Macmillan

VCE Accounting

Units 3 & 4

5th edition

Neville Box

Edited by Keith King

CPA AUSTRALIA

Macmillan

VCE Accounting

Units 3 & 4

5th edition

Neville Box

Edited by Keith King

First edition published 1994 (reprinted 4 times)
Second edition published 1999 (reprinted twice)
Third edition published 2002 (reprinted 5 times)
Fourth edition published 2006 (reprinted 5 times)
Fifth edition published 2011 by
macmillan education australia pty ltd
15–19 Claremont Street, South Yarra, VIC, 3141

Visit our website at www.macmillan.com.au

Associated companies and representatives
throughout the world.

National Library of Australia Cataloguing-in-Publication entry

Author:	Box, Neville.
Title:	VCE Accounting : Units 3 & 4 / Neville Box.
Edition:	5th ed.
ISBN:	978 1 4202 3058 1 (pbk.)
Target Audience:	For secondary school age.
	Subjects: Accounting—Problems, exercises, etc.
	Accounting—Study and teaching (Secondary)—Victoria.
	Victorian Certificate of Education examination—Study guides.
Dewey Number:	657.044

Publisher: Benjamin James
Project editor: Laura Howell
Editor: Carolyn Leslie
Illustrators: Marg Jackson, Guy Holt
Cover designer: Dimitrios Frangoulis
Text designer: Polar Design
Production control: Loran McDougall
Permissions clearance: Liz Sim
Photo research: Kait Jordan
Typeset in 10.75 pt ITC Garamond by Marg Jackson, Emtype Desktop Publishing
Cover image: Getty Images/Helen Ashford
Indexer: Fay Donlevy

Printed in Malaysia

Contents

Foreword *ix*
Introduction *x*
CPA passport program *xi*
Acknowledgements *xii*

UNIT 3 Recording and reporting for a trading business **1**

Chapter 1 The nature of accounting **2**

1.1 The need for financial information 3
1.2 The uses of financial information 3
1.3 The role of accountants 4
1.4 The development of accounting standards in practice 5
1.5 Statements of accounting concepts 6
1.6 International accounting standards 10
1.7 Accounting principles 10
Glossary of terms 12
Summary questions 13
Practical exercises 14
Internet activity 16

Chapter 2 Balance sheets **17**

2.1 Balance sheets 18
2.2 Classification in the balance sheet 20
2.3 Classification of loans 22
2.4 Financial transactions and balance sheets 23
Glossary of terms 28
Summary questions 29
Practical exercises 29
Case study 35
Internet activity 36

Chapter 3 Analysing and designing accounting systems **37**

3.1 The basic accounting process 38
3.2 The GST and business documents 38
3.3 General business documents: cash transactions 40
3.4 Business documents: credit transactions 41
3.5 Memorandums for internal transactions 43
3.6 Statements of account 43
3.7 Other business documents 44
3.8 Information flows: the use of business documents 46
3.9 Information flows: an overview of an accounting system 47
3.10 Manual versus computerised accounting systems 48
Glossary of terms 50
Summary questions 51
Practical exercises 52
Case study 56
Internet activity 56

Chapter 4 The double entry recording process 57
4.1 Double entry accounting: an introduction 58
4.2 Double entry for revenues and expenses 62
4.3 Footing and balancing ledger accounts 65
4.4 The role of the trial balance 67
4.5 Detecting errors through a trial balance 68
4.6 Alternative presentation of a trial balance 68
4.7 Case study: from transactions to the balance sheet 69
4.8 Accounting for drawings 73
Glossary of terms 73
Summary questions 74
Practical exercises 75
Case study 84

Chapter 5 Special journals: cash transactions 86
5.1 The need for special journals 87
5.2 The role of special journals 87
5.3 Recording in the cash receipts journal 88
5.4 Recording in the cash payments journal 92
5.5 Recording cash discounts for debtors and creditors 95
Glossary of terms 98
Summary questions 98
Practical exercises 99

Chapter 6 Credit sales and credit purchases journals 105
6.1 Credit transactions 106
6.2 Recording in the credit sales journal 106
6.3 The need for control accounts 109
6.4 Debtors schedules 110
6.5 The cash receipts journal and debtors control 111
6.6 Recording in the credit purchases journal 111
6.7 The creditors control account 113
6.8 Creditors schedules 114
6.9 The cash payments journal and creditors control 114
6.10 Advantages and disadvantages of control accounts 115
Glossary of terms 116
Summary questions 117
Practical exercises 118
Case study 130

Chapter 7 The general journal 131
7.1 The need for a general journal 132
7.2 The format of the general journal 132
7.3 Posting a general journal entry 133
7.4 The general journal and subsidiary ledgers 133
7.5 Establishing a double entry system 135
7.6 Recording the contribution or withdrawal of assets by an owner 138
7.7 Donations of stock and business advertising 140

7.8 Accounting for bad debts 140
7.9 Correcting recording errors through the general journal 143
Glossary of terms 145
Summary questions 146
Practical exercises 147

Chapter 8 Accounting for the goods and services tax (GST) 153
8.1 The GST: an introduction 154
8.2 GST and the sales journal 154
8.3 GST and the purchases journal 156
8.4 The GST clearing account 157
8.5 GST and the cash receipts journal 159
8.6 GST and the cash payments journal 161
8.7 GST and double entry accounting 164
Glossary of terms 165
Summary questions 165
Practical exercises 166
Case study 171

Chapter 9 The perpetual inventory system 175
9.1 What is inventory? 176
9.2 The physical stocktake 176
9.3 What is perpetual inventory? 177
9.4 The stock control account 178
9.5 Double entry under the perpetual method: a summary 179
9.6 Identifying the cost price of sales 179
9.7 First in, first out stock valuation 183
9.8 The role of stock cards 184
9.9 Stock cards and the general ledger 186
9.10 Stock losses and stock gains 187
9.11 Recording stock losses and gains 188
9.12 Donations of goods as advertising 192
9.13 From stock cards to journals 193
Glossary of terms 197
Summary questions 198
Practical exercises 199

Chapter 10 Closing the general ledger 212
10.1 The closing of the general ledger 213
10.2 The profit and loss summary account 213
10.3 Closing a ledger account 214
10.4 The general journal and closing entries 215
10.5 The general journal: transfer of net profit 216
10.6 Closing entries: accounting for a net loss 218
10.7 Case study: the closing of the ledger 219
Glossary of terms 222
Summary questions 223
Practical exercises 223

Chapter 11 Income statements 231

11.1 The income statement 232
11.2 Preparing an income statement 232
11.3 The link between profit and the balance sheet 234
11.4 Evaluating a net profit figure 234
11.5 Cost of goods sold and gross profit 235
11.6 Reporting discounts 237
Glossary of terms 238
Summary questions 238
Practical exercises 239
Case study 245

Chapter 12 Cash flow statements: an introduction 246

12.1 The role of the cash flow statement 247
12.2 Classification of cash flows 247
12.3 The concept of cash 249
12.4 The format of the cash flow statement 249
12.5 Preparing a cash flow statement 252
12.6 Cash flows and decision-making 254
Glossary of terms 255
Summary questions 255
Practical exercises 257
Case study 266

Chapter 13 Depreciation of non-current assets 269

13.1 The meaning of depreciation 270
13.2 The meaning of cost 270
13.3 Straight-line method of depreciation 271
13.4 The adjusting entry for depreciation 272
13.5 Depreciation and the balance sheet 275
13.6 Depreciation and the income statement 276
Glossary of terms 276
Summary questions 277
Practical exercises 278
Case study 281

Chapter 14 Profit determination and balance day adjustments 282

14.1 Profit determination: underlying assumptions 283
14.2 Accrual accounting and balance day adjustments 284
14.3 Prepaid expenses (the asset approach) 284
14.4 Accrued expenses (expenses owing) 287
14.5 Stock losses and gains 290
14.6 Case study: adjusting and closing entries 291
14.7 The adjusted trial balance 297
Glossary of terms 298
Summary questions 299
Practical exercises 300
Case study 308

UNIT 3 PRACTICE EXAM 310

UNIT 4 Control and analysis of business performance 325

Chapter 15 Accounting for sales returns and purchases returns 326
15.1 Credit notes for returns 327
15.2 Purchases returns 327
15.3 Sales returns 330
15.4 Recording returns in stock cards 332
Glossary of terms 336
Summary questions 337
Practical exercises 337

Chapter 16 The reducing balance method of depreciation 346
16.1 The need for an alternative method of depreciation 347
16.2 The straight-line method of depreciation 347
16.3 The reducing balance method of depreciation 348
16.4 Depreciation methods: a comparison 350
16.5 Depreciation methods: which one to use? 354
Glossary of terms 355
Summary questions 355
Practical exercises 356

Chapter 17 Buying and selling non-current assets 360
17.1 Recording credit purchases of non-current assets 361
17.2 Disposal of non-current assets 362
17.3 Trading in non-current assets 365
Glossary of terms 368
Summary questions 369
Practical exercises 369
Case study 374

Chapter 18 Inventory valuation 375
18.1 Product costs versus period costs 376
18.2 Lower of cost and net realisable value 377
18.3 Determining the NRV of a product 381
Glossary of terms 383
Summary questions 383
Practical exercises 384
Case study 389

Chapter 19 Balance day adjustments: prepaid revenue and accrued revenue 391
19.1 What is revenue earned for a period? 392
19.2 Prepaid revenue (the liability approach) 392
19.3 Prepaid sales revenue 395
19.4 Accrued revenue (revenue owing) 398
Glossary of terms 401
Summary questions 402
Practical exercises 403
Case study 1 407
Case study 2 409

Chapter 20 Managing and controlling debtors, creditors and stock 411

20.1 Controlling inventory 412
20.2 Evaluating stock turnover 416
20.3 Controlling debtors 419
20.4 Evaluating debtors turnover 421
20.5 Evaluating the cash cycle 423
20.6 Evaluating creditors turnover 424
Glossary of terms 427
Summary questions 428
Practical exercises 429
Case study 434

Chapter 21 Budgeting: planning for the future 435

21.1 The need for budgeting 436
21.2 Cash budgeting 437
21.3 Case study: preparing a budgeted cash flow statement 439
21.4 Budgeted income statements 444
21.5 Case study: preparing a budgeted income statement 445
21.6 The budgeted balance sheet 447
21.7 Case study: preparing a budgeted balance sheet 447
21.8 Budget variance reports 450
Glossary of terms 454
Summary questions 455
Practical exercises 456
Case study 468
Internet activity 469

Chapter 22 Analysis and interpretation of accounting reports 470

22.1 The role of analysis and interpretation 471
22.2 Distinguishing between analysis and interpretation 471
22.3 Analytical ratios 475
22.4 Ratio benchmarks 476
22.5 Types of analytical ratios 476
22.6 Profitability ratios 477
22.7 Operating efficiency ratios 482
22.8 Efficiency ratios and profitability 485
22.9 Liquidity analysis 486
22.10 Liquidity analysis and cash flows 489
22.11 Gearing and financial stability 491
22.12 Gearing and the rate of return on owner's investment 492
22.13 Other analysis tools 494
22.14 Limitations of ratio analysis 498
Glossary of terms 498
Summary questions 499
Practical exercises 501
Case study 510
Internet activity 512

UNIT 4 PRACTICE EXAM 513

Index 525

Foreword

You have chosen to study a subject that gives you a real opportunity for the future. I know this because I am CEO of CPA Australia, one of the largest business and accounting bodies recognised throughout the world.

These days, accounting is about much more than numbers. It is a pathway to a career that gives you great opportunities and a formidable basis to branch into any career you desire.

If you go on to study accounting at tertiary level, you will have even greater potential for earnings, job security, job satisfaction and travelling and working overseas. Many of today's business leaders started with an accounting degree and then moved onto a professional designation.

Once you have a basic understanding of business principles, you can apply them to almost anything – even accounting for sustainability. Accountants have a significant role to play in the international financial systems of the future. One of the profession's greatest challenges will be to help merge an understanding of economic value with environmental and social value.

Accountants identify, measure and communicate financial and non-financial information for business leaders to make informed judgements and decisions. Their approach is methodical, logical and analytical, and the leadership and personal skills accountants learn give them the tools to communicate their findings. More and more in business, accountants are relied upon to provide advice, or to become decision-makers themselves.

A basic knowledge of accounting stands you in good stead to be anything you want to be. If you go on to study at university level, you can branch into any other area of the business world.

With an accounting background, you can aim to be: a business leader, an entrepreneur, an investor, a business analyst, a market analyst, a financial journalist, a chief financial officer, a management accountant, a business adviser in corporate restructuring or insolvency, a tax accountant, a financial planner/ superannuation adviser, a financial accountant, an auditor, a cost accountant, a banking officer, an information systems designer, a stockbroker … the list goes on.

Join CPA Passport to keep your options open. Details are available at cpaaustralia.com.au/advantage

Alex Malley
Chief Executive Officer
CPA Australia

Introduction

VCE Accounting Units 3 & 4, fifth edition, is an introductory text in double entry accounting, based on the perpetual inventory system. The First, In First Out (FIFO) assumption of stock flows has been used in recording transactions involving inventory. This text concentrates on the areas of study as defined for Units 3 and 4 of the Victorian Certificate of Education (VCE) Accounting course, 2012–2016. This text is also suitable for final year studies in Accounting at the secondary level. Prior knowledge of Accounting is not required to complete the material covered in this text.

Features

At the end of each chapter:

- a **glossary of key terms** lists new terms introduced in the chapter. Accounting uses many specialist terms and it is vital that students use the terms appropriately, particularly in final examinations
- **summary questions** highlight the major theoretical concepts introduced in each chapter. Students can complete questions progressively as they work through the chapter, preparing summaries as they go
- **practical exercises** challenge students as they become progressively more difficult. Teachers may recommend that students complete every exercise in a chapter, or select specific exercises. Ideally, all exercises should be attempted to ensure thorough coverage of the material.

Some chapters also contain:

- **Case studies** revising topics covered in a series of chapters and testing for greater understanding of the accounting system. Case studies may be used as revision material, as homework exercises or as part of a folio of exercises.
- **Internet activities** supplementing and complementing the core material presented in the book. Teachers and students are encouraged to use the internet in Accounting to access up-to-date information and to stimulate interest in the world of business.

Two **practice exams** are provided in this text, one at the end of each unit. The questions have been written in a similar style to the final examination, and space has been provided for written answers. Students are encouraged to use the practice exams as part of their overall revision program.

OneStopDigital

This new fifth edition of *VCE Accounting Units 3 & 4* includes Microsoft® Excel® templates for many of the practical exercises in the text. The exercises supported by these templates are indicated in the text by an icon next to the question number. In the 2012–2016 VCE study design all students are required to complete some of their school-assessed coursework using ICT, so teachers and students are encouraged to use these templates as part of their assessment.

Feedback

Neville Box, the author of this text, is happy to receive feedback about the book or to answer questions from colleagues in the teaching profession. Email: **box.neville.n@edumail.vic.gov.au**

CPA passport program

Acknowledgements

I would like to extend my thanks to Macmillan Education Australia for the opportunity to write the fifth edition of these VCE texts. In particular, I would like to thank several individuals that have made a significant contribution to this book. To Ben James, thank you for overseeing this latest project and also for having the foresight to explore some new ideas and concepts for the text. To Laura Howell, I say thank you for your professional approach and for your great eye for detail. It has been invaluable to have you as part of the team on this project. To Carolyn Leslie, I thank you for your enthusiastic support and for your assistance with this text. I thank you for your professionalism—your knowledge of accounting has proven to be invaluable.

A special thank you once again to Keith King, my consulting editor for this text. It is always reassuring to have someone as experienced as Keith watching over my work. I feel privileged to have been given the opportunity to work with Keith over many years on the Macmillan series. Thank you, Keith, for your guidance, your advice and for your continued support.

Having moved on from St Joseph's College, North Melbourne after 30 years of service, I express my sincere gratitude to the many people I have known in the St Joseph's community. Thank you and farewell. May you all continue to *Let Your Light Shine* and may the memories live on. The writing of this text started in my last year at St Joseph's and has been completed in my first year at my new 'home', Victoria University Secondary College. Thank you to my new Principal, Genevieve Simson, for your encouragement and support with this new text. Victoria University is an exciting new venture in education. I feel privileged to be part of it as it strives to become a significant provider of education in Melbourne.

Neville Box
Victoria University Secondary College
March 2011

Dedication

To my two favourites, Andrew and Michelle—thank you for your ongoing support.
And to Therese, thank you for everything.

The author and publisher are grateful to the following for permission to reproduce copyright material:

Photographs

iStockphoto.com/Xavier Arnau, **252**, /Adrian Assalve, **36 (left)**, /Leen van der Bent, **276**, /Robert Churchill, **454**, /Steve Cole, **345**, /Ruslan Dashinsky, **83**, /DNY59, **34**, /erel photography, **367**, /Rob Friedman, **408**, /Lise Gagne, **373**, /gehringj, **210**, /Izvorinka Jankovic, **74**, /Joshua Hodge Photography, **16**, **239**, /KingWu, **126**, /Rich Legg, **226**, /Sean Locke, **359**, /René Mansi, **28**, /mediaphotos, **36 (right)**, /Aldo Murillo, **225**, /Tamara Murray, **11**, /Nikada, **147**, **262**, **410**, **427**, /MACIEJ NOSKOWSKI, **390**, **512**, /nyul, **117**, /pamspix, **12**, /Pgiam, **161**, /Matej Pribelsky, **81**, /RainforestAustralia, **401**, /redmal, **129**, /Amanda Rohde, **116**, /TommL, **304**, /Sawayasu Tsuji, **56**, /Jacob Wackerhausen, **222**, **261**, **428**, **469**, /Rudyanto Wijaya, **197**, /YouraPechkin, **509**; Shutterstock.com/Aaron Amat, **51**, /Benis Arapovic, **145**, /Yuri Arcurs, **50**, **85**, **240**, **298**, **340**, **341**, /Mars Evis, **36 (bottom)**, /Stuart Jenner, **248**, /Yuganov Konstantin, **53**, /Ilja Mašík, **265**, /Dmitriy Shironosov, **227**, **466**, /StockLite, **374**, /Ximagination, **388**.

Other material

© 2005. Reproduced with the permission of CPA Australia Ltd and the Institute of Chartered Accountants in Australia, **6**, **7**, **8**, **9**.

While every care has been taken to trace and acknowledge copyright, the publisher tenders their apologies for any accidental infringement where copyright has proved untraceable. They would be pleased to come to a suitable arrangement with the rightful owner in each case.

UNIT

1 2 3 4

Recording and reporting for a trading business

Chapter 1

The nature of accounting

OBJECTIVES

At the completion of this chapter, you should be able to:

- explain the need for financial information by small businesses
- describe the uses of financial information in relation to small businesses
- name the different users of accounting information and the purposes for which it can be used
- outline the role of professional accountants as suppliers of financial information
- outline the role of accounting standards
- outline the purpose of Statements of Accounting Concepts (SACs)
- describe the features of each of the two SACs
- describe the qualitative characteristics of accounting information: relevance, reliability, comparability and understandability
- define assets, liabilities, owner's equity, revenues and expenses
- explain the accounting principles of consistency, historical cost, entity, reporting period, monetary unit, conservatism and going concern.

ISBN 978 1 4202 3058 1

1.1 The need for financial information

The role of accounting in relation to small business is often underestimated. When looking at a business the owner obviously needs to know whether or not the firm is earning a profit. Accounting does have the role of reporting information about profits or losses, but this is only one example of valuable accounting information. Accounting should be seen as part of an overall management strategy. Financial information relating to all facets of a business should be readily available. An owner and/or manager of a business will usually require financial information to help him or her answer the following typical questions:

- Is the firm's profit improving or declining?
- Is the owner earning a sufficient return on the investment in the business?
- How much money (if any) can the owner withdraw from the business?
- Has the business enough liquid funds to continue trading?
- Can the firm meet its repayments of any outstanding loans?
- Is the business financially stable?
- Are the firm's credit customers paying on time?
- What is the cost of the firm's assets, and how are they financed?

Questions such as these are typical queries that require answers from the owners or the managers of small businesses. Unfortunately, many small businesses collapse due to a lack of available, meaningful information. If a business owner is well informed in relation to all aspects of the firm, it has a better chance of not only surviving but of being successful. Accounting provides the financial information to help management make better decisions. In order to do so, financial data must be collected, sorted, classified, recorded and finally reported in a meaningful form. These steps make up the basic accounting process and will be covered in detail in the chapters that follow.

1.2 The uses of financial information

There are many different uses of financial information relating to a small business. The nature of these uses varies immensely, as each is dependent on its intended purpose. An accounting report may be quite useful for one purpose, yet be of little value for another. For example, a manager of a business would be most interested to read a report showing a 10 per cent increase in monthly sales. However, the firm's bankers would be concerned if their report reveals that the overdraft of the business has increased for the fourth consecutive month. What is valuable information to one user of accounting may be less important or irrelevant to another user. Therefore, it is the **user** of the financial information who determines **how** it is to be **used**. Accounting must meet the needs of the individual user and therefore must be flexible enough to satisfy a variety of purposes. Some of the main users of accounting information are listed below with examples of their areas of interest:

- **Owner/manager:** profit, liquidity, stability, sales, growth, budgets, stock management, debtors, creditors, rates of return.
- **Prospective owners:** budgets, future earnings, predicted returns, stability, prospects of growth.
- **Banks/lenders:** liquidity, stability, budgets.
- **Suppliers of goods or materials:** credit rating, reliability, stability.

ISBN 978 1 4202 3058 1

- **Government departments:** e.g. Taxation Department, Bureau of Statistics, Small Business Victoria—these have specific needs pertaining to their own specialist areas.
- **Employees/unions:** stability of employment, profits, the likelihood of wage increases.
- **Customers:** pricing, credit facilities, future trading opportunities.

If all of the above needs are considered, it becomes apparent that accounting does not involve one set of financial reports to satisfy all users. It should also be kept in mind that accounting is not expected to provide answers to all business problems. However, it is a tool that can be used to collect raw data, sort and classify it and then collate it into a report to satisfy a particular need. The needs of the owner and/or management will usually be the most detailed and cover a variety of areas. Yet it is wrong to assume that reports prepared for management will satisfy all other users of financial information. The accounting system does record the raw data, but it has to be put into a meaningful form to suit the individual user. If the accounting system functions properly, meaningful reports can be prepared and individuals involved in decision-making will be better informed. As financial information is often the basis of decision-making involving a variety of people, accounting has a vital role to play in communicating accurate and useful information on time.

1.3 The role of accountants

In past times accountants were often looked on merely as record-keepers. Bookkeepers were employed to keep financial records of all types of business transactions and these records were then used by management to make decisions. Fortunately this view of accounting is now outdated, as accountants are now at the forefront of management decision-making. With the ever-increasing use of computer technology the actual record-keeping process has been streamlined. This has allowed accountants to have more input into the interpretation of results as part of a management team. The collection of data is much quicker and more accurate through the use of computer packages. The key question for small business owners is now 'What does it all mean?' It is the role of the accountant to assist in the interpretation of results and to help management make better decisions in the future. However, not all small business owners have the resources to employ their own specialist accountants.

At this point, the different types of accountants will be outlined. They can be divided into four main groups, namely public accountants, private accountants, government accountants and academic accountants.

Public accountants work in business for themselves. They may be sole proprietors, but are quite often in partnership with several other accountants. As public accountants they serve individuals or business owners by providing expert advice on financial matters. Their areas of expertise may include such things as taxation, finance, auditing, business structure, small business management, record keeping, computerised accounting, stock control and credit control. Accountants in public practice are usually members of the Institute of Chartered Accountants in Australia (ICAA) or CPA Australia (the company and business name for the Australian Society of Certified Practising Accountants, or ASCPA). These two professional bodies have their own qualifying procedures to ensure that their members are highly trained professional accountants. This usually includes a recognised tertiary qualification (such as a Commerce or Business degree), practical working experience with a qualified accountant and ongoing professional development. Small business owners should use public accountants on a regular basis, as they can provide an insight into the financial results achieved by a business. The public accountant should be viewed as a valuable resource, since many small business owners have little or no training in accounting.

ISBN 978 1 4202 3058 1

Private accountants are employed by one particular business as a private employee. Larger sized firms employ accountants on a full-time basis to use their expertise for the benefit of the business. Companies often have a team of accountants who specialise in various areas. Business record keeping, taxation, budgeting, payroll, stock control and credit control are all examples of areas of accounting that need to be covered at the local level. Private accountants are also usually members of the ICAA or CPA Australia, but choose to work for one employer rather than in public practice.

Government accountants are employed by government departments and authorities in the same way as larger businesses employ their own accountants. Federal, state and local governments are all involved in complex financial transactions. Results of a year's receipts and payments are required from all three types of governments, and each is heavily involved in budgeting for future events. This also applies to government instrumentalities such as VicRoads. Although government departments may not have the same profit motive as businesses, there is still a need to report accurate financial information.

Academic accountants are clearly the smallest group of qualified accountants. Some members of the ICAA and CPA Australia work in academia and are usually employed in tertiary education or in research for the professional bodies. As well as helping to educate future accountants, many academics play a role in the development of **accounting standards**. The standards set out the generally accepted accounting principles, which all members of the professional bodies are obliged to follow. The aim of these standards is to ensure that accountants prepare their reports in an acceptable form using approved accounting techniques. When accounting is being carried out for a company these standards take on even more importance, as they are enforceable by law when an accountant is preparing reports.

1.4 The development of accounting standards in practice

In 1966 the Australian Accounting Research Foundation (AARF) was formed as a joint initiative of the Institute of Chartered Accountants and the Australian Society of Certified Practising Accountants (now called CPA Australia). The aim of this body was to improve the quality of the reporting function of accounting through a more consistent approach across the profession. The outcome of this initiative was the introduction of thirteen accounting standards over the period 1966–78. Given the perceived importance of accounting standards at the time, the Accounting Standards Board (ASB) was established as a body within the AARF. In 1983 a need was identified for a further body to be established to oversee the formation of accounting standards specifically designed for the public sector. This was known as the Public Sector Accounting Standards Board (PSASB), and the ASB continued as the body responsible for standards relating to the private sector. Both of these bodies remained under the ultimate control of the AARF.

The setting of accounting standards had attracted considerable criticism from the moment the first standard was issued. Some concerns included the problem of applying standards to all forms of accounting and of enforcing the standards on accountants who might or might not be members of the professional bodies. The government was also keen to criticise the profession and in 1984 established the Accounting Standards Review Board (ASRB). Its role was to review and approve accounting standards. During 1984 the *Companies Act* was also amended to make accounting standards law for company accounts. This legislation gave the standards legal backing for all company accounting, which was necessary to stem the tide of criticism levelled at the standards over the years. The ASRB eventually took over the role of the ASB as the body responsible for setting standards for the private sector. The Australian Accounting

ISBN 978 1 4202 3058 1

Standards Board (AASB) then replaced the ASRB in 1991 as part of revised legislation relating to corporations. This was backed by the Australian Securities and Investments Commission (ASIC), thus giving the standards national coverage. Accounting standards continue to be revised and reviewed and members of the profession have a commitment to keep up to date with the most recent pronouncements. Although the study of accounting standards is more relevant to tertiary studies of accounting, it is important to understand that the accounting taught at the secondary level is also based on the principles and procedures prescribed by the standards. All students of accounting should appreciate the need for accounting standards and the role played by the standards in Australia.

1.5 Statements of accounting concepts

In the 1990s a new challenge was issued to the accounting profession. The AASB and the PSASB commenced work on four general **statements of accounting concepts** (commonly referred to as SACs). These statements were designed to complement the accounting standards and provide interpretations of standards as and when required. The conceptual statements did not supersede the official accounting standards. Rather, they were designed to provide the conceptual framework within which the accounting standards are supposed to work. The four Statements of Accounting Concepts were:

SAC1: Definition of the reporting entity
SAC2: Objective of general purpose financial reporting
SAC3: Qualitative characteristics of financial information
SAC4: Definition and recognition of the elements of financial statements.

The SACs represented the latest attempt by the professional bodies to have all members of the profession working within the same conceptual framework. The objective of achieving consistent methods in accounting applications across all segments of the profession has been the goal of the professional bodies since the formation of the AARF in 1966. The work in the 1990s on the Statements of Accounting Concepts was another attempt in the long-running battle to achieve this objective. In 2005 the accounting profession moved to adopt a set of international accounting standards (see page 10) and this had an immediate impact on the SACs. The most dramatic impact was that SACs 3 and 4 became superseded and are now no longer in existence. The professional bodies in Australia then decided that SACs 1 and 2 would be maintained to support the international standards and these two statements would be modified as required in the future.

Although an intricate knowledge of the complete SACs may not be necessary for secondary school students, it is important to realise that the SACs provided the basic conceptual framework for accounting in Australia in the 1990s. In particular, the SACs provided definitions of basic terms and the fundamental rules that affect the accounting procedures carried out in the day-to-day operations of all businesses. As described above, some of the SACs have been modified in recent times, but the basic definitions remain. The following outlines of SACs 1 and 2 have been provided to highlight the major features of the SACs in relation to VCE Accounting units.

SAC1: Definition of the reporting entity

> The purpose of this statement is to define and explain the concept of a reporting entity and to establish the minimum required quality of reporting for such an entity. (paragraph 3, SAC1[1])

1 Copyright CPA Australia. Reproduced with the permission of CPA Australia.

ISBN 978 1 4202 3058 1

This SAC also sets out the circumstances whereby a business or other entity should be identified as a reporting entity. Sometimes a reporting entity is easily identifiable. In the case of a company, a separate legal entity is created when it is formed. Companies have legal obligations to prepare particular accounting reports for groups of users such as their shareholders, the Australian Securities Exchange (ASX) and the Australian Securities and Investments Commission (ASIC). Governments and government departments also have an obligation to report on their financial activities and therefore are clearly reporting entities. Other examples of easily identifiable reporting entities include partnerships, trusts and associations. In general terms, if it can be seen that there are a number of users of financial reports in existence in relation to a particular entity, then the definition of being a reporting entity is satisfied.

SAC2: Objective of general purpose financial reporting

> The purpose of this statement is to establish the objective of general purpose financial reporting by reporting entities in the private and public sector. The statement identifies the users of general purpose financial reports, the common information needs of such users and the broad types of information, consistent with those needs, that general purpose financial reports should provide. (paragraph 3, SAC2[1])

The basic objective of **general purpose financial reports** is to provide relevant and reliable information to users of reports to allow them to make financial decisions. If users are going to be able to make informed decisions, there is a responsibility on the reporting entity to prepare adequate financial reports. The broad types of information to which the statement refers can include reporting on such matters as the economic condition of the entity, the financing of its operations, its basic financial structure or its investing activities. As users of accounting reports do not all have the same goals or interests, general purpose financial reports need to be prepared in such a way as to be useful for this wide variety of users. SAC2 describes these characteristics of general purpose reports in light of the general objective of providing relevant and reliable information. Furthermore, SAC2 specifies that, for accounting information to be valuable, it must satisfy the following requirements, known as the **qualitative characteristics** of accounting.

a **Relevance:** For accounting information to be useful in the hands of the users of reports it must be based on information that is of relevance to the entity under examination. If information is likely to influence a financial decision by a user of a report it is deemed to be relevant. The **accounting entity principle** has a vital role to play in this area, as it ensures that personal transactions are omitted and only those events relevant to the business entity are recorded and reported. Accountants have a general responsibility to ensure that all relevant information is presented in general purpose financial reports.

In some situations, the nature of an item is not sufficient to decide whether or not an item is relevant, as the dollar value of the item is also important. This test of relevance is known as **materiality**, which is not a separate qualitative characteristic. Information is said to be of material importance if its omission could influence the decision-maker of the user of accounting. Thus, materiality is said to provide a threshold test to help accountants decide if an item is significant enough to be reported as a relevant item.

b **Reliability:** As a wide range of financial decisions may be influenced by accounting reports, there is a high expectation that such reports contain reliable information. Business documents play a key role here, as they provide verifiable evidence of financial transactions. That is,

1 Copyright CPA Australia. Reproduced with the permission of CPA Australia.

ISBN 978 1 4202 3058 1

information can be deemed as reliable if it can be checked against a business document and is not subject to personal bias or opinion.

c **Comparability:** One of the key roles of accounting is to report on changes in a firm's performance over consecutive reporting periods. The users of reports must therefore be able to compare results from different periods. In order to make such comparisons valid, accounting methods must be applied **consistently** from one reporting period to the next. Therefore, in order to achieve comparability, users need to be fully informed as to the methods used to prepare reports and any changes in approaches used from one year to the next. The second aspect of comparability is the ability of users of accounting to make comparisons between the performances of different businesses. If all accounting reports are prepared in line with the qualitative characteristics outlined in the SACs, users should be able to make valid comparisons with greater confidence.

d **Understandability:** Accounting reports, by their very nature, are often quite complex and contain specialised terminology. The quality of understandability refers to reports being prepared in such a way that general users are able to comprehend their meaning. Given that many users of reports are not accountants and may have limited accounting knowledge, it is important to prepare reports so that as many users as possible can have a basic understanding of what the report is trying to show. It is valuable therefore to use a standard layout (if possible), to use descriptive headings and to supplement reports with explanatory notes when required.

The preparation of general purpose financial reports, as described in SAC2, is based on the use of several key elements of accounting. The definitions of such elements were originally defined in the now superseded SAC4. However, they have now been absorbed as part of SAC2, as they play an essential role in report preparation. The following key terms will be used throughout this text and are based on the definitions as prescribed in SAC2.

> **Assets** are resources controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity.[1]

According to this definition, an asset may be in the form of cash, it may be a vehicle, it can be a debt owed to a business by a customer (that is, a debtor), or it can be a leasehold over a property. As long as there is an economic benefit **controlled** by the entity and a cost or other value can be identified, the item should be reported as an asset.

> **Liabilities** are present obligations of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.[1]

Liabilities will therefore include commitments, or obligations, to creditors and loans due for repayment in future reporting periods. This classification can also include items such as future obligations for employees' long service leave or anticipated debts for legal expenses. The requirement for recognition emphasises that the future sacrifice will **probably** be required, so long as it can be reliably measured. Therefore, if management anticipates a future commitment or economic sacrifice of resources this should be reported in the end-of-period reports.

> **Owner's equity** is the residual interest in the assets of the entity after deduction of its liabilities.[1]

This definition of equity is based on the following accounting equation:

Assets = Liabilities + Owner's equity

(A = L + OE)

---

1 Copyright CPA Australia. Reproduced with the permission of CPA Australia.

ISBN 978 1 4202 3058 1

This equation can also be expressed in a second form to highlight the equity of the owner of a business (also known as the net worth of the owner) as defined in SAC2:

Owner's equity = Assets – Liabilities

(OE = A – L)

It is clear that the value of the owner's equity is dependent on what values are included in a report under the headings of assets and liabilities. If additional economic resources came under the control of an entity, this would lead to an increase in the firm's assets and therefore the owner's equity would also increase. In contrast to this, if there was an increase in the future obligations of an entity, this would increase the liabilities of the business and therefore lead to a reduction in the equity of the owner. Further discussion of these terms and the presentation of such material in accounting reports will be covered in chapter 2.

> **Revenues** are increases in economic benefits during the reporting period in the form of inflows or enhancements of assets or decreases in liabilities that result in increases in equity, other than those relating to contributions from the owner.[1]

Revenue will therefore include sales of goods or the provision of services for either cash or on credit. In both cases an increase in assets occurs as the firm has control over a future economic benefit in the form of cash or debtors. As long as the transaction can be reliably measured (verified by business documents) the revenue item may be recognised. However, revenue may also include items such as interest on investments, commissions on sales and reductions in debts. For example, a reduction in a liability may occur if a creditor offers a discount for prompt payment. If a firm settles its debts promptly and receives a discount from a creditor, this satisfies the definition of a revenue item as defined above. As long as there is an inflow of resources (other than from the owner) or a savings in an outflow (such as a discount) a revenue item should be recognised.

> **Expenses** are decreases in economic benefits during the reporting period in the form of outflows or depletions of assets or incurrences of liabilities that result in decreases in equity, other than those relating to distributions to equity participants.[1]

Assets have been defined as resources under the control of an entity that have future economic benefits. If the entity sacrifices such benefits in its day-to-day operations, the assets become expenses. Assets are often consumed by businesses in order to earn revenue. For example, a trading business endeavours to sacrifice the goods it controls in order to sell them at a higher price and earn revenue. A builder may deplete its stock of building materials in the practice of constructing a home. Such materials would have been an asset to the business until they were depleted or sacrificed; at which time they became expenses.

The definitions of revenues and expenses are vital in relation to determining a profit result for a business. The **income statement** reports on the revenues and expenses for a particular reporting period, which is a reflection of the operating success (or failure) of the firm over that given period of time. The revenues for the period are totalled and from this figure the total expenses for the period are deducted. The net result is either a profit (where revenues exceed expenses) or a loss (where expenses exceed revenues). Further details regarding the presentation of such information will follow in subsequent chapters.

ISBN 978 1 4202 3058 1

1.6 International accounting standards

The 21st century is now witnessing the further development of accounting standards to an international level. In 2005, the accounting profession in Australia gave a commitment to the adoption of a set of internationally recognised accounting standards. Although a full understanding of international standards is not required by secondary school students, you should be aware of their existence. You should also be aware of their impact on the profession and the influence they have had on the work done by accountants. The immediate impact of the international standards was the replacement of SACs 3 and 4. However, in 2005 the Australian Accounting Standards Board stated their intention to maintain SACs 1 and 2 in one form or another. As the area of Accounting Standards and Statements of Accounting Concepts is quite complex, secondary students should simply appreciate that, jointly, these documents provide the framework of rules and regulations that govern accounting practices. They provide the basic definitions of accounting terms, the framework of what we do in accounting and the way in which accounting reports should be prepared. The development of standards at an international level is bound to continue for many years to come.

1.7 Accounting principles

Accounting principles are the basic rules of accounting, which have become acceptable procedures over time. Whereas accounting standards are laws for members of the professional bodies to follow, accounting principles are the basic rules of accounting. Together these principles form a set of rules that allow accounting records and reports to be prepared in a similar way, regardless of the type of business under examination or the form of its ownership. The more important principles are listed below.

The **consistency principle** demands that the accounting methods used are applied consistently from one reporting period to another. By consistently applying the same accounting techniques, comparisons of performance can be made over time. If constant changes were allowed comparisons would be extremely difficult, if not impossible. For example, if management changed accounting methods from one year to the next the profit for the business may appear to be improving. However, the change may simply be the result of adopting a different method of determining profit. Profit results would be very difficult to interpret if accounting methods were constantly changing from one period to the next. The principle of consistency supports the qualitative characteristic of **comparability,** as the demand for consistency is made so that comparisons of results are meaningful.

The **historical cost principle** is a rule that states that all transactions are recorded at their original cost price. This means that assets are not valued at what they could be sold for at the present time. All items stay in the accounting records at their historical, or original, price. This method is quite objective because it relies on evidence from documents such as invoices and receipts. It deals with facts and not opinions (refer SAC2—**reliability**). It should be noted that there are some exceptions to this rule. For example, although most assets lose value over time, land normally appreciates in value and may be revalued in some circumstances (refer SAC2—**assets**).

The **accounting entity principle** is the basic principle that the personal transactions of the owner(s) should be kept separate from those of the business. If this principle were not followed it would be impossible to evaluate the performance of the business. Therefore, for accounting purposes the business is always viewed as a separate entity, regardless of whether the firm is a sole trader, a partnership or a company (refer SAC2—**relevance**).

ISBN 978 1 4202 3058 1

The **reporting period principle** seeks to address a problem that arises once it is assumed that a business will go on forever. There are many people interested in how a business is performing in terms of profit. But there is little value in waiting for the business to cease operations to find out how successful it has been. The continuous life of the business is divided into equal periods of time for the purpose of calculating a profit or loss figure. These arbitrary periods are known as reporting periods and allow accountants to assume that business operations have been frozen momentarily so that a profit or loss figure can be determined. The length of a reporting period may be a week, a month, a quarter or a full year, but must not be any longer due to taxation requirements.

The **monetary unit principle** is used in accounting to measure and record financial events. The measurement unit used is the currency of the country in which the report is being prepared. Therefore, for an item to be stated in an accounting report, the event must be able to be expressed in monetary terms.

The **conservatism principle** is also known as **prudence**. Traditionally, accountants have shown a tendency to be cautious when preparing reports. Conservative attitudes meant that losses would be allowed for when expected to occur, while gains would only be recognised if certain to happen. However, the adoption of **relevance** as a modern concept within the SACs has weakened the influence of conservatism as a principle in accounting.

The **going concern principle** deems that a business will continue as a 'going concern' for an indefinite period. That is, the business is assumed to go on forever. By following this rule accountants can report long-term assets in a balance sheet (covered in chapter 2). Otherwise they would all have to be written off as expenses in their year of purchase. This also ties in with the historical cost principle because, if it was assumed that the firm's life was finished, all items would need to be shown at their current realisable values: that is, what they could be sold for. The going concern principle also allows accountants to cater for transactions that overlap over two consecutive years, as is the case with many credit transactions.

There are obvious links between some of the accounting principles described above and the qualitative characteristics of accounting as outlined in SAC2. The following summary highlights the links between the two:

RELEVANCE is supported by the ACCOUNTING ENTITY and REPORTING PERIOD principles.

COMPARABILITY is supported by the CONSISTENCY principle.

It is important to note at this stage that qualitative characteristics and accounting principles are not merely an introductory topic in this text. Both the characteristics and principles of accounting will be revisited when they are relevant to specific topics, and this will be highlighted, when appropriate, in subsequent chapters.

ISBN 978 1 4202 3058 1

› GLOSSARY OF TERMS

accounting entity principle all relevant items must be reported for a business entity, which therefore excludes personal transactions of the owner.

accounting standards a set of regulations that outline acceptable accounting practices and procedures.

assets resources controlled by a business entity that have future economic benefits.

comparability a quality of accounting that demands that financial reports are prepared in a consistent manner so that they may be compared from one reporting period to the next.

conservatism principle (or **prudence**) a cautious or prudent approach to accounting, with a tendency to stay on the 'safe side'.

consistency principle the requirement that consistent accounting methods be applied from one reporting period to the next so that valid comparisons can be made.

expenses decreases in economic benefits during a reporting period in the form of outflows or depletions of assets or increases in liabilities.

general purpose financial reports accounting reports prepared for a variety of users, some of whom are external to the business under examination.

going concern principle the assumption that a business will continue to operate forever into the future.

historical cost principle the original cost of an item at the time it was purchased.

liabilities a present obligation of an entity that requires an outflow of the entity's resources in the future.

monetary unit principle the measurement of financial events in monetary terms.

owner's equity the residual interest of an owner in a business entity, determined by deducting liabilities from assets.

relevance a quality of accounting that demands that all information that may influence the users of a report be disclosed so that decision-makers are fully informed.

reliability a quality of accounting that emphasises the need to be able to check accounting information against business documents.

reporting period principle a period of time over which financial events are recorded and reported.

revenues increases in economic benefits during a reporting period in the form of inflows of assets or decreases in liabilities that result in increases in equity, other than capital contributions by the owner.

statements of accounting concepts (SACs) a framework of accounting, including qualitative characteristics and definitions of the key elements of accounting.

understandability a quality of accounting that demands that accounting information is presented in a simplified, understandable fashion.

ISBN 978 1 4202 3058 1

Summary questions

1. Explain why businesses have a need for financial information.
2. **a** State five different users of accounting information.

   b For each of the users listed in part a, describe their main areas of interest in financial information relating to small businesses.
3. Name and describe the roles of the four types of accountants in society.
4. Of the four types of accountants stated in the previous question, which ones are likely to be used by small businesses? Explain your answer fully.
5. Make a list of the types of financial services provided by accountants to small business.
6. What is an accounting standard? What is the purpose of accounting standards?
7. What is a SAC? What is the role of the SACs?
8. What is the objective of general purpose financial reporting? Refer to the relevant SAC in your answer.
9. State, and describe, the four qualitative characteristics that financial information should possess in order to be valuable to the users of reports (as outlined in SAC2).
10. Write a brief definition for each of the following terms: 'assets', 'liabilities', 'owner's equity', 'revenues', 'expenses'.
11. State the accounting equation in two different forms.
12. Explain what is meant by the 'accounting entity principle'.
13. Justify why accountants follow the entity principle.
14. Lee Ting is the owner of a car detailing firm, a clothing business and a hardware shop. Explain how the application of the entity principle affects the accounting for Lee's businesses.
15. Explain what is meant by 'historical cost accounting'.
16. Sharon O'Neill bought a second-hand vehicle for her business at a cost of $18 000. However, one of Sharon's friends has told her that the model purchased is worth about $19 500. At what value should the vehicle be recorded in the firm's financial reports? Explain your answer fully.
17. What do accountants assume about the life of the business? Why is this done?
18. Explain the link between the going concern principle and the reporting period principle.
19. Why is consistency important to accounting? How does this principle relate to the SACs?
20. Describe the link that exists between the qualitative characteristic of **comparability** and the accounting principle of **consistency**.
21. What is meant by the term 'reliability'? State three business documents that may be used to satisfy the demands of **reliability**.
22. The qualitative characteristic of **relevance** may be supported by an accounting principle. State the accounting principle and explain this link fully.
23. The owner of a small business has stated that cents may be omitted from all balance sheets. State the qualitative characteristic that may support this statement and explain why the business owner may be correct.

ISBN 978 1 4202 3058 1

Practical exercises

[Exercise 1.1]

Melbourne Magazines publishes a range of magazines that are sold only to private subscribers. The business accepts prepaid subscriptions whereby customers can pay in advance for a one, two or three-year subscription. During 2015 the firm received a total of $180 000 for its three-year subscriptions covering the years 2016, 2017 and 2018.

How should the $180 000 be reported in the general purpose reports of Melbourne Magazines for the year 2015? Your answer should discuss whether or not the amount in question should be treated as a revenue item or a liability item. You should also make reference to the definitions of the key elements of accounting from SAC2 to justify your answer.

[Exercise 1.2]

In order to keep track of her business transactions, the proprietor of Superior Appliances borrows a computer from her sister on a regular basis. The system cost $3000 two years ago and has recently been valued at $1 800.

a How should the computer be treated in the books of Superior Appliances? Refer to the appropriate SAC definition to support your answer.

b Would your answer to part **a** change if the owner of Superior Appliances gave her sister some electrical goods from the business as payment for the use of the computer? Explain fully.

c Would your answer to part **a** change if the proprietor paid her sister $1 500 for the computer system? Should the computer be recognised as an asset of the business? At what value should the computer be valued: $3000, $1 800 or $1 500? Justify your answer.

[Exercise 1.3]

The proprietor of Sunshine Sports bought $200 worth of stationery during the current reporting period. On 30 June 2015 she found that there was an un-opened box of pens, worth $5, that had not been used during the period.

a Should the entire $200 be reported as an expense in the firm's reports? Refer to the qualitative characteristics of relevance and reliability in your answer.

b Would it make any difference to your answer in **a** above if the value of unused stationery was $150, rather than $5? Explain your answer fully.

[Exercise 1.4]

Kaylene Biffin, the owner of a small business that sells golf equipment, has prepared the following list of her assets in order to provide her accountant with her details at the end of a reporting period

Cash $12 000
Stock 42 000 units—counted at the end of the year
Delivery van $29 000—based on estimated market value

When provided with this information Kaylene's accountant advised her that she has not followed acceptable accounting principles. State, and explain, which accounting principle(s) have not been correctly followed.

[Exercise 1.5]

Alfie Gentile owns a menswear store and he rents his business premises from City Real Estate at a cost of $40 000 per annum. During recent negotiations the two firms have agreed on a one-off payment of $99 000 on 1 January 2015 for the use of the property

ISBN 978 1 4202 3058 1

during 2015, 2016 and 2017. Alfie believes that the entire $99 000 should be written off as an expense in 2015, as this represents the loss of economic resources for the year. However, a friend of the owner has suggested that this would distort the profits of the firm in the following two years. Discuss both arguments, with reference to SAC2 and any relevant qualitative characteristics or principles.

[Exercise 1.6]

Nick Zaita is the proprietor of Coburg Smallgoods. During the reporting period ending 31 December 2015, Nick purchased the following items: a computer costing $2 500, a printer for $450, a stapler for $10 and a metal ruler costing $4. He has estimated that all four items should have a useful life in the business of about three years. However, a friend of Nick's has told him that all four items are expenses to his business as they represent an economic sacrifice during 2015.

- **a** Explain the difference between an asset and an expense.
- **b** State one reason why all four items should be reported as assets as at 31 December 2015.
- **c** State one reason why some of the four items should be treated as expenses during 2015.
- **d** Explain how the quality characteristic of relevance may be applied to the situation being considered by Nick. Taking into account this characteristic, should any of the four items be treated as expenses for 2015? Explain your answer fully.

[Exercise 1.7]

For each of the following situations, refer to the qualitative characteristics of accounting and/or the accounting principle(s) that are relevant and how they should be applied to the given circumstances.

- **a** Jason Mastroianni is the owner of Brunswick Party Hire. On 10 June he bought 100 chairs costing a total of $3 000. On 15 June he bought an office desk for the family home at a cost of $1 000.
- **b** Classic Styles is a hairdressing salon owned and managed by Betty Semini. In 1990 the business premises were purchased for $320 000. Three independent valuers have inspected the property this year and have valued the property at $480 000, $490 000 and $510 000 respectively.
- **c** The proprietor of Pete's Pet Shop calculated the profit of his business in his first year by the cash method of accounting. On the advice of a friend who is an accounting student, Pete used the accrual method in the second year of business because it was more accurate. Having found the accrual method confusing, Pete reverted to the cash method in his third year of business to determine the profit or loss earned by the firm.
- **d** Marcia Kokinos is not an organised person and has not been able to keep accurate files of the business documents used by Marcia's Computer Shop. However, she is confident that she can remember the transactions for the last month and has prepared an income statement on the basis of her recollections. She is reasonably confident that her estimate of sales for the month is accurate.
- **e** Roger Van is the proprietor of Van's Steam Cleaning. The business has been struggling of late and Roger is not certain that he will continue in business next year. With this in mind he has prepared a balance sheet on the basis of what he expects to receive if he decides to sell the firm's assets.

ISBN 978 1 4202 3058 1

f Nancy Mifsud does not think it is necessary to prepare an income statement and balance sheet every year. She has been in business, operating under the name Moonee Ponds Camping Gear, for three years now and has just completed accounting reports for this three-year period to show a profit of $65 000.

INTERNET activity

The two main professional accounting bodies in Australia are CPA Australia and the Institute of Chartered Accountants in Australia (ICAA). Both of these organisations maintain comprehensive websites. Using the following internet addresses, try to locate information in response to the following questions:

www.cpaaustralia.com.au

www.charteredaccountants.com.au

a What are the requirements for membership of these two organisations?

b How many members does each organisation have?

c What services and/or information are available for students of accounting?

d Professional Development (or Professional Education) is important to accountants. Make a list of some of the 'hot topics' being discussed by accountants at the moment.

ISBN 978 1 4202 3058 1

Chapter 2

Balance sheets

OBJECTIVES

At the completion of this chapter, you should be able to:

- outline the purpose of a balance sheet
- state the accounting equation
- explain the concept of 'net worth'
- prepare a balance sheet for a small business in both T-form and narrative form
- prepare a classified balance sheet using appropriate headings
- calculate working capital and a working capital ratio
- show the two-fold effect of financial transactions on the balance sheet of a small business
- explain how revenues and expenses affect owner's equity in a balance sheet.

ISBN 978 1 4202 3058 1

2.1 Balance sheets

An accounting report prepared at the end of every reporting period is the **balance sheet**, which reports the financial status of a business at one particular point in time. A balance sheet has three main sections:

1. **Assets:** these are the resources controlled by an entity that have future economic benefits as a result of past transactions.
2. **Liabilities:** these are the present obligations of an entity that will result in an outflow of resources in the future.
3. **Owner's equity:** this is the residual interest in the assets of the entity after deduction of its liabilities. This is also referred to as the net worth of the business. The owner's equity will usually consist of the capital contributed by the owner, plus any profits earned by the firm that have not yet been withdrawn.

The accounting equation consists of the three areas outlined above and is the basis of all balance sheets. It states that:

Assets = Liabilities + Owner's equity

That is: A = L + OE

Or, to highlight the net worth of a business, it can be expressed as:

Owner's equity = Assets – Liabilities

That is: OE = A – L

A typical balance sheet prepared in T-form style for a small business operating as City Sports appears below.

Figure 2.1 Balance sheet: T-form presentation

City Sports: balance sheet as at 30 June 2015

Assets	*$*	*Liabilities*	*$*	*$*
Cash at bank	3 000	GST clearing	1 000	
Debtors control	15 000	Creditors	14 000	
Stock control	50 000	Loan (due 30/6/17)	30 000	45 000
Office equipment	14 000	*Owner's equity*		
Vehicles	68 000	Capital— Ebony Rea		105 000
Total assets	150 000	Total equities		150 000

The accounting equation in this balance sheet is:

Assets \$150 000 = Liabilities \$45 000 + Owner's equity \$105 000

Equities is the term used to describe anyone who has a legal claim on the assets of the business. Liabilities will include all external equities, as these are obligations to outsiders of the business. The internal equity is the owner's claim on the firm. This is the net worth of the business to the proprietor, Ebony Rea.

A T-form balance sheet can be redrafted into a narrative format. Whereas a T-form statement shows the basic accounting equation across the page, the narrative format is prepared in vertical form down the page. A narrative statement can be prepared in two different styles. The first of these shows the assets of the firm in the top half of the report, followed by liabilities and

ISBN 978 1 4202 3058 1

owner's equity in the bottom half. It shows the same information as the T-form statement but spreads it out down the page. This style of narrative report is demonstrated below.

Figure 2.2 Balance sheet: narrative presentation

City Sports: balance sheet as at 30 June 2015		
Assets	*$*	*$*
Cash at bank		3 000
Debtors control		15 000
Stock control		50 000
Office equipment		14 000
Vehicles		68 000
Total assets		$150 000
Liabilities		
GST clearing	1 000	
Creditors	14 000	
Loan (due 30/6/17)	30 000	45 000
Owner's equity		
Capital—Ebony Rea		105 000
Total equities		150 000

A second form of narrative report can be used to highlight the net worth of the business as the key figure of the report. Many company reports are prepared using this style of presentation and it has additional value when preparing a classified report (covered later in this chapter). This statement uses the accounting equation of OE = A – L. Using the same data for City Sports as shown in figure 2.2, a narrative report may be prepared as shown in figure 2.3.

Figure 2.3 Narrative form balance sheet highlighting owner's equity

City Sports: balance sheet as at 30 June 2015		
Owner's equity	*$*	*$*
Capital—Ebony Rea		105 000
Is represented by:		
Assets		
Cash at bank	3 000	
Debtors control	15 000	
Stock control	50 000	
Office equipment	14 000	
Vehicles	68 000	
Total assets		150 000
less liabilities		
GST clearing	1 000	
Creditors	14 000	
Loan (due 30/6/17)	30 000	45 000
Net assets		105 000

ISBN 978 1 4202 3058 1

In this narrative form report the owner's equity figure is shown as being equal to the **net assets** of the business. The value of net assets is derived by deducting the total amount owing to liabilities from the total of assets. Therefore the narrative form balance sheet shows exactly the same information as that shown in the previous two statements, with the only difference being the style of presentation.

2.2 Classification in the balance sheet

In order to provide more information about a business, the balance sheet can be classified to include groups of similar items. The assets are usually classified according to their liquidity; that is, how quickly they are expected to be turned into cash or used up. Liabilities are classified on the basis of their urgency of repayment. Typical headings used in such a system of classification are as follows:

Current assets: this heading includes economic resources controlled by the entity, which are normally expected or intended to be turned into cash or used up within the next 12 months. Current assets include cash on hand, cash at bank, short-term investments, the goods held for re-sale (known as stock or inventory), stocks of supplies (for example, stationery) and amounts owing by credit customers (usually referred to as debtors or accounts receivable).

Non-current assets: these are longer term assets. They are usually acquired with the intention of controlling them for a period of time greater than 12 months for the purpose of generating income for the business. Typical examples of non-current assets are computers, vehicles, machinery, furniture, equipment, property and long-term investments.

Current liabilities: this classification includes all obligations of economic sacrifices due for payment within the next 12 months. Current liabilities include such items as bank overdrafts, short-term loans and amounts owing to suppliers who have extended credit to the business (usually referred to as creditors or accounts payable).

Non-current liabilities: these are the longer term obligations of the business; they are also known as deferred liabilities. Debts for which the payment has been deferred over a period greater than 12 months are listed under this heading. Long-term loans such as mortgage loans are typical examples. It is important to note that, even though a loan may be taken out over ten years, the amount due within the next 12 months may still be listed under the heading of Current liabilities. The amount, which was expected to be repaid over the other nine years of the term, would then be shown as a non-current liability.

Using these headings as the basis for classifying assets and liabilities, the balance sheet pertaining to City Sports shown earlier in this chapter can be redrafted as shown in figure 2.4.

The previous statement can also be prepared using either of the narrative formats, as shown in figures 2.5 and 2.6.

The classified balance sheets shown on page 21 provide more information than the unclassified form. The longer term assets are grouped together, with the historical cost of these assets clearly stated. The liquid assets of the firm are clearly identified, as are the short-term obligations. These groupings can be used as analytical tools when examining a business. Such analysis is covered in depth later in this text.

ISBN 978 1 4202 3058 1

Figure 2.4 Classified balance sheet (T-form)

City Sports: balance sheet as at 30 June 2015

Current assets	$	$	*Current liabilities*	$	$
Cash at bank	3 000		GST clearing	1 000	
Debtors control	15 000		Creditors	14 000	
Stock control	50 000	68 000	Loan	15 000	30 000
			Non-current liabilities		
			Loan (due 30/6/17)*		15 000
Non-current assets					
Office equipment	14 000		Owner's equity		
Vehicles	68 000	82 000	Capital—Ebony Rea		105 000
Total assets		150 000			150 000

* For demonstration purposes the loan has been divided into two parts. As the loan is due over the next two years, it has been assumed that $15 000 is due within the next 12 months, with the other $15 000 due the following year.

Figure 2.5 Classified balance sheet (narrative format)

City Sports: balance sheet as at 30 June 2015

Current assets	$	$
Cash at bank	3 000	
Debtors control	15 000	
Stock control	50 000	68 000
Non-current assets		
Office equipment	14 000	
Vehicles	68 000	82 000
Total assets		150 000
Current liabilities		
GST clearing	1 000	
Creditors control	14 000	
Loan	15 000	30 000
Non-current liabilities		
Loan (due 30/6/17)*		15 000
Owner's equity		
Capital—Ebony Rea		105 000
		150 000

Figure 2.6 Classified balance sheet (narrative format highlighting owner's equity)

City Sports: balance sheet as at 30 June 2015

Owner's equity	$	$
Capital—Ebony Rea		105 000
Is represented by:		
Current assets		
Cash at bank	3 000	
Debtors control	15 000	
Stock control	50 000	68 000
less current liabilities		
GST clearing	1 000	
Creditors control	14 000	
Loan	15 000	30 000
Working capital*		38 000
Non-current assets		
Office equipment	14 000	
Vehicles	68 000	82 000
		120 000
less non-current liabilities		
Loan (due 30/6/17)		15 000
Net assets		105 000

* **Working capital** = current assets less current liabilities

ISBN 978 1 4202 3058 1

2.3 Classification of loans

The classification of loans in a balance sheet needs further explanation. It has already been demonstrated how a two-year loan may be reported as both a current and a non-current liability, with half of the loan being shown under each heading (refer to figure 2.4). However, this treatment of the liability will depend on the type of loan taken out by the business owner. In basic terms there are two ways a business may borrow money: interest-only loans and instalment loans.

Interest-only loans do not require the principal of the loan to be repaid until the loan period has expired. That is, only the interest due is paid to the lender each year until the loan period has expired. Consider the example of Nicky's Foods, which on 1 December 2015 borrowed $20 000 as an interest-only loan over five years at 10% per annum interest. Such a loan only requires the interest of $2 000 (10% of $20 000) to be paid each year. None of the original amount borrowed (the principal amount of $20 000) is required to be paid until the five years have passed (which will be 30 November 2020). This type of loan is advantageous to a business, as it gives the owner time to accumulate the amount borrowed before having to make the single repayment of the principal. However, it does require excellent planning skills, as the total amount borrowed has to be available on the day the loan period expires. Interest-only loans should be classified as non-current liabilities because they do not involve an obligation for payment within the next 12 months.

For Nicky's Foods, the $20 000 should be reported as a non-current liability for the first four years that the business has the loan. Assuming that the reporting period ends on 31 December each year, the loan should be reported in Nicky's Foods' reports under the non-current liability heading at the end of 2015, 2016, 2017 and 2018. When the balance sheet is prepared on 31 December 2019, however, the loan will be due in only 11 months (on 30 November 2020) and therefore should be reported as a current liability. Whenever classifying an interest-only loan in a balance sheet, always be careful to check the date when the principal has to be repaid.

Instalment loans, as the name suggests, require the borrower to make scheduled repayments throughout the life of the loan. These instalments are usually stated as a dollar amount per month or per quarter. This allows a business owner to avoid having to make one lump sum payment, as is done under interest-only loans. However, instalment loans must be repaid constantly throughout the loan period and therefore may put a business under steady pressure for several reporting periods. Owners must ensure that cash will be available each month to meet the repayments.

To demonstrate the classification of an instalment loan, consider the example of Essendon Books, which on 31 December 2015 borrowed $40 000 from the bank over five years.

Essendon Books: balance sheet (extract) as at 31 December 2015

Current liabilities	*$*	*$*
Bank loan	8 000	
Non-current liabilities		
Bank loan	32 000	40 000

Assuming that the loan involves equal repayments over the five years, one-fifth of the $40 000 is the obligation faced by this business in the next 12 months. Therefore, $8 000 has been

ISBN 978 1 4202 3058 1

reported as a current liability with the other $32 000 as a non-current liability. One year later the situation would be reported as follows:

Essendon Books: balance sheet (extract) as at 31 December 2016

Current liabilities	$	$
Bank loan	8 000	
Non-current liabilities		
Bank loan	24 000	32 000

As a full year has now passed, one-fifth of the loan would have been repaid and therefore the business would now owe $32 000 in total to the bank. Once again, the owner has an obligation due within the next 12 months (another $8 000) and this should be reported as a current liability. The non-current liability will be reduced by $8 000 each year until only $8 000 is left unpaid. When this occurs the remaining amount of $8 000 would be reported as a current liability.

Note: sometimes the examiners in VCE Accounting will state what the actual monthly repayment of a loan is in dollar terms. In such a case, simply multiply the monthly repayment by 12 to determine the amount to be reported as a current liability. The remainder of the loan can then be listed under the classification of non-current liabilities.

Always keep in mind that the loan calculations shown for Nicky's Foods and Essendon Book Store only relate to the repayment of the principal amount borrowed. The payment of interest on loans is treated separately because interest payments represent the cost of borrowing money. Interest is the sacrifice made by the owner in borrowing cash and therefore should be reported as an expense item in each reporting period that the loan exists.

2.4 Financial transactions and balance sheets

As has already been stated, the balance sheet reports values of assets, liabilities and owner's equity at a given date. These three main groups make up the basic accounting equation. In addition to these three groups, there are two other categories of items affected by financial transactions. These are:

1. **Revenues:** these are increases in economic benefits in the form of inflows of assets or reductions in liabilities that result in an increase in equity, other than contributions by the owner (that is, capital). Such benefits usually arise through the provision of services or the sale of goods. Examples of revenue include charter fees for a bus company, ticket sales for a cinema, cash or credit sales of stock by a trading firm and interest on investments.
2. **Expenses:** these are decreases in economic benefits in the form of reductions in assets or increases in liabilities that result in a decrease in equity, other than distributions of equity (that is, owner's drawings of capital). Expenses include such items as wages, advertising, rent, insurance, depreciation of non-current assets and the cost price of stock sold.

Under the accrual method of determining profit, revenue earned less expenses incurred equals the net profit earned for a period. All of the revenue and expense items relating to a particular reporting period are shown in an accounting report known as an income statement. The net profit or loss is then added to or subtracted from the owner's equity in the balance sheet. Income statements will be covered in detail in chapter 11, but at this stage it is important to realise that revenues cause an increase in owner's equity, while expenses cause a decrease in owner's equity.

ISBN 978 1 4202 3058 1

All financial transactions entered into by a business will affect at least two items in the firm's balance sheet. This two-fold effect of transactions is the basis of double entry accounting, which is the underlying theme of this text.

The examples in figures 2.7 and 2.8 have been created to demonstrate how individual transactions have a two-fold effect on the balance sheet of a small business. In addition to the two-fold effect on the balance sheet, transactions that attract the goods and services tax (GST) will also have to be reported in the balance sheet of the business. When GST is collected by a business, it increases the liability owing to the government. If a business pays GST on items purchased, this will have the effect of decreasing the **GST liability**, or may even create an asset (if the business is owed a **GST refund**). Further details regarding the GST will be provided in chapter 8.

Regardless of the nature of business transactions, there will always be two items affected in the firm's balance sheet. Item number five in figure 2.7 shows what happens to the report when goods are sold for cash. One asset has increased (bank by $2 200) while a second asset has decreased (stock by $1 200). Therefore, the net effect of this transaction was an increase in total assets of $1 000. On the other side of the statement, the GST liability increased by $200 as the business collected $200 on its sale on behalf of the government. The owner's equity has also increased by $800, as this is the actual profit made on the sale of the goods. This figure represents the net gain made on the sale. As the stock sold cost $1 200 and was sold for $2 000, the owner has experienced an increase in net worth of $800. In item six, which involved the payment of an expense, both the bank account and the owner's equity experienced a decrease of $500. Always keep in mind that revenue items will lead to an increase in owner's equity, while expense items will decrease it.

A second way to show the effect of transactions on the balance sheet is to use a worksheet. This worksheet is based on the accounting equation, with assets on the left side and liabilities and owner's equity on the right side. The worksheet in figure 2.8 includes the transactions

Figure 2.7 **Two-fold effect of transactions on the balance sheet**

Transaction	First effect	Second effect
1 Owner deposited $80 000 to commence business	Increase cash at bank (asset) by $80 000	Increase capital (owner's equity) by $80 000
2 Took out an interest-only loan of $20 000	Increase cash at bank (asset) by $20 000	Increase loan (liability) by $20 000
3 Bought shop fittings for cash $10 000 plus GST of $1 000	Increase shop fittings (asset) by $10 000 Decrease GST liability by $1 000	Decrease cash at bank (asset) by $11 000
4 Purchased stock on credit for $15 000, plus GST of $1 500	Increase stock (asset) by $15 000 Decrease GST liability by $1 500	Increase creditors (liability) by $16 500
5 Sold goods for $2 000 cash, plus GST of $200 (cost price of goods sold $1 200)	Increase cash at bank (asset) by $2 200 and decrease stock (asset) by $1 200 Total overall increase in assets $1 000	Increase GST liability by $200 and increase capital (owner's equity) by $800 Revenue $2 000 – Expense $1 200 = $800 profit Total increase $1 000
6 Paid wages for the week $500	Decrease cash at bank (asset) by $500	Decrease capital (owner's equity) by $500, as wages is an expense

ISBN 978 1 4202 3058 1

Figure 2.8 **Worksheet approach: transactions and the balance sheet**

Transactions	Assets			Liabilities			Owner's equity
	Cash at bank $	Stock control $	Shop fittings $	GST clearing $	Creditors control $	Loan $	Capital $
1 Owner deposited $80 000 cash	+80 000						+80 000
2 Took out a loan of $20 000	+20 000					+20 000	
3 Bought shop fittings for $10 000 cash plus GST of $1 000	–11 000		+10 000	–1 000			
4 Purchased stock on credit $15 000 plus $1 500 GST		+15 000		–1 500	+16 500		
5 Sold goods for cash $2 000 plus GST of $200 (cost of sale $1 200)	+2 200	–1 200		+200			+2 000 –1 200 = +800
6 Paid wages $500	–500						–500
Overall result	90 700	13 800	10 000	(2 300)	16 500	20 000	80 300

shown in figure 2.7, but this time each item in the balance sheet is changed as the transactions are considered.

The final results in figure 2.8 may be reported in a formal balance sheet. The results from the six examples of transactions would be reported as follows:

Balance sheet

Assets	*$*	*Liabilities*	*$*	*$*
Cash at bank	90 700	Creditors control	16 500	
GST clearing	2 300	Loan from bank	20 000	36 500
Stock control	13 800			
Shop fittings	10 000	Owner's equity		
		Capital		80 300
	116 800			116 800

Note that the balance sheet still balances, using the accounting equation of Assets = liabilities plus owner's equity. In relation to the GST, note that the balance of $2 300 has been reported as an asset (GST refund). This is because at this point in time the business has paid $2 300 more in GST than it has collected. Some accounting software packages report such an item as a negative amount in the current liabilities section of a balance sheet. However, as this figure currently represents a future benefit to the business, it should be reported as a current asset.

Although this example clearly demonstrates how transactions have a two-fold effect on this accounting report, it is important to appreciate that the method shown above is impractical for real businesses. Drawing up tables such as the one shown in figure 2.8 is not a practical method of recording transactions. Subsequent chapters in this text will demonstrate some of the accounting procedures used in real businesses. However, it is important to realise at this stage that such procedures are in fact based on the principle that every transaction will have a two-fold effect on the balance sheet, no matter how large or small the business.

A second approach to the two-fold effect of transactions is the preparation of a balance sheet after every transaction. Once again, this technique is not the way accountants record transactions, but it is a useful way to learn about how transactions affect a firm's accounting equation. The following transactions relate to the business of Walker's Furniture. After each transaction a new balance sheet has been prepared, showing the financial situation of the firm at that time.

July 1 J. Walker deposited $200 000 to commence business

Walker's Furniture: balance sheet as at 1 July 2015

Assets	$	*Owner's equity*	$
Cash at bank	200 000	Capital—J. Walker	200 000
	200 000		200 000

This transaction has resulted in an increase in bank (asset) of $200 000 and an increase in capital (owner's equity) of $200 000.

July 2 Purchased stock for the business for cash at a cost of $30 000, plus GST of $3 000

Walker's Furniture: balance sheet as at 2 July 2015

Assets	$	*Owner's equity*	$
Cash at bank	167 000	Capital—J. Walker	200 000
GST clearing	3 000		
Stock control	30 000		
	200 000		200 000

Changes: Note that bank (asset) has decreased by $33 000, while stock (asset) has increased by $30 000 and the business is owed $3 000 for the balance of their GST account.

July 3 Purchased a second-hand vehicle for the business at a cost of $50 000, paying $10 000 cash with the balance payable to Auto Sales within 60 days

Walker's Furniture: balance sheet as at 3 July 2015

Assets	$	*Liabilities*	$
Cash at bank	157 000	Sundry creditor—Auto Sales	40 000
GST clearing	3 000		
Stock control	30 000	*Owner's equity*	
Vehicle	50 000	Capital—J. Walker	200 000
	240 000		240 000

Changes: This transaction has caused three changes to the balance sheet. Bank (asset) has decreased by $10 000, vehicle (asset) has increased by $50 000 and Auto Sales (liability) has increased by $40 000.

ISBN 978 1 4202 3058 1

July 4 Walker paid for advertising $3 000 and insurance $2 000 (plus GST of $300 and $200 respectively)

Walker's Furniture: balance sheet as at 4 July 2015

Assets	*$*	*Liabilities*	*$*
Cash at bank	151 500	Sundry creditor—Auto Sales	40 000
GST clearing	3 500		
Stock control	30 000	*Owner's equity*	
Vehicle	50 000	Capital—J. Walker	195 000
	235 000		235 000

Changes: As advertising and insurance are expense items and attract the GST, bank (asset) has decreased by $5 500, GST paid has gone up by $500 and capital (owner's equity) has decreased by $5 000.

July 5 Sold goods that cost $4 000 for $10 000 cash, plus GST of $1 000

Walker's Furniture: balance sheet as at 5 July 2015

Assets	*$*	*Liabilities*	*$*
Cash at bank	162 500	Sundry creditor—Auto Sales	40 000
GST clearing	2 500		
Stock control	26 000	*Owner's equity*	
Vehicle	50 000	Capital—J. Walker	201 000
	241 000		241 000

Changes: As $4 000 worth of goods were sold, stock (asset) has decreased by $4 000. As this item also involves the receipt of cash, bank (asset) has increased by $11 000 (including the GST). Capital—Walker has increased by $6 000, as this represents the profit made on the sale ($10 000 less $4 000 = $6 000).

Note also the change in the asset GST refund. The business had previously paid GST of $3 500 but has now collected GST of $1 000 on its sales. Therefore the GST collected of $1 000 has been deducted from the GST paid previously, meaning that at this time the government would owe this business entity a GST refund of $2 500.

July 6 Sold goods on credit for $10 000, plus GST of $1 000 (cost price of stock sold $5 000)

Walker's Furniture: balance sheet as at 6 July 2015

Assets	*$*	*Liabilities*	*$*
Cash at bank	162 500	Sundry creditor—Auto Sales	40 000
GST clearing	1 500		
Debtors control	11 000		
Stock control	21 000	*Owner's equity*	
Vehicle	50 000	Capital—J. Walker	206 000
	246 000		246 000

Changes: Charging a customer for a credit sale still equates to revenue earned. This transaction is similar to the previous one except that, instead of bank increasing, it results in the creation of a debtor. Therefore debtors (asset) have increased by $15 000 (sale of $10 000 plus GST of $1 000), the GST refund has been further reduced by $1 000, stock (asset) has decreased by $5 000 and the owner's equity has increased by $5 000 ($10 000 less $5 000 = $5 000 profit).

July 7 Repaid Auto Sales $15 000 of amount owing

Walker's Furniture: balance sheet as at 7 July 2015

Assets	$	*Liabilities*	$
Cash at bank	147 500	Sundry creditor—Auto Sales	25 000
GST clearing	1 500		
Debtors control	11 000		
Stock control	21 000	*Owner's equity*	
Vehicle	50 000	Capital—J. Walker	206 000
	231 000		231 000

Changes: A payment to a liability causes a decrease in bank (asset) of $15 000 and a corresponding decrease in the sundry creditor named Auto Sales (liability) of $15 000.

In summary, every financial transaction will affect the balance sheet of a business in at least two ways. Revenue earned causes an increase in the owner's claim on the firm, while expenses incurred will bring about a decrease in owner's equity. Regardless of the nature of the transaction, the accounting equation must always hold true: that is, assets must always equal liabilities plus owner's equity.

› GLOSSARY OF TERMS

balance sheet a general purpose accounting report that states an entity's assets, liabilities and owner's equity at a particular point in time.

current assets economic resources that are normally expected or intended to be turned into cash or used up within the next 12 months.

current liabilities economic obligations of the business entity due for repayment within the next 12 months.

GST liability an obligation of a business to the taxation office because the business has collected (or has charged) more GST than it has paid to its suppliers.

GST refund an amount owing to a business by the taxation office because the business has paid (or been charged) more GST than it has collected from its customers.

instalment loan a type of finance that requires scheduled repayments throughout the life of the loan. That is, both principal and interest are paid off through regular periodical payments.

interest-only loan a type of loan that only requires payment of interest during the life of the loan, with the amount borrowed being repaid in one lump sum when the life of the loan has expired.

non-current assets economic resources that are normally expected or intended to be used within the business for a period of time greater than 12 months.

non-current liabilities obligations of the business entity due for repayment over a period of time greater than 12 months.

working capital current assets minus current liabilities.

ISBN 978 1 4202 3058 1

Summary questions

1. Describe the purpose of preparing a balance sheet for a small business.
2. State the accounting equation in two different forms.
3. Define the terms ‘assets’, ‘liabilities’ and ‘owner’s equity’.
4. Explain what is meant by the term ‘net worth’.
5. State the two components of owner’s equity.
6. Describe the differences between a T-form balance sheet and a narrative form balance sheet.
7. Distinguish between the following sets of terms:
   - **a** current assets/non-current assets
   - **b** current liabilities/non-current liabilities.
8. State two examples of items for each of the classifications listed in the previous question.
9. Explain how a classified balance sheet is more informative to a business owner.
10. Explain why stock should be reported as a current asset for a trading business.
11. Explain the difference between an instalment loan and an interest-only loan.
12. State one advantage and one disadvantage of instalment loans and interest-only loans.
13. Explain how revenue and expense items affect the balance sheet of a business.
14. A business has collected GST of $1 200 on its cash sales and has paid $400 GST to its suppliers. Explain how GST should be reported in this firm’s balance sheet.
15. GST may be reported in two different ways in a balance sheet. Describe these two possibilities, with examples as part of your answer.

Practical exercises

[Exercise 2.1] The following items relate to Broadway Toys & Games. For each of the items listed state whether they would appear in a balance sheet (under the headings of Current assets, Non-current assets, Current liabilities, Non-current liabilities, Owner’s equity) or whether they are irrelevant.

- **a** office furniture
- **b** cash on hand
- **c** bank overdraft
- **d** amounts owing by credit customers
- **e** office equipment
- **f** stocks of toys
- **g** GST refund due from the Taxation Office

ISBN 978 1 4202 3058 1

h land and buildings
i mortgage loan
j office stationery on hand
k owner's personal vehicle
l two-year term deposit made in the name of the business
m three-year loan taken out by the owner's husband
n amount invested by the owner to commence business
o amounts owing to suppliers of toys and games
p GST owing to the taxation office.

[Exercise 2.2]

The owner of Central Office Supplies has supplied the following information concerning his business as at 30 September 2015:

> Cash on hand $200, Stock $26 000, Cash at bank $3 200, Amounts owing by credit customers (debtors) $4 400, Vehicle $18 000, Amounts owing to suppliers (creditors) $300, GST liability $100, Loan from National Australia Bank (due 31 August 2016) $12 000.

a Prepare a classified balance sheet as at 30 September 2015.
b State the accounting equation of the firm as at 30 September 2015.

[Exercise 2.3]

The following information has been supplied by Alan Withers, the owner of Al's Appliances, as at 31 August 2015:

> Cash on hand $500, Bank overdraft $1 000, Business premises $120 000, Creditor—Wholesale Electrical $6 500, Stock of goods $29 700, Debtor—Seaview Primary School $280, Office furniture and fittings $3 200, Vehicles—business $18 000 and private $28 000, Stock of spare parts $1 800, Mortgage loan (due 2027) $80 000, Personal home loan $34 000, Debtor—Spotswood Social Club $1 200, Loan for business vehicle $4 000 (repayable over next two years), GST liability $2 400.

a Using the relevant information from the items listed above, prepare a classified balance sheet for Al's Appliances as at 31 August 2015.
b Explain your treatment of the following items:
  i Vehicle—private
  ii Personal home loan.

  Refer to the relevant qualitative characteristic and/or accounting principle in your answer.
c State the accounting equation in the balance sheet in part **a**, showing clearly the net worth of the business to the owner.

ISBN 978 1 4202 3058 1

[Exercise 2.4]

The following financial items relate to Heagney's Car Yard, a business that sells quality cars.

Cleaning equipment $5800, Cash at bank $1000, Office furniture $1800, Starting capital contributed by Kath Heagney $240000, Stock of advertising pamphlets $350, Sundry Creditor—Deluxe Car Auctions $29000, Office equipment $2900, Stock $582000, Debtors $9500, Loan from National Australia Bank (due 15 July 2016) $5000, Land and buildings $95000, Stock of cleaning materials $860, Mortgage loan on premises $75000 (repayable $600 per month), GST paid $240, GST collected $5440.

ADDITIONAL INFORMATION:

1. The owner has stated that she has earned a profit in the two years the business has been operating and these have been retained within the business. The actual amount of these profits is not known.
2. A friend of the proprietor recently offered her $3500 for the firm's office equipment.
3. The owner is thinking of buying a computer system for the business during October 2015 for about $2000.

a Prepare a classified balance sheet for Heagney's Car Yard as at 30 September 2015.

b Explain your treatment of each of the three numbered items shown as additional information above. Refer to the qualitative characteristics or any relevant accounting principles.

[Exercise 2.5]

Jacky's Video Cabinets is a small business that was established by Jacky Hua on 1 March 2015. During the first week Hua had the following business transactions:

Mar 1	The proprietor deposited $35000 cash to start business
2	Bought an office desk for $1800 cash, plus GST of $180
3	Purchased stock for $10000 cash, plus GST of $1000
4	Bought an office computer for $5000 on credit from City Computers (plus GST of $500)
5	Sold goods that had cost $2500 for $4500 cash, plus GST of $450
6	Paid for advertising $500, plus GST of $50

Prepare a table to show the two-fold effect of each of these six transactions listed. (Hint: use the format of the table shown in figure 2.7.)

ISBN 978 1 4202 3058 1

[Exercise 2.6]

The owner of Prestige Paints has provided the following list of transactions in relation to her business:

April	1	E. Johnson (owner) banked $58 000 to commence a business account
	2	Bought goods to sell in the shop for $12 000 cash, plus GST of $1 200
	3	Sold stock for $3000 cash, plus GST of $300 (cost price $1 500)
	4	Paid rent $500, plus GST of $50
	5	Purchased stock on credit for $8 000, plus GST of $800
	6	Sold stock for $5 000 cash, plus GST of $500 (cost of sale $2 000)
	7	Paid creditor $2 000 of amount owing
	8	Borrowed $5 000 from EZ Finance
	9	Sold goods for cash $14 000, plus GST of $1 400 (cost of sales $6 500)

a Prepare a worksheet to show the two-fold effect of these transactions. Follow the format shown in figure 2.8 and use the following headings:

Assets: Cash at bank, Stock
Liabilities: GST, Creditor, Loan
Owner's equity: Capital

b Prepare a balance sheet as at 9 April 2015, taking into account all these transactions.

[Exercise 2.7]

The following information comes from the books of Dobson's Locks:

May	1	The owner, Alice Dobson, contributed cash of $35 000, stock of $15 000 and a vehicle valued at $25 000 to the business
	2	Sold stock for cash $9 000, plus GST of $900 (cost price $4 000)
	3	Bought second-hand shop fittings for $14 000, paying $4 000 deposit with the balance due in 30 days to Colin Carpenter, a sundry creditor
	4	Sold goods for cash $3 000, plus GST of $300 (cost price $1 200)
	5	Sold goods on credit to S. Catania for $2 000, plus GST of $200 (cost price $800)
	6	Paid wages for week $500
	7	Purchased more stock on credit from Wholesale Locks $8 000, plus GST of $800
	8	The owner withdrew $1 000 from the business for personal use
	9	Paid advertising of $100, plus GST of $10
	10	Received cash from S. Catania $1 200

ISBN 978 1 4202 3058 1

a Prepare a worksheet to show the two-fold effect of the listed transactions for the period 1–10 May. Follow the format shown in figure 2.8 and use the following headings:

Assets: Cash at bank, Stock, Debtor—Catania, Vehicle, Shop fittings
Liabilities: GST, Creditor—Colin Carpenter, Creditor—Wholesale Locks
Owner's equity: Capital

b Prepare a balance sheet as at 10 May 2015.

[Exercise 2.8]

The following transactions relate to Preston Photographic Supplies. After each transaction, prepare a new balance sheet for the business and state the accounting equation as at that date.

April 1	Richard James (proprietor) deposited $10 000 cash to commence business
2	Bought stock costing $8 000, plus 10% GST, for cash
3	Purchased office furniture on credit from Modern Furniture at a cost of $2 000, plus GST of $200
4	James decided to contribute a personal computer to the business. It was valued at $1 500
5	Borrowed $5 000 over three years from the National Australia Bank
6	Repaid Modern Furniture $500
7	Paid wages to the assistant of $400
8	Sold goods which had cost $1 500 for $3 000 cash, plus GST of $300

[Exercise 2.9]

Emily Morrison is the owner of Kennels & Cages, a small business that specialises in homes for pets. The following is a summary of the financial transactions that occurred in her first few days of business. After each of the following transactions prepare a new balance sheet for the business.

May 1	Emily contributed $12 000 cash and $3 000 worth of equipment to start her business
2	Paid first week's rent of business premises $600, plus $60 GST
3	Purchased stock of kennels for $3 600 cash, plus GST of $360
4	Purchased stock of cages for $4 400 on credit, plus GST of $440
5	Sold a kennel for $1 500 cash, plus GST $150 (cost price $700)
6	Paid for advertising $300, plus GST of $30
7	Bought a vehicle for $14 000 plus $1400 GST, paying $4 000 cash, with the balance funded by a loan from CAG Finance Co.
8	Emily withdrew $500 for personal use
9	Sold a kennel for $1 800, plus $180 GST, on credit (cost price $800)
10	Paid creditors $1 000

ISBN 978 1 4202 3058 1

[Exercise 2.10] The following balance sheet and financial transactions relate to Tran's Trailers. It should be noted that the business has an overdraft facility with the local bank.

Tran's Trailers: balance sheet as at 31 July 2015

Assets	$	*Liabilities*	$	$
		GST clearing	1 000	
Cash at bank	1 100	Creditor—Link Engineering	2 000	
Debtors control	800	Creditor—City Stationers	400	
Stock control	22 500	Loan—EZ Finance	8 000	11 400
Office equipment	4 000			
		Owner's equity		
		Capital—P. Tran		17 000
	28 400			28 400

During the month of August 2015 the following transactions occurred:

- payments to creditors were $400 to City Stationers and $500 to Link Engineering
- two new trailers were purchased on credit from Link Engineering at a cost of $1 200 each (plus 10% GST)—these were added to the firm's stock
- debtors paid the business $500
- a new fax machine was purchased for the office for $900 cash, plus GST of $90
- sales earned for the month totalled $4 000, plus GST of $400 consisting of $3 300 received in cash and $1 100 to be received during September (the cost of sales for the month totalled $1 800)
- expenses paid during August were wages $2 000, advertising $500 and rent $4 600 (GST paid $510)
- the owner withdrew $800 from the business for personal use
- $200 was paid off the loan from EZ Finance.

Prepare a balance sheet as at 31 August 2015 to show the financial position at that date.

ISBN 978 1 4202 3058 1

CASE STUDY

ROB ARENA is the owner of a small business trading as Arena Art Supplies. Arena studied Accounting at secondary school, but his knowledge is a little rusty these days. He has prepared a balance sheet for his business but has a few queries for your consideration. The following statement was prepared by Arena:

Arena Art Supplies: balance sheet as at 31 December 2015

Assets	$	*Liabilities*	$	$
Cash at bank	2 420	Bank overdraft	5 000	
Debtors control	5 460	Creditors control	6 000	
Stock control	42 000	GST clearing	5 260	16 260
Computer	3 000	*Owner's equity*		
Vehicle	36 000	Capital—Arena		72 620
	88 880			88 880

ADDITIONAL INFORMATION:

- The last bank statement received by Arena on 31 December 2015 showed a balance of $2 420 in the bank. However, Arena expects to run low on cash in the next couple of months and has therefore arranged an overdraft limit of $5 000 with the bank. He has therefore included this as a liability in his report.
- The stock on hand cost the business $21 000, but Arena always doubles the cost price to determine the selling price of inventory. He has therefore shown stock in the balance sheet at the value he expects to receive when it is sold.
- The computer is located at Arena's's private home. It was actually purchased by his wife, but she allows Arena to use it to do the books of the business. She bought the computer for $3 000 one year ago.
- The vehicle is used in the business to transport goods. It was purchased six months ago for $31 000, but a close friend of Arena's, who works in the car trade, has declared 'You got it for a steal. That car normally sells for $36 000!' Arena has acknowledged that his friend knows about cars and has accepted his valuation.

a Make a list of any qualitative characteristics of accounting or any accounting principles that may have been breached in the preparation of the above report. For each breach you have identified, explain your answer fully.

b Redraft the balance sheet in line with generally accepted accounting qualities and principles.

c State the accounting equation that truly represents the financial position of Arena's business.

ISBN 978 1 4202 3058 1

INTERNET activity

Visit at least three of the following websites, which relate to public companies in the retailing sector. Your task will be to locate the balance sheet for each firm and extract the information detailed below.

David Jones Ltd	**www.davidjones.com.au**
Harvey Norman Ltd	**www.harveynorman.com.au**
JB Hi-Fi	**www.jbhifi.com.au**
Woolworths Ltd	**www.woolworths.com.au**

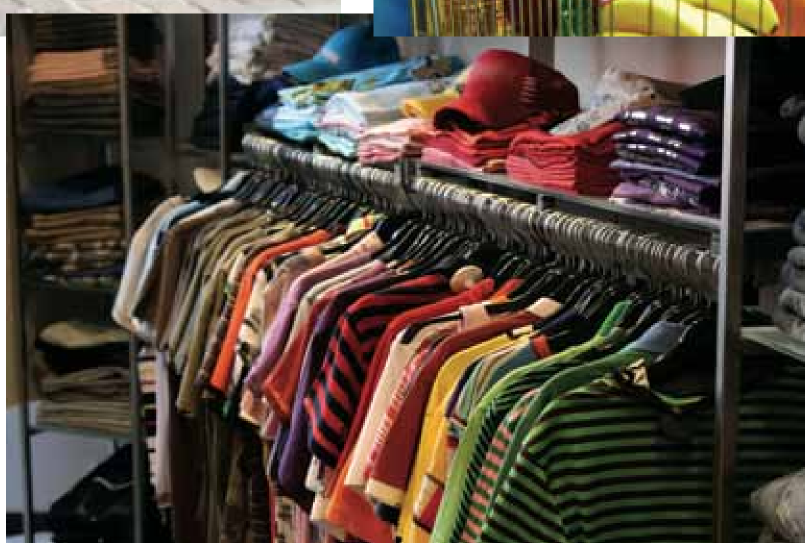
a State the name of each company.

b State the total assets figure from each company's balance sheet.

c State the values shown for current assets and current liabilities for each company.

d List your companies in order, according to the value of their total assets.

e Comment briefly on your findings.



ISBN 978 1 4202 3058 1

Chapter 3

Analysing and designing accounting systems

OBJECTIVES

At the completion of this chapter, you should be able to:

- outline the basic processes in an accounting system
- identify various business documents
- describe the role of a range of business documents
- distinguish between the procedures involved in cash and credit transactions
- describe the requirements of documents in relation to GST transactions
- identify information flows that occur in a small business
- identify the key segments of a double entry accounting system
- explain the role of the key segments in an accounting system
- prepare a flowchart of a typical double entry accounting system
- describe a typical computerised accounting system such as *Mind Your Own Business* (*MYOB*)® or *Quickbooks*®
- explain the advantages and disadvantages of computerised systems.

ISBN 978 1 4202 3058 1

3.1 The basic accounting process

In order to design any accounting system, the purpose of the system must first be clearly defined. If the aims of the process have not been established it is highly unlikely that the end result will be beneficial to the user. An accounting system is usually expected to generate particular financial information about a business. This information is generally conveyed in accounting reports such as income statements and balance sheets. Such information has its origins in business documents (for example, cheques and receipts) where the raw data is created. The basic role of the accounting system is to take this raw data, record it in appropriate records and summarise the results in well-designed reports. This process is shown in figure 3.1 below:

Figure 3.1 The accounting process

Collection of raw data → Recording of raw data in financial records → Reporting of results

The success of any accounting system will therefore depend on the design of both the accounting records and the business documents used by the firm. As these documents are the starting point of the accounting process, it must be ensured that they will contain all the required details of the firm's financial transactions. It is common practice to produce copies of all business documents so that a permanent record of all events is created. In larger firms multiple copies of business documents are often made, as there are many different users of the same accounting data. For example, the original document may be issued to the customer. In a series of copies, the white one may go to the general accounting department within the firm. A blue copy may be used by the credit department to update credit accounts. Finally, where stock is involved, a green copy may be used for inventory purposes. Such a colour-coded approach is taken in response to the particular needs of the business. Each department has a specific need for the details of a transaction and the colours make it easy to identify where the document is to be used. A small business, on the other hand, would have no need for such a system and would therefore adopt a simpler model.

3.2 The GST and business documents

The goods and services tax (GST) was introduced by the Federal Government in July 2000 as part of a general taxation reform. This tax has now become part of our everyday life, and the 10 per cent tax is applied to most products and services. (Fresh food is one of the few exceptions to this rule.) Businesses are required to register with the taxation office through the use of an Australian business number (ABN). This number is then used as a reference point in tracking GST transactions and it should appear on all business documents. Since the introduction of the GST, the taxation office has always been helpful in providing advice to small business owners in relation to the creation of business documents. This advice is provided to ensure that all requirements of the GST legislation are met. The GST legislation has also necessitated the creation of a document known as a **tax invoice**. A tax invoice is issued to a customer when goods or services are provided. It should contain several key pieces of information, including:

- the name of the business providing the goods or services
- the ABN of this business

ISBN 978 1 4202 3058 1

- the words 'Tax invoice', shown prominently near the top of the document
- a pre-printed document number (to be used as a reference number)
- the date of the transaction, on the top right-hand side
- a description of the goods or services provided
- the purchaser's name, together with their address or ABN, if the transaction was for $1 000 or more
- the GST-exclusive price, the GST amount and the GST-inclusive price for each item, together with totals for these, presented vertically on the right-hand side at the bottom of the tax invoice.

A typical tax invoice, designed to meet the criteria listed above, has been provided below.

Figure 3.2 A typical tax invoice

SANTO'S SPORTS STORE
SHOP 12 BARKLY SQUARE
COBURG 3056

ABN 11 122 233 344
TAX INVOICE 1321
DATE: 3 JAN 2015

TO: BRUNSWICK PRIMARY SCHOOL
12 SYDNEY ROAD
BRUNSWICK 3056

TERMS: 30 DAYS

Description	Qty	Unit price	Subtotal	GST	Total
Junior footballs	10	$30.00	$300.00	$30.00	$330.00
Indoor soccer balls	20	$20.00	$400.00	$40.00	$440.00
Totals			$700.00	$70.00	$770.00

Total (excluding GST)	$700.00
Total GST payable	$70.00
Total amount payable (including GST)	$770.00

SANTO'S SPORTS—SPECIALISTS IN SPORTING SUPPLIES FOR SCHOOLS

The document in figure 3.2 satisfies the demands of the taxation office and also provides the customer with all details required in relation to their business transaction. Although an **invoice** is normally used to verify a credit transaction, some businesses modify their tax invoices slightly so that they can be used as evidence of a cash sale. To do this, the words '**Cash receipt**' can simply be printed at the top of the document next to 'Tax invoice'. The only other modification required is to remove the credit terms from the document, as credit is not being extended. This complies with the requirements of the taxation office and will still provide the information required by a business owner.

Many small business owners are not in a position to provide credit and can only make cash sales. These businesses may therefore not use a formal tax invoice as shown above. They may simply issue a cash register generated receipt at the time of sale. However, these businesses also have an obligation to keep track of all GST collected and this should be stated on cash receipts issued to customers.

Figure 3.3 is an example of a cash receipt that complies with taxation office requirements.

ISBN 978 1 4202 3058 1

Figure 3.3 Cash register receipt showing GST charged

SALLY'S STATIONERY	
ABN 11 212 454 777	
Date: 12/2/2015	
TAX INVOICE	
1 box blue pens	$5.50
1 box blue pens	$5.50
1 box red pens	$5.50
1 pkt printer paper	$3.30
1 pkt staples	$2.20
Total payable	$22.00*
Cash received	$50.00
Change	$28.00
*Total includes GST of $2.00	
Received with thanks - please call again	

It should be noted that, despite the fact that the words 'Tax invoice' are on this document, this is not a credit transaction. It is simply evidence of a receipt of cash, with the receipt coming from the cash register of the business. It is because of the requirements of the GST that the words 'Tax invoice' are used on such a document. Note that the total GST collected is shown as a separate item on the bottom of the receipt. This is important, because the business owner must be able to record all receipts and payments of GST transactions. This will be explored in greater detail later in this text.

3.3 General business documents: cash transactions

There are several basic business documents used repeatedly in the day-to-day activities of a firm. These documents are known as **source documents**, as they are the source of the original accounting data. In order to use documents as part of an accounting system, one must be able to recognise and identify a document, describe its function and be able to transfer its details to the appropriate accounting record. The most common business transactions are those involving cash inflows and cash outflows. In the case of a cash inflow, the document used to provide evidence is a cash receipt. If a business receives cash, a receipt should be issued to the customer and a copy should be kept by the firm. Modern cash registers linked to computers are often used for this purpose, but the principle remains the same. A 'copy' is simply printed on a second roll of paper inside the register. At the end of a day's business, this roll can provide the owner with the total of all cash received. In addition to the receipt shown in figure 3.3, a business may also issue a receipt to a customer who is paying off a credit account or a lay-by purchase. In these cases, a simple handwritten receipt may still be used. The details required on such a document include the essential information: the customer's name, the date of the transaction and the amount of cash received. When using handwritten receipts, it is customary to write the amount received in both words and numbers, to make it totally clear how much has been received. This also helps prevent fraud, such as an individual changing the numbers on the receipt at a later date.

ISBN 978 1 4202 3058 1

Figure 3.4 A cash receipt

G.B. PLUMBING SUPPLIES REC. 75

65 FEATHERTOP ROAD
MELBOURNE 3000 DATE: 16 / 1 / 15

RECEIVED FROM: M. Lionel

THE AMOUNT OF: Eight hundred dollars $ 800

FOR: payment on account

SIGNED: G. Brewster

THANK YOU FOR YOUR BUSINESS

It is common business practice to make all cash payments by cheque. This is done because it automatically provides the firm with a permanent record of all its payments. The firm's bankers can verify all payments made by cheque and thus proof of payment can always be provided. The details of all cheques should be copied on to the **cheque butt**, which acts as the copy of the original document. A cheque written out by G.B. Plumbing Supplies is shown in figure 3.5.

Figure 3.5 Cheque butt and cheque

Date 31 / 3 / 15
Payee CENTRAL PLUMBING SUPPLIES
Fwd $
Chq $ 300–00
Bal. $

Western Western Bank Limited
North Melbourne - Earl Street VIC
date 31 / 3 / 15
Pay Central Plumbing Suppplies or bearer
the sum of THREE HUNDRED DOLLARS ONLY $ 300.00
Not Negotiable
G.B. PLUMBING G. Brewster
3051-3340 6737-84

3.4 Business documents: credit transactions

Many firms extend credit to their regular and trusted customers. Also, most trading firms purchase their inventory on credit from their suppliers. Buying stock for cash can drain the liquid resources of a business and trade credit provides time for a business to try to sell some of its stock before creditors have to be paid. Credit transactions are quite common for trading type businesses and so there is a need for a source document to provide evidence of such events.

An invoice is used to inform a credit customer of the total costs charged for the goods provided. When goods are purchased on credit an invoice is used to communicate the cost of the goods supplied. Therefore invoices can be both received and issued by firms dealing on credit. The same basic style of document is used in both cases. For example, G.B. Plumbing Supplies may buy stock on credit from their suppliers and also provide their products on credit to their customers. In this case, G.B. Plumbing Supplies will receive an original invoice from the supplier of goods whenever inventory items are purchased on a credit basis. If G.B. Plumbing Supplies sells goods on credit, an invoice will be issued to the debtor and G.B. Plumbing will

ISBN 978 1 4202 3058 1

keep a copy for accounting purposes. The invoice is used to inform a customer of the amount owing due to a sale being made to them on credit.

To demonstrate the dual functions of invoices, figure 3.6 shows both an invoice received when goods are purchased by G.B. Plumbing Supplies and an invoice issued by the same business when it has provided goods to a customer on credit.

Figure 3.6a Purchase invoice—original received by G.B. Plumbing Supplies

CENTRAL PLUMBING SUPPLIES
1804 QUEENSBERRY STREET
NORTH MELBOURNE 3051

ABN 22 233 344 455
TAX INVOICE DF8124
DATE: 12/3/15

TO: G.B. PLUMBING SUPPLIES
65 KAREN ROAD
MELBOURNE 3000

CREDIT TERMS: 30 DAYS

Description	Qty	Unit price	Subtotal	GST	Total
Homemaker taps	12	$40.00	$480.00	$48.00	$528.00
1 cm washers	100	$0.10	$10.00	$1.00	$11.00
Totals			$490.00	$49.00	$539.00

Total (excluding GST)	$490.00
Total GST payable	$49.00
Total amount payable (including GST)	$539.00

Figure 3.6b Sales invoice—copy kept by G.B. Plumbing Supplies

G.B. PLUMBING SUPPLIES
65 FEATHERTOP ROAD
MELBOURNE 3000

ABN 33 344 455 566
TAX INVOICE 124
DATE: 21/3/15

TO: L. WITHERS
98 CHARLES ROAD
EAST MALVERN 3145

Description	Qty	Unit price	Subtotal	GST	Total
50 mm PVC 5 metres	2	$10.00	$20.00	$2.00	$22.00
50 mm 90 degree elbows	6	$2.50	$15.00	$1.50	$16.50
Totals			$35.00	$3.50	$38.50

Total (excluding GST)	$35.00
Total GST payable	$3.50
Total amount payable (including GST)	$38.50

CREDIT TERMS: STRICTLY 30 DAYS

ISBN 978 1 4202 3058 1

3.5 Memorandums for internal transactions

Sometimes a small business owner may experience a transaction that does not involve another business entity or individual. That is, the transaction only affects the business and its owner. These transactions are known as **internal transactions**, since external parties are not involved. Examples of such transactions include both the contribution and the withdrawal of assets by the owner (other than cash). Contributions of cash can easily be recorded via a normal receipt. Withdrawals of cash by an owner are usually done by way of a cashed cheque. Therefore, the cheque number can be recorded in the usual fashion. However, if an owner withdraws some stock from the business, none of the conventional documents discussed so far are suitable for recording this type of internal transaction. Invoices, receipts and cheque butts are all designed for specific purposes and a withdrawal of inventory is not one of them. Some businesses may also decide to donate some stock items for advertising purposes or simply as a charitable act. Inventory given away must be accounted for in an organised fashion, just like any other financial event. The cost of such donations must be recorded. Owners should not merely rely on memory, and a note should be written to verify donations made to organisations such as local schools or charities. As with all business documents these notes, called **memorandums** or office **memos**, can be used to help satisfy the demands of **reliability**. Memorandums are yet another example of source documents, as they can be used to provide evidence of internal transactions. Memorandums should be very simple in their design, as they need to be able to cope with a range of unusual transactions. Consider the memorandum in figure 3.7.

Figure 3.7 A typical memorandum

G.B. PLUMBING SUPPLIES		DATE: 25/3/15
OFFICE MEMO:	WITHDRAWAL OF ONE VANITY UNIT	
	COST PRICE: $250	
MEMO NO. 346	SIGNED: G. BREWSTER	

The memorandum shown in figure 3.7 contains all the details necessary to ensure that this internal transaction is not overlooked. It shows the date of the transaction along with a brief description of the event that occurred. It also provides evidence of the cost price of goods withdrawn by the proprietor, and this information can then be recorded in the books of the business on the appropriate date.

3.6 Statements of account

When businesses are buying and selling on credit, an organised approach to accounting is vital. Otherwise it is difficult to keep track of the many transactions that occur. A business that provides credit to its customers must ensure that accounts are collected promptly. Many firms allow their credit customers 30 days in which to settle their accounts, and some businesses allow 60 or even 90 days. As several business documents may be moving back and forth between the

ISBN 978 1 4202 3058 1

two parties in any given month, there is a need to regularly review the situation. A **statement of account** is used to summarise the transactions involving a credit customer over a given period. It is common business practice to issue such a statement monthly. The statement will show the balance owing at the start of the month, all purchases made during the month and any payments that have occurred in that time. The final figure on the monthly statement is the amount currently owing to the firm. Therefore the statement provides a compact summary of the month's transactions. It should also include references to the source documents that evidence the transactions that have occurred. Figure 3.8 shows a statement of account issued by Central Plumbing Supplies to G.B. Plumbing Supplies at the end of March 2015.

Figure 3.8 Statement of account

CENTRAL PLUMBING SUPPLIES
1804 QUEENSBERRY STREET
NORTH MELBOURNE 3051

STATEMENT FOR: MARCH 2015

DATE: 31/3/15

IN ACCOUNT WITH: G.B. PLUMBING SUPPLIES
65 FEATHERTOP ROAD
MELBOURNE 3000

Date	Details	Debits $	Credit $	Balance $
Mar 1	Balance			300.00
3	Payment—thank you		300.00	0.00
12	Invoice DF8124	539.00		539.00
22	Invoice DF8168	56.00		595.00
	BALANCE AT END OF MONTH			595.00

3.7 Other business documents

As an accounting system gathers most of its data from invoices, cheques and receipts, these documents will be emphasised to a greater extent in this text. However, it is important to realise that there may be many other documents used by a business in its daily operations. Many firms use documents such as **order forms** and **quotations** on a regular basis. An order form may be used to request that a supplier deliver certain goods or materials to a business. However, a financial transaction has not occurred at this stage. Orders may be changed or even cancelled. When the goods are delivered a cheque may be written out or an invoice may be received, depending on whether it is a cash or a credit purchase. Clearly, a transaction has now occurred and the cheque or invoice becomes the source document. However, an order form still has a role to play in the accounting process. The details of order forms should be checked against the invoice when it is received to ensure that the correct goods have been delivered. Figure 3.9 is an example of a typical order form.

ISBN 978 1 4202 3058 1

Figure 3.9 Order form

G.B. PLUMBING ORDER NO.: 980
65 FEATHERTOP ROAD
MELBOURNE 3000

SUPPLIER: CENTRAL PLUMBING SUPPLIES
1804 QUEENSBERRY STREET
NORTH MELBOURNE 3051

PLEASE SUPPLY THE FOLLOWING:

Quantity	Description
12	Homemaker taps
100	1 cm washers

DELIVERY REQUIREMENTS: URGENT—WILL PICK UP
DATE: 10/3/15 SIGNED: G. BREWSTER

Similarly, when a firm issues a quotation (commonly called a quote) to a potential customer, it is not recognised as a source document. A transaction has not yet occurred. The quotation may be flatly rejected or it may have to be modified. The customer has to agree to the price and the business has to supply the goods or perform the job before a financial transaction has occurred. If the quotation is accepted and the goods or services are provided, a receipt or invoice will eventually be issued depending on whether it is a cash or a credit transaction. The receipt or invoice becomes the source document for accounting purposes. A quotation form is illustrated in figure 3.10.

Figure 3.10 Quotation form

G.B. PLUMBING QUOTATION NO.: 380
65 FEATHERTOP ROAD
MELBOURNE 3000

QUOTE PREPARED FOR: B. DOWNE
321 GRIEVE STREET
NORTH COBURG 3058

DETAILS OF QUOTE:

SUPPLY OF 120 METRES OF ALUMINIUM SPOUTING @ $5 PER METRE: $600.00

DELIVERED TO ABOVE ADDRESS

PLEASE NOTE: WE CAN ARRANGE FOR INSTALLATION IF REQUIRED

DATE: 1/3/15 SIGNED: G. BREWSTER

N.B. QUOTATION VALID FOR 30 DAYS ONLY

It is important to realise that there may be a need for documents additional to those mentioned above. As an accounting system is designed to suit the needs of an individual business, each case must be judged on its own merits. Other documents used in a trading firm may include **cash register rolls**, **delivery dockets**, **employee pay slips** and **bank statements**, all of

ISBN 978 1 4202 3058 1

which supply valuable data for accounting purposes. As you work through the different topics in this text it is important for you to be able to trace the accounting information back to the original source documents in each case. Business documents play a vital role in all accounting systems, as they initiate much of the raw data that is ultimately used in accounting reports.

3.8 Information flows: the use of business documents

As the most common business documents have been introduced, an example of the information flows within a business can now be presented. This simple example will demonstrate the vital nature of the information contained in business documentation. Using the example of a hardware retailer, figure 3.11 shows the information flows that could occur in the day-to-day operations of the business. The relevant business documents are shown in brackets where applicable.

It should be noted that figure 3.11 does not show all possible information flows for the situation outlined. However, it does serve the purpose of emphasising the importance of business documents in providing information for management. As information will be transmitted between many business entities, it is vital that management should follow an organised approach. This is the key to a successful accounting system. Documents will move in and out of a firm on a continuous basis throughout a reporting period. Business documents create much paperwork, yet they are only the starting point of an accounting system. The actual processes within an accounting system will now be introduced to trace the movement of raw data from business documents through to accounting reports.

Figure 3.11 **Information flows, including business documents**

1 Order form sent to wholesale supplier (order form)

2 Goods delivered by supplier (delivery docket)

3 Supplier charges business for goods provided (purchase invoice)

4 Supplier sends statement at end of month (statement of account)

5 Business pays for goods supplied earlier (cheque)

6 Customer orders goods from retailer (order form)

7 Goods provided to customer (sales invoice)

8 Customer pays for goods provided (receipt)

9 Sales staff are paid wages (cheque)

10 Additional stock is ordered from supplier (order form)

ISBN 978 1 4202 3058 1

3.9 Information flows: an overview of an accounting system

A double entry accounting system can become quite complicated. It is important to understand how each process fits into the overall system. The flow chart shown in figure 3.12 represents a typical double entry accounting system. This diagram should be referred to whenever subsequent topics are introduced in this text. The topics in the following chapters should not be seen as isolated areas. They are part of the overall accounting system and the flow chart shown in figure 3.12 demonstrates this.

Each of the eight processes illustrated in this flow chart will be covered in detail in the following chapters. At this stage you should have a basic appreciation of the role of each of these processes. This will be built on as you progress through each subsequent chapter. The following outline is sufficient at this stage.

1 **Source documents:** these are the original source documents of accounting data; they have already been covered in detail earlier in this chapter.
2 **Journals:** these are also known as **daybooks**, as they are used on a daily basis to record the details of the data contained in source documents. Journals represent the start of the recording process. Some firms use several journals in which transactions of a similar nature are grouped together to make the recording process more efficient.
3 **Ledgers:** a ledger consists of many individual accounts. These accounts are used to record the details of a particular item. For example, the wages account will contain the information relating to the wages expense for a period. The bank account will show all transactions involving the firm's cash at bank account. It is in the general ledger that the process of **double entry** occurs. For each transaction, entries will be made in the two accounts affected by the transaction. One of these entries is known as a **debit** entry, and the other as a **credit** entry. These entries contain information posted (or transferred) from the journals to the ledger accounts. Raw data from documents is gathered in journals, summarised and then posted to the ledger accounts. The principles of double entry are introduced in detail in chapter 4.
4 **Trial balance:** the preparation of a trial balance is a checking procedure that helps to verify that the double entry procedure has been carried out correctly. The trial balance lists the balances of all general ledger accounts and allows one to check that the total of all the debit entries equals the total of all the credit entries.
5 **Balance day adjustments:** under the accrual method of accounting, profit is defined as revenue earned less expenses incurred. The information in a trial balance may not necessarily fall in line with this definition, as the ledger accounts sometimes only include revenue received and expenses paid. Therefore revenue and expense accounts are adjusted on the last day of the reporting period (that is, balance day) so that they equal revenue earned and expenses incurred.
6 **Accounting reports:** at the end of each reporting period, accounting reports are prepared to provide the owners and/or managers with the results of the period's activities.
7 **Evaluation of reports:** once the accounting reports have been prepared it is essential that the results be evaluated. Problem areas must be identified. The performance of the business is usually measured by comparing results against several yardsticks. Areas of evaluation will usually include the profitability, liquidity, efficiency and financial stability of the business.
8 **Planning for the future:** management decision-making should be in response to the current period's results. Budgets should also be prepared in a variety of areas for future periods to allow proper planning decisions to be made. Cash budgets and budgeted income statements should be prepared on a regular basis.

ISBN 978 1 4202 3058 1

Figure 3.12 A double entry accounting system

1 SOURCE DOCUMENTS
Cheques, invoices, receipts, etc.

2 JOURNALS
General journal and special journals
(e.g. Credit sales journal)

3 LEDGERS
General ledger and subsidiary ledgers
(e.g. Debtors ledger)

4 TRIAL BALANCE
A summary of account balances used to check the accuracy of the general ledger

5 BALANCE-DAY ADJUSTMENTS
Revenue and expense accounts are adjusted under the accrual method of accounting

6 ACCOUNTING REPORTS
Cash flow statement, income statement, balance sheet

7 EVALUATION OF REPORTS
Evaluation techniques including ratio analysis, comparisons with previous periods and other yardsticks

8 PLANNING FOR THE FUTURE
Following on from evaluation, decisions should be made for the future of the business, including the preparation of budgets

3.10 Manual versus computerised accounting systems

The overview of the double entry accounting system presented above would normally be appropriate for a manually operated system. Such a system allows manual entries to be made on a daily basis. However, most businesses, particularly the larger types, have now graduated to computerised systems. These have become a practical alternative in recent years because the cost of computer systems has dropped significantly. Computerised systems have the advantage of being able to process data at an incredibly rapid rate compared with manual recording processes. The storage of financial information can also be done in a highly efficient manner using memory sticks, rewritable discs or portable hard drives. As computers are highly reliable in terms of accuracy, they have become a valuable tool for management. However, it must be stressed that the principles of double entry accounting are still present in a computerised system. The principles involved in the overall accounting system are basically the same for both manual and computerised recording methods.

There are two basic disadvantages for small business owners contemplating the introduction of computerised accounting packages. Firstly, even though the cost of computers has decreased significantly in recent times, they still represent a significant additional cost when compared with a manual accounting system. The other problem is that the user of the system requires some knowledge of computers. Although many software packages are now very 'user-friendly', some small business owners have little or no background in computers and are often reluctant to introduce them as part of their firm's accounting system. Of course, as with any business

ISBN 978 1 4202 3058 1

decision, the benefits of a computerised system should be weighed up against the costs of installing and using the system. Therefore a very small business may not purchase a computerised accounting system as the volume of data would probably not warrant spending money on a computer. The larger the business becomes the more likely it is to benefit from the introduction of a computerised system.

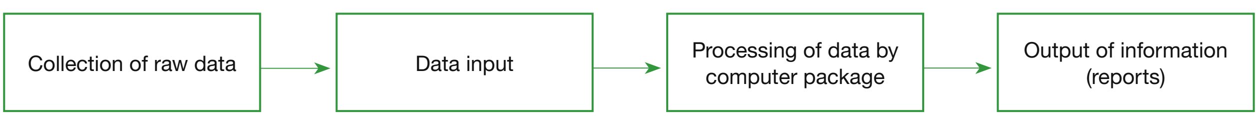
Commercial accounting packages are now plentiful and they all work on the same basic principle. The role of the system is to take the raw data contained on the source documents and record this data in accounts using the double entry process. The output of the program is still a trial balance, providing a summary of the period's transactions, with some packages also preparing the actual accounting reports. Therefore, a total computerised package almost entirely removes the need for the manual recording of information. The emphasis in a computerised system then moves to the evaluation of the information generated by the computer.

With the introduction of the GST, the use of computers in accounting has escalated. Small business owners are now responsible for ensuring that GST transactions are recorded accurately in their accounting systems. The GST had many teething problems when first introduced and, for many business owners, keeping up with the legal requirements of this tax in a manual accounting system was a nightmare. A simple solution for many owners was to purchase a commercially available software package that basically took care of all GST requirements. The need for GST assistance has increased the use of computerised accounting packages to unprecedented levels. To many small business owners, computerised accounting is no longer an option; it is a necessity.

Earlier in this chapter the basic accounting process in a manual system was illustrated in figure 3.1. This diagram can be modified to show the basic steps in a computerised system, as shown in figure 3.13.

Figure 3.13 highlights the fact that the computer is merely a tool used by management to generate the required accounting information. Therefore it is important that the requirements of the firm are clearly defined before computer software is purchased and implemented. Computer packages are of little use if they do not produce the required information. They should also make the process of recording and reporting more efficient. If there is not an obvious net benefit, the computerised system should not be introduced.

Figure 3.13 The accounting process (computerised system)



There are several commercial accounting packages now in common use. Two of the more popular ones are **Mind Your Own Business (MYOB)®** and **Quickbooks®**. Both of these programs are now relatively cheap, are fairly simple to use and have been marketed as complete accounting systems for small businesses. Both packages have been created for use on a personal computer and are an ideal tool for a small business owner to keep track of a firm's financial affairs. These programs have the ability to:

- create business documents (order forms, invoices, statements, etc.)
- record receipts and payments
- record credit transactions
- record inventory movements
- prepare bank reconciliations

ISBN 978 1 4202 3058 1

- record all GST transactions
- prepare accounting reports.

The aim of such programs is not to create unemployment in the accounting profession. In fact, many accountants advise their clients to use such software so that an organised approach to the record keeping of the business is virtually guaranteed. The programs are very user-friendly, but at the same time they provide a structure that the user must follow. A business owner is given reminders and checklists to ensure that all processes have been completed properly. A business owner using *MYOB*® or *Quickbooks*® may then refer to an accountant for assistance in the evaluation of the firm's accounting reports. At the end of the year, of course, advice regarding taxation will usually be sought from a qualified accountant. Commercial computer packages are an excellent tool for small business owners; for a small outlay business owners can run their own accounting software, which is comprehensive, accurate and capable of generating a wide range of reports.

› GLOSSARY OF TERMS

bank statement a document prepared by a firm's bank that summarises all cash transactions between the bank and its customer.

cash receipt a business document used to verify that cash has been received from an outside entity.

cheque butt a butt provides a copy of all details of a cheque when a cash payment has been made.

invoice a document used to communicate the creation of a debt when a credit transaction has taken place.

memorandum a note used to record internal transactions (also known as an office **memo**).

MYOB® abbreviation for **Mind Your Own Business**, a commercially available accounting software package.

order form a business document used to confirm in writing details of a particular request to a supplier for goods or services required.

Quickbooks® a commercially available accounting software package.

source documents business documents that are the source of financial information.

statement of account a document issued to credit customers, which summarises the transactions between the customer and their supplier (usually issued monthly).

tax invoice A business document prescribed by the taxation office that is used to provide evidence of transactions that include the GST.

ISBN 978 1 4202 3058 1

Summary questions

1. State the three basic steps in the accounting process.
2. Explain why it is advisable to produce copies of all business documents.
3. Why are business documents known as 'source documents'?
4. How many copies should be made of business documents? Explain your answer fully.
5. Explain the role business documents play in relation to the GST.
6. State the two source documents used to provide evidence of cash transactions and describe the nature of each type of transaction.
7. Why should all business documents be pre-printed with sequential numbers?
8. What is a tax invoice? State six different items that should be noted on an invoice.
9. Describe two different circumstances where an invoice may be used to provide data about financial transactions.
10. Describe the purpose of a statement of account.
11. State three different types of entries that may appear on a statement of account.
12. Explain why a small business should issue statements to its customers. How often should this be done?
13. Explain why order forms and quotations do not result in a financial transaction for accounting purposes.
14. What is a journal? What is its purpose?
15. Outline the function of a ledger.
16. Explain the link between source documents, journals and ledger accounts.
17. The accounting process does not cease when an income statement and a balance sheet are prepared. Describe two important processes in an accounting system that occurs after these final reports have been completed.
18. State three advantages of a computerised accounting system compared with a manual system.
19. State and describe the four basic steps in a computerised accounting system.
20. Should all businesses prepare their accounting records and reports by computer? Explain your answer fully.

Practical exercises

[Exercise 3.1]

The following transactions relate to Anderson's Auto Parts. For each transaction, copy and complete the table to indicate the source document used and whether or not an original or a copy of the document would be used by Robin Anderson, the owner of the business.

Transaction	Source document	Original or copy
1 Charged a customer for a credit sale		
2 Paid cash for spare parts		
3 Received cash for goods sold		
4 Purchased spare parts on credit		
5 Paid monthly rent		
6 Sent a bill to a customer for goods received		

[Exercise 3.2]

Consider the following document, which was found in the offices of Ballarat Lighting.

BALLARAT LIGHTING NO. 101
SHOP 12
HENDERSON ROAD
BALLARAT 3350

SUPPLIER: WANG ELECTRICALS
84 GRIEVE STREET
NORTHCOTE 3070

PLEASE SUPPLY THE FOLLOWING:

Quantity	Description
6	Tracey ceiling fans (with lights)—product no. 34211
10	Calypso desk lamps—model D321

DELIVERY: REQUIRED BY 30/4/15
DATE: 5/4/15 SIGNED: ALAN PITSON

a What is the name of this document?

b Which business would have the original of this document and which would keep a copy?

c Will this document lead to the creation of other business documents in the future? Explain your answer fully.

d State the two-fold effect that the above document would have on the balance sheet of Ballarat Lighting.

ISBN 978 1 4202 3058 1

[Exercise 3.3] The manager of Hernandez Hardware Store had the following document in his possession.

TOPLINE TIMBERYARD ABN 31 921 291 129 NO. 24512
GEELONG ROAD
WEST FOOTSCRAY 3012 TAX INVOICE DATE: 2/5/15

CHARGE TO: HERNANDEZ HARDWARE TERMS: 30 DAYS
5 CHARLES STREET
LAURENSVILLE 3999

GOODS SUPPLIED:

Qty	Description	Cost	Subtotal	GST	Total
10	1000 × 100 × 50 mm treated pine	$9.00	$90.00	$9.00	$99.00
20	3 metre sleepers	$8.00	$160.00	$16.00	$176.00
					$275.00

TOTAL OF THIS INVOICE (EXCL. GST) $250.00
GST $25.00
TOTAL OF THIS INVOICE (INCL. GST) $275.00

a What is the name of this document?

b What is the nature of the transaction shown in this document?

c Would Hernandez Hardware have the original or a copy of this document? Explain your answer.

d Explain what is meant by the note 'Terms: 30 days'.

e Who has a GST debt to the taxation office as a result of this transaction? Explain fully.

f State the two-fold effect this document has on the balance sheet of:
   i Hernandez Hardware
   ii Topline Timberyard.

[Exercise 3.4] Consider the following document:

AAA STATIONERY ABN 37 217 771 178 NO. 6572
9121 FLINDERS STREET
EAST MELBOURNE 3002 TAX INVOICE DATE: 4/2/15

ACCOUNT NAME: CITY CABS
24 SPENCER AVENUE
PRAHRAN 3181

GOODS PROVIDED:

Qty	Description	Cost	Subtotal	GST	Total
5	Reams 80 gsm printer paper	$7.00	$35.00	$3.50	$38.50
20	A4 office pads	$1.50	$30.00	$3.00	$33.00
					$71.50

TOTAL OF THIS INVOICE (excl. GST) $65.00
GST $ 6.50
TOTAL OF THIS INVOICE (incl. GST) $71.50
ALL ACCOUNTS ARE NET 30 DAYS

a Which business would have:
- i created this document
- ii received this document?

b What type of document is this and what is its purpose?

c What is the purpose of the number 6572 on this document?

d Explain how this document affects the balance sheet of AAA Stationary.

[Exercise 3.5] Eva's Equipment Sales has a copy of the following document:

EVA'S EQUIPMENT SALES NO. 135
17 JOHN STREET
WILLIAMSTOWN 3016
RECEIVED FROM: M. Mason
THE AMOUNT OF: Fifty dollars $ 50.00
FOR: Payment on lay-by account no. 11022
DATE: 26 / 2 / 15 SIGNED: E. Sharon

a State the name of this source document.

b Explain why the amount is written in both words and numbers.

c A friend of Eva has suggested that a computerised system would be able to generate such documents. Explain to Eva two benefits in using a computer for such a process.

d State two disadvantages of introducing a computer into Eva's business.

ISBN 978 1 4202 3058 1

[Exercise 3.6] Michael Forte is the proprietor of Forte's Fine Furniture. He has provided you with the following business documents:

FORTE'S FINE FURNITURE		DATE: 22/2/15
OFFICE MEMO:	ONE OFFICE DESK: COST	$550
	ONE OFFICE CHAIR: COST	$150
	(SON'S BIRTHDAY)	
MEMO NO. 101	SIGNED: M. Forte	

FORTE'S FINE FURNITURE		DATE: 3/3/15
OFFICE MEMO:	DONATION OF WALL UNIT TO PASCOE VALE PRIMARY SCHOOL FOR RAFFLE PRIZE	
	COST PRICE	$690
MEMO NO. 102	SIGNED: M. Forte	

a Describe the two transactions recorded on the two office memorandums.

b Explain why memorandums such as those used by Forte are necessary.

c Explain the two-fold effect of memo number 101 on the balance sheet of Forte's Fine Furniture.

[Exercise 3.7] The following document was found in the offices of Point Cook Computers, a small business owned and operated by Tiffany Baldacchino.

POINT COOK COMPUTERS ABN 21 546 434 379
999 AVIATION ROAD
POINT COOK 3030 DATE: 30 JUNE 2015

STATEMENT FOR: C. TRAN & ASSOCIATES
231 GEELONG ROAD
LAVERTON 3028

DATE	DETAILS	DR $	CR $	BAL. $
JUN 1	BALANCE			540
8	INVOICE 37282	430		970
15	PAYMENT—WITH THANKS		540	430
24	INVOICE 37314	560		990

a State the name of this business document.

b State the name of the business that:
i created the document ii received the document.

c In a balance sheet prepared by Baldacchino, under what heading would you expect to find C. Tran & Associates?

d Describe the nature of the transaction that occurred on 24 June.

e Explain the purpose of this document.

CASE STUDY

LYNNE GRAY has just decided to establish a small business, trading under the name Bayside Sporting Goods. She is unsure about a few organisational matters in relation to the accounting needs of her business. A friend has advised her to keep copies of all documents used in the day-to-day affairs of her firm. Gray thinks most of her sales will be for cash, but occasionally she may sell on credit to the local schools in the area. Several sporting goods manufacturers will provide the stock she plans to sell. Gray expects to be provided with trade credit terms of 30 days by all suppliers. Similarly, she will extend credit terms to customers with a proven credit history. As most of her sales will be for cash, she anticipates always having cash in the register, so payments of expenses in cash will not be a problem. (There is a bank branch across the road from the shop.) To assist Gray with her planning, she has asked you to provide advice on the following.

a Make a list of all business documents that Gray could reasonably expect to use in the operations of her new business. Next to each document's name, make a brief note about its purpose.

b Which of the business documents you listed will run in sequential order according to their document numbers?

c If Gray makes a credit sale to a local school, state six different items that should appear on the document issued to the customer.

d Comment on Gray's method of paying expenses using cash from the cash register of the firm.

e Gray's friend has advised her that cash register rolls play two roles in accounting. Describe the two purposes of having cash register rolls in a small business.

f Explain the link between business documents and the qualitative characteristics of accounting.

g Using computer technology, design a tax invoice for Gray's business that would satisfy the taxation office in relation to its GST guidelines.

INTERNET activity

Accounting software packages are constantly being upgraded to suit the needs of small businesses. The following internet addresses may be used to research some of the latest programs available in relation to computerised accounting:

Quicken® **www.quicken.com.au**

Mind Your Own Business® **www.myob.com.au**

a Make a list of the accounting packages available for small business owners.

b Write a brief description of each of the packages available.

ISBN 978 1 4202 3058 1

Chapter 4

The double entry recording process

OBJECTIVES

At the completion of this chapter, you should be able to:

- describe what is meant by 'double entry accounting'
- state the rules of double entry for the different types of accounts
- determine when a debit entry or a credit entry is required in the ledger accounts
- prepare an analysis chart showing debits and credits for a variety of transactions
- record financial transactions in general ledger T-accounts
- foot ledger accounts to determine a balance
- formally balance a T-form ledger account
- describe the purpose of a trial balance
- prepare a trial balance from a general ledger
- outline the recording errors a trial balance will not detect
- use a trial balance to detect particular types of recording errors
- record drawings in the general ledger
- show the effect of drawings on owner's equity in a balance sheet.

ISBN 978 1 4202 3058 1

4.1 Double entry accounting: an introduction

In chapter 2 the concept of **double entry accounting** was introduced, when a balance sheet was prepared after a particular financial transaction. After each transaction two report items were affected by the same dollar amount. This is the essence of double entry accounting: two items are affected by every transaction. However, it would be ridiculous to have to prepare a new balance sheet after every single business transaction. A balance sheet is prepared at the conclusion of each reporting period, but the details of transactions that occur during a period are recorded in **ledger accounts**. All of these ledger accounts are kept together and make up an accounting record referred to as the **general ledger**. That is, the general ledger is made up of many ledger accounts. A ledger account is simply a financial record that relates to a particular item within the business. For example, the details relating to the firm's wages would be recorded in the wages account. As wages are paid in cash, the other half of the double entry would be recorded in the cash at bank account. If the firm purchased a vehicle for cash, the details would be recorded in a vehicles account and the cash at bank account. Both of these transactions involve a cash payment. The double entry for these two transactions is shown in figure 4.1. (Amounts have been created to make the transactions realistic.)

Figure 4.1 Ledger accounts

Vehicles account

		$			$
Mar 1	Cash at bank	18 000			

Wages account

Mar 4	Cash at bank	400			

Cash at bank account

			Mar 1	Vehicles	18 000
			Mar 4	Wages	400

There are three parts to an entry in a ledger account. The date of the transaction is entered first. This is followed by the name of the other account (referred to as a cross reference) affected by the double entry. The last part of the entry is the actual dollar value of the transaction. In figure 4.1 it should be noted that there is one entry on the left side of an account and one entry on the right side of another account for each transaction. This is the nature of double entry accounting: one debit entry and one credit entry for each financial transaction. The debit side is on the left side of a ledger account and the credit on the right side, as shown below:

Ledger account

Debit side	Credit side

ISBN 978 1 4202 3058 1

There are set rules as to whether an entry is a debit or a credit. The easiest way to learn these rules is to work from the basic format of a T-form balance sheet, which is set out as follows:

Balance sheet as at ...	
Assets	Liabilities Owner's equity

The traditional format of the balance sheet shown above can be equated to the rules of double entry accounting. Assets appear on the left side of the report and are debit in nature as ledger accounts. Liabilities and owner's equity are on the right side of the balance sheet and are credit in nature in ledger accounts. This means that assets will usually have debit balances and are increased with debit entries. Liabilities and owner's equity accounts will usually have credit balances and are increased by credit entries. The opposite holds true if an account has to be decreased. Assets are decreased with credits, and liabilities and owner's equity are decreased with debits. The table shown in figure 4.2 is a summary of these basic rules.

Figure 4.2 Rules for double entry recording (A, L, OE)

Account Classification	Increased by	Decreased by
Assets	Debits	Credits
Liabilities	Credits	Debits
Owner's equity	Credits	Debits

In order to record entries in ledger accounts the following procedure is recommended. These steps should be followed in sequence until the rules of double entry are fully understood.

Step 1: State the two ledger accounts affected by the financial transaction.

Step 2: Classify the ledger accounts according to their balance sheet classifications.

Step 3: State whether the account is being increased or decreased.

Step 4: By referring to the rules of debit and credit, state whether the accounts will have a debit or a credit entry.

Example 1 (no GST to be recorded): A business purchased a second-hand vehicle for cash. The four steps outlined previously produce the following responses:

Step 1: two ledger accounts affected: vehicle/cash at bank.

Step 2: balance sheet classifications: asset/asset.

Step 3: increase or decrease: increase/decrease.

Step 4: debit or credit: debit/credit.

Note that there is one debit entry and one credit entry. Therefore the rules of double entry are satisfied. The debit to the vehicle account is required, as this account has to be increased. As the firm has spent cash, the cash at bank account is decreased and assets are decreased by credit entries.

Example 2 (no GST to be recorded): A firm takes out a loan.

Step 1: two ledger accounts affected: cash at bank/loan.

Step 2: balance sheet classifications: asset/liability.

ISBN 978 1 4202 3058 1

Step 3: increase or decrease: increase/increase.
Step 4: debit or credit: debit/credit.

Note that in this example both ledger accounts are increased by the transaction. The cash at bank account is increasing because the firm has received cash via the loan. The loan account is increasing because the firm now has a future obligation to another entity. However, there is still one debit entry and one credit entry created by the transaction.

You should also get accustomed to recording business transactions that include the GST. Consider the following example.

Example 3 (with GST): A business buys a computer for $2000 cash, plus GST of $200. This is similar to example 1 above, with the addition of a GST payment. In this case there will be three accounts affected by the transaction. However, the same approach can be used to determine the debits and credits required.
Step 1: ledger accounts affected: computer/cash at bank/GST clearing.
Step 2: balance sheet classifications: asset/asset/liability.
Step 3: increase or decrease: increase/decrease/decrease.
Step 4: debit or credit: debit/credit/debit.

Note that 'GST clearing' is the usual title of the account used to keep track of all GST transactions. This title will be used throughout this text. Although it is generally viewed as a liability account, it is important to note that this account may have either a credit balance (liability) or a debit balance (asset account). As the GST clearing account may be either an asset or liability at the end of a reporting period, it will be assumed for the time being that a credit balance exists and therefore it will be classified as a liability account.

In example 3 above, there are two debit entries and only one credit entry; however, once amounts are included, the entries will still balance out. In this case, the computer account is debited $2000, GST clearing is debited $200 and Cash at Bank is credited $2200. Thus, the two debit entries equal the same dollar amount as the credit entry to cash at bank.

Rather than demonstrate the double entry process repeatedly through these four steps, an **analysis chart** can be used for this purpose. An analysis chart provides an analysis of a financial transaction leading to the double entry being determined for recording in ledger accounts. The analysis chart in figure 4.3 demonstrates the method of determining the double entry for a variety of financial transactions. In figure 4.4 the actual ledger accounts have been prepared showing the double entry for each financial transaction.

Note: It is important to be able to work through the analysis chart in figure 4.3 to ensure that you can arrive at the correct double entry for each transaction.

The double entries shown in figure 4.3 would be recorded in ledger accounts as follows:

Figure 4.3 Analysis chart

Transaction	Account names	Classification	Increase/ Decrease	Debit/ Credit
1 The owner contributed $25 000 to commence business	Cash at bank Capital	Asset Owner's equity	Increase Increase	Debit Credit
2 The business took out a loan for $10 000	Cash at bank Loan	Asset Liability	Increase Increase	Debit Credit
3 Purchased a computer for cash $3000, plus GST of $300	Computer GST clearing Cash at bank	Asset Liability Asset	Increase Decrease Decrease	Debit Debit Credit

ISBN 978 1 4202 3058 1

Transaction	Account names	Classification	Increase/ Decrease	Debit/ Credit
4 Made a loan repayment of $1000	Loan Cash at bank	Liability Asset	Decrease Decrease	Debit Credit
5 Bought stock for $600 cash, plus GST of $60	Stock control GST clearing Cash at bank	Asset Liability Asset	Increase Decrease Decrease	Debit Debit Credit
6 The owner contributed an office desk worth $800 to the business	Office furniture Capital	Asset Owner's equity	Increase Increase	Debit Credit

Figure 4.4 General ledger accounts

Cash at bank a/c

		$			$
1	Capital	25 000	3	Computer/GST clearing	3 300
2	Loan	10 000	4	Loan	1 000
			5	Stock control/GST clearing	660

Capital a/c

			1	Cash at bank	25 000
			6	Office furniture	800

Loan a/c

4	Cash at bank	1 000	2	Cash at bank	10 000

Computer a/c

3	Cash at bank	3 000			

GST clearing a/c

3	Cash at bank	300			
5	Cash at bank	60			

Stock control a/c

5	Cash at bank	600			

Office furniture a/c

6	Capital	800			

Notes to figure 4.4:

1. 'a/c' is an accepted abbreviation of the word 'account'.
2. Note the entries in the cash at bank account that involve the GST. As there are two debits, the credit in the bank account can be combined to show both accounts (for example, computer/GST clearing). Although it is permissible to enter these two accounts separately, it is also acceptable to enter them as shown above.

ISBN 978 1 4202 3058 1

3 The stock control account is used to record all movements of inventory in and out of the firm during a period. All purchases of stock are recorded on the debit side of the account. Further details regarding the use of the stock control account appear later in this chapter. More information about the control function of this account will be provided later in this text.

4 Dates have not been used in this example. Instead, the numbers where the date is usually recorded refer to the number of the transaction in the analysis chart as shown in figure 4.3.

4.2 Double entry for revenues and expenses

Having applied the rules of double entry to the three classifications of A, L and OE, we must now expand them to include the other two types of ledger accounts: those of revenues and expenses. Revenues (R), being inflows of economic benefits, have the effect of increasing owner's equity. Expenses (E) are defined as losses of economic benefits and have the effect of decreasing the owner's equity. Expenses can also be described as costs involved in obtaining economic benefits (that is, the revenue earned by a business). Therefore, as revenue increases owner's equity, a revenue ledger account will be the same in nature to owner's equity. Revenue accounts are credit in their nature and are increased by credit entries. Expenses have the opposite effect on owner's equity and therefore are debit in their nature and are increased by debit entries. The table shown in figure 4.2 can now be expanded to include revenues and expenses, as shown in figure 4.5.

Figure 4.5 Rules for double entry (A, L, OE, R, E)

Account Classification	Increased by	Decreased by
Assets	Debits	Credits
Liabilities	Credits	Debits
Owner's equity	Credits	Debits
Revenues	Credits	Debits
Expenses	Debits	Credits

The four steps listed earlier for determining the double entry for a transaction can also be applied to transactions involving revenues and expenses. The analysis chart in figure 4.6 has been created by using the same procedures demonstrated earlier. This time, however, some of the transactions involve revenue and expense items.

Figure 4.6 Analysis chart (including revenue and expenses)

Transaction	Account names	Classification	Increase/ Decrease	Debit/ Credit
1 The owner contributed $40 000 to commence business	Cash at bank Capital	Asset Owner's equity	Increase Increase	Debit Credit
2 Bought stock for $5 000 cash, plus GST of $500	Stock control GST clearing Cash at bank	Asset Liability Asset	Increase Decrease Decrease	Debit Debit Credit

ISBN 978 1 4202 3058 1

Transaction	Account names	Classification	Increase/ Decrease	Debit/ Credit
3 Bought office furniture on credit for $2 000, plus GST of $200	Office furniture GST clearing Creditors	Asset Liability Liability	Increase Decrease Increase	Debit Debit Credit
4 Sold goods for $1 000 cash, plus GST of $100 (cost price of goods sold $600)	Cash at bank GST clearing Sales and Cost of sales Stock control	Asset Liability Revenue Expense Asset	Increase Increase Increase Increase Decrease	Debit Credit Credit and Debit Credit
5 Paid creditor for office furniture bought previously $2 200	Creditor Cash at bank	Liability Asset	Decrease Decrease	Debit Credit
6 Sold goods on credit for $2 000, plus GST of $200 (cost of sales $800)	Debtors GST clearing Sales and Cost of sales Stock control	Asset Liability Revenue Expense Asset	Increase Increase Increase Increase Decrease	Debit Credit Credit and Debit Credit
7 Paid wages $500	Wages Cash at bank	Expense Asset	Increase Decrease	Debit Credit

The double entries shown in the above analysis chart would be recorded in ledger accounts as follows:

Figure 4.7 General ledger accounts

Cash at bank a/c

		$			$
1	Capital	40 000	2	Stock control/GST clearing	5 500
4	Sales/GST clearing	1 100	5	Creditors	2 200
			7	Wages	500

Capital a/c

			1	Cash at bank	40 000

Creditors a/c

		$			$
5	Cash at bank	2 200	3	Office furniture/GST clearing	2 200

Office furniture a/c

3	Creditors	2 000			

continued

Sales a/c

		$			$
			4	Cash at bank	1 000
			6	Debtors	2 000

Stock control a/c

2	Cash at bank	5 000	4	Cost of sales	600
			6	Cost of sales	800

Cost of sales a/c

4	Stock control	600			
6	Stock control	800			

GST clearing a/c

2	Cash at bank	500	4	Cash at bank	100
3	Creditors	200	6	Debtors	200

Debtors a/c

6	Sales/GST clearing	2 200			

Wages a/c

7	Cash at bank	500			

A key point to note at this stage is that, whenever stock is purchased by a business, a debit entry must be made to the **stock control** account, as it represents an increase in an asset. The corresponding credit will be shown in either the **cash at bank** account (for a cash purchase) or in the **creditors account** (for a credit purchase). When goods are sold, the economic resource of stock has been sacrificed and therefore the asset becomes an expense [SAC2]. The double entry required is therefore a debit to the **cost of sales** account (to increase the expense) and a credit to **stock control** (to decrease the asset). It is important to remember that there will always be one double entry required to record a purchase of stock, but two double entries are necessary whenever stock is sold. This is because there are two events actually occurring. The first is the earning of revenue by the business through the sale of goods. The second event is the sacrifice of stock (an asset) by the business in order to earn its sales. Therefore, the first double entry is made to record the selling price of the goods to the customer by the firm. The economic benefit gained by the business is the value the goods are actually sold for; therefore this value must be credited to the revenue account (that is, the sales account). The bank account is debited in the event of a cash sale, or the debtors account is debited if the sale was on credit. Regardless of whether it is a cash or a credit sale, the GST clearing account must always be credited when a sale is made. The second entry records the cost price of the goods sold. Some of the firm's stock has been sacrificed in order to earn revenue. Therefore, the cost of the goods sold is transferred from the **stock control account** (an asset) to the **cost of sales account** (an expense). This treatment complies with SAC2, as revenue is an increase in economic resources (the selling price of the goods sold) and the expense is the consumption of economic resources (the cost of the goods sold).

ISBN 978 1 4202 3058 1

Entries may be made in ledger accounts (as shown in figure 4.7) as the transactions occur during a reporting period. The rules of double entry remain consistent for all businesses, regardless of size or structure. It is vital that the rules of double entry are fully understood at this stage, as all subsequent chapters in this text assume a knowledge of the rules of debit and credit for the full range of accounts.

4.3 Footing and balancing ledger accounts

Ledger accounts may contain debits and credits from many transactions during a reporting period. The balance of an account is the difference between the total debit entries and the total credit entries in the one account. If an account has debit entries totalling \$10 000 and credit entries amounting to \$9 000, the balance of the account is said to be \$1 000 debit. An account with debits of \$350 and credits of \$400 would have a credit balance of \$50. Sometimes the balance of an account may not be immediately apparent. There are two procedures that can be followed to determine the actual balance of a ledger account. The first of these is **footing an account**, which is demonstrated in figure 4.8.

Figure 4.8 Footing an account

Cash at bank a/c

			$			$
Feb 1	Capital		10 000	Feb 2	Stock/GST clearing	2 000
3	Sales/GST clearing		1 000	4	Advertising/GST clearing	200
4	Sales/GST clearing		800	5	Computer/GST clearing	2 300
6	Sales/GST clearing		1 200	6	Wages	500
		5 000		7	Stock/GST clearing	3 000
			13 000			8 000

To foot an account, the totals of the debit side and the credit side are calculated and written in pencil on either side of the account. The smaller of the two figures is then deducted from the larger amount and the difference is noted as the balance on the larger side. To highlight the balance of an account once it has been footed, the balance is usually circled in pencil. In the cash at bank account shown above, the balance is \$5 000 debit. The reason that footing is usually done in pencil is that it is an informal procedure to determine balances during a reporting period. For example, management may want to know the balances of accounts after a week or a month, even though the reporting period may be for a whole year. The accounts can be footed to determine their balances and then additional entries may be entered in the normal way.

In contrast to the informal footing procedure is the formal process of balancing an account. Accounts are balanced at the end of a reporting period (that is, balance day) to determine the balances to be included in the firm's balance sheet. When an account is balanced it is not done in pencil. As with all formal accounting records, the balancing procedure becomes part of the firm's permanent records. The formal balancing of an account is shown in figure 4.9.

ISBN 978 1 4202 3058 1

Figure 4.9 Balancing a ledger account

Cash at bank a/c

2015		$	2015		$
Mar 1	Sales/GST clearing	1 000	Mar 3	Wages	500
6	Sales/GST clearing	800	9	Advertising/GST clearing	400
12	Sales/GST clearing	900	17	Wages	500
18	Sales/GST clearing	1 200	26	Stock/GST clearing	4 000
25	Loan	5 000	30	Insurance/GST clearing	600
29	Sales/GST clearing	1 100	31	Balance	4 000
		10 000			10 000
Apr 1	Balance	4 000			

This account has been formally balanced by the following procedure. The two sides of the ledger account have been totalled and the larger amount is written on **both** sides of the account. On the side with the lower total (in this case the credit) the difference between the two sides (that is, $4000) is entered as the balance. Once this balancing figure has been entered, the two sides are now equal and the account is ruled off as balanced. As the balancing figure was entered on the credit side it is then carried down to the opposite side of the account. The cash at bank account shown above has a debit balance of $4000. This amount would then appear as a current asset in the balance sheet of the firm as at 31 March 2015. It should be noted that the final balance has been carried down on the last day of the reporting period—in this example 31 March. The balance in the ledger account is then ready for the new reporting period and therefore is an opening balance as at 1 April 2015.

The procedure is exactly the same if an account has a credit balance. In this case the total credit entries exceed the total debits. The missing figure will appear on the debit side and is carried down to the credit side of the account. To demonstrate this procedure a Loan account (liability) has been prepared, as shown in figure 4.10.

Figure 4.10 Balancing a ledger account (credit balance)

Loan a/c

2015		$	2015		$
Mar 31	Cash at bank	500	Jan 1	Balance	6 000
Jun 30	Cash at bank	500			
Sep 30	Cash at bank	500			
Dec 31	Cash at bank	500			
Dec 31	Balance	4 000			
		6 000			6 000
			2016		
			Jan 1	Balance	4 000

This account shows an amount of $6000 owing as at 1 January 2015. Four quarterly repayments have been made during the year and the account has been balanced at 31 December 2015 to

ISBN 978 1 4202 3058 1

reveal that a liability of $4000 still exists. This amount would then be reported in the balance sheet of the business at this date.

4.4 The role of the trial balance

During a reporting period there may be hundreds or thousands of transactions resulting in debits and credits in ledger accounts. Obviously, with such a large amount of recording, errors can occur from time to time. A **trial balance** can be prepared periodically during a reporting period as well as at the end of each reporting period to detect errors in double entry recording. It lists all the general ledger accounts with their balances on a specific date. An example of a trial balance is shown for the business of Mancuso's Mowers (figure 4.11).

A trial balance is used to check that the total of all debit entries is equal to the total of all credit entries. It does not detect all errors; only those where the debits do not equal the credits. There may be some errors made during the period that will not be detected by a trial balance. These include:

- **entering an incorrect amount for both the debit and credit**. For example, $98 is entered in both accounts instead of $89.
- **entering a debit or credit in the wrong account**. For example, a payment of rent is debited to the wages account instead of the rent account.
- **the debit and credit entries are reversed**. That is, the account that should have been debited is credited and vice versa.
- **omitting a transaction completely**. That is, both the debit and the credit are not entered at all.
- **compensating errors**. That is, two recording errors have occurred but they counteract one another. The end result is that the trial balance is in balance by sheer good luck!

None of the above recording errors will be detected through the preparation of a trial balance. This is because all of the errors listed above comply with the rules of double entry—that is, a debit for every credit for each transaction. Although each of the above-named errors results in incorrect information being recorded in ledger accounts, the trial balance will in fact still balance. However, a trial balance should still be prepared regularly to detect errors that do not satisfy the rules of double entry accounting.

Figure 4.11 Trial balance showing general ledger account balances

Mancuso's Mowers: trial balance as at 30 June 2015

	Dr* $	Cr‡ $
Advertising	1 000	
Capital—Mancuso		9 000
Cash at bank	2 000	
Cost of sales	4 000	
Creditors		1 000
Debtors	2 000	
GST clearing		1 000
Stock control	8 000	
Sales		9 000
Wages	3 000	
	20 000	20 000

* Dr—indicates that the account has a debit balance.
‡ Cr—indicates that the account has a credit balance.

ISBN 978 1 4202 3058 1

4.5 Detecting errors through a trial balance

A trial balance will not balance if double entry accounting has not been completed properly. If a trial balance does not balance, the cause of the problem must then be located. Errors can result because of a number of reasons, but there are some common errors that are easily detectable. These are outlined below.

Debit or credit omitted

When a trial balance does not balance, the difference between the total debits and total credits should be determined. This figure should then be checked with the transactions listed for the period (these will be in the analysis chart if one has been done). This procedure will detect a single error where one debit or one credit has been omitted.

Duplication of a debit or credit

Two debits or two credits are sometimes made for the one transaction. In this case the error can be detected by determining the difference in the trial balance totals and dividing this number by two. For example, if wages of $200 were paid, the correct double entry is a debit to Wages and a credit to cash at bank. If both of the accounts have been debited, the total debits in the trial balance will be $400 higher than the credit side because the cash at bank account was debited when it should have been credited. Not only is the credit of $200 missing, but also an incorrect debit of $200 has been made. This type of error can be detected by dividing the difference in the trial balance by two and then tracing the result back to the original transaction.

Transposing errors

A third type of error can be located by dividing the difference in the trial balance totals by nine. This will identify a transposing error whereby a dollar value has been incorrectly copied into a ledger account. For example, a figure of $197 may have been entered as $179 in one account. The difference in the trial balance due to this error would be $18, which is exactly divisible by nine. Such a transposing error is more likely to occur with larger numbers. For example, a figure of $12 540 may have been entered as $12 450. The difference in this case is $90, which is once again exactly divisible by nine.

The above methods of detecting errors do not guarantee that all mistakes will be easily located in ledger accounts. If several recording errors have been made, the above techniques will not be successful. If all three methods have been used and the errors are still not detected, there may be multiple recording errors. Each double entry should then be checked against the transaction data supplied.

4.6 Alternative presentation of a trial balance

There are two acceptable methods of displaying the ledger account information in a trial balance. The trial balance shown previously in figure 4.11 may be prepared in an alternative format. This alternative method groups all the accounts with debit balances together and all the credit accounts together. Both of the two methods demonstrated in this chapter are acceptable and it

ISBN 978 1 4202 3058 1

is a matter of personal preference which one is used. The alternative format of a trial balance, which uses a 'T' to distinguish between accounts with debit and credit balances, is shown in figure 4.12.

Figure 4.12 T-form trial balance

Mancuso's Mowers: trial balance as at 30 June 2015

	$		$
Advertising	1 000	Capital—Mancuso	9 000
Cash at bank	2 000	Creditors	1 000
Cost of sales	4 000	GST clearing	1 000
Debtors	2 000	Sales	9 000
Stock control	8 000		
Wages	3 000		
	20 000		20 000

4.7 Case study: from transactions to the balance sheet

This case study has been developed to demonstrate the system of recording transactions in ledger accounts followed by the preparation of a trial balance and accounting reports.

The following transactions took place during the month of March 2015. They all relate to Quinn's Furniture, a small business owned and operated by Leigh Quinn. The transactions will be entered in the general ledger of the firm and a trial balance will be prepared as at 31 March 2015. From the trial balance an income statement and balance sheet will be prepared.

Mar 1	Quinn deposited $30 000 in a separate bank account to commence business as Quinn's Furniture
2	Purchased stock for cash $10 000, plus GST of $1 000
3	Purchased a delivery van for $15 000 cash, plus $1 500 GST
4	Paid rent for the first month $1 500, plus GST of $150
6	Paid advertising $500, plus GST of $50
8	Purchased stock on credit from Better Furniture for $1 200, plus GST of $120
11	Cash sales made to customers $3 000, plus GST of $300 (cost price $1500)
17	Charged M. Hunt $500, plus GST of $50, for bar stools sold on credit (cost price $300)
19	Paid postage $100, plus GST of $10
21	Received from cash clients $800 for sales, plus GST of $80 (cost price $400)
24	Invoiced A. Cuda $500, plus GST of $50 for recliner chair (cost price $200)
25	Received $550 from M. Hunt on account
28	Received $900, plus GST of $90 from cash clients (cost price $450)
29	Paid advertising $500, plus GST of $50
30	Paid Better Furniture $200
31	Paid monthly petrol account $150, plus GST of $15

ISBN 978 1 4202 3058 1

Quinn's Furniture: general ledger

Cash at bank a/c

		$			$
Mar 1	Capital	30 000	Mar 2	Stock control/GST clearing	11 000
11	Sales/GST clearing	3 300	3	Delivery van/GST clearing	16 500
21	Sales/GST clearing	880	4	Rent/GST clearing	1 650
25	Debtor—Hunt	550	6	Advertising/GST clearing	550
28	Sales/GST clearing	990	19	Postage/GST clearing	110
			29	Advertising/GST clearing	550
	4 995		30	Creditor—Better Furniture	200
			31	Petrol/GST clearing	165
		35 720			30 725

Capital a/c

			Mar 1	Cash at bank	30 000

Stock control a/c

Mar 2	Cash at bank	10 000	Mar 11	Cost of sales	1 500
8	Creditor—Better Furniture	1 200	17	Cost of sales	300
			21	Cost of sales	400
	8 350		24	Cost of sales	200
			28	Cost of sales	450
		11 200			2 850

Cost of sales a/c

Mar 11	Stock control	1 500			
17	Stock control	300			
21	Stock control	400			
24	Stock control	200			
28	Stock control	450			
	2850				

GST clearing a/c

Mar 2	Cash at bank	1 000	Mar 11	Cash at bank	300
3	Cash at bank	1 500	17	Debtor—M. Hunt	50
4	Cash at bank	150	21	Cash at bank	80
6	Cash at bank	50	24	Debtor—A. Cuda	50
8	Creditor—Better Furniture	120	28	Cash at bank	90
19	Cash at bank	10			
29	Cash at bank	50			
31	Cash at bank	15			
	2 325				
		2 895			570

ISBN 978 1 4202 3058 1

Delivery van a/c

Date	Particulars		$	Date	Particulars		$
Mar 3	Cash at bank		15 000				

Rent a/c

Mar 4	Cash at bank		1 500				

Advertising a/c

Mar 6	Cash at bank		500				
29	Cash at bank		500				
		1 000					

Creditor—Better Furniture a/c

Mar 30	Cash at bank		200	Mar 8	Stock control/GST clearing		1 320
			200			1 120	1 320

Sales a/c

				Mar 11	Cash at bank		3 000
				17	Debtor—M. Hunt		500
				21	Cash at bank		800
				24	Debtor—A. Cuda		500
				28	Cash at bank	5 700	900

Debtor—M. Hunt a/c

Mar 17	Sales/GST clearing		550	Mar 25	Cash at bank		550
			550				550

Postage a/c

Mar 19	Cash at bank		100				

Debtor—A. Cuda a/c

Mar 24	Sales/GST clearing		550				

Petrol a/c

Mar 31	Cash at bank		150				

The general ledger accounts above have been footed where appropriate and the balances of all accounts are now available for trial balance preparation. Note how the balance of the debtor—M. Hunt account is zero as at 31 March as the total debits are exactly equal to the total credits.

ISBN 978 1 4202 3058 1

Quinn's Furniture: trial balance as at 31 March 2015

	$		$
Cash at bank	4 995	Capital	30 000
Stock control	8 350	Creditor—	1 120
Cost of sales	2 850	Better Furniture	
GST clearing	2 325	Sales	5 700
Delivery van	15 000		
Rent	1 500		
Advertising	1 000		
Postage	100		
Debtor—A. Cuda	550		
Petrol	150		
	36 820		36 820

This trial balance shows that the total debit entries equal the total credits and therefore the trial balance balances. As it appears that the double entry process has been done correctly, the accounting reports can now be prepared. Of the five types of accounts that are used in the general ledger (A, L, OE, R, E), two are used for the preparation of the income statement (R, E) and the other three are used to prepare the balance sheet (A, L, OE). Therefore the ledger accounts in the trial balance have to be classified in order to prepare the accounting reports. As profit equals revenue less expenses, these items are used to prepare the income statement. This leaves the accounts which make up the accounting equation; that is, A = L + OE. The two reports appear below:

Quinn's Furniture: income statement for month ended 31 March 2015

	$	*$*
Sales		5 700
less cost of sales		2 850
Gross profit		2 850
less Expenses		
Rent	1 500	
Advertising	1 000	
Postage	100	
Petrol	150	2 750
Net profit		100

Quinn's Furniture: balance sheet as at 31 March 2015

Current assets	*$*	*$*	*Current liabilities*	*$*	*$*
Cash at bank	4 995		Creditor—Better Furniture		1 120
Stock control	8 350				
GST clearing	2 325				
Debtor—A. Cuda	550	16 220	*Owner's equity*		
Non-current assets			Capital	30 000	
Delivery van		15 000	plus net profit	100	30 100
		31 220			31 220

ISBN 978 1 4202 3058 1

4.8 Accounting for drawings

Drawings occur when the proprietor of the business withdraws assets for personal use. Drawings may include a variety of assets, but the most common asset withdrawn is usually cash. The classification of drawings is as an owner's equity account, but it is the opposite of capital and is therefore negative in its nature. It requires an entry opposite to that which occurs when an owner puts capital into the business. When an owner withdraws an asset, the asset account involved will be credited, with the debit entry being made in a drawings account. A cash withdrawal would be recorded as follows:

Cash at bank a/c

		$			$
			Jan 10	Drawings	500

Drawings a/c

Jan 10	Cash at bank	500			

At the end of a reporting period, the balance of the drawings account is treated as a negative figure under the owner's equity section of the balance sheet. For example, if the capital account had a balance of $50 000, the profit earned for the year was $20 000 and the drawings during the period were $10 000, the owner's equity would be calculated as follows:

Balance sheet (extract)

Owner's equity	*$*	*$*	*$*
Capital	50 000		
plus net profit	20 000	70 000	
less drawings		10 000	$60 000

› GLOSSARY OF TERMS

analysis chart a table used to determine the breakdown of a financial transaction into debit and credit entries, based on the rules of double entry.

balancing an account a formal procedure performed at the end of a reporting period. Accounts are balanced when a missing figure is entered on one side of a ledger account to bring it up to the greater total found on the other side of the account.

double entry accounting a system of accounting whereby two entries are made in ledger accounts for each business transaction. One of these entries is known as a debit entry and the other as a credit entry.

drawings a withdrawal of assets by the proprietor of a business. Such withdrawals are usually cash, but may also be other assets (for example, stock).

footing an account an informal procedure used to determine the balance of a ledger account during the reporting period.

general ledger a collection of accounts in which double entry accounting is used to record details of financial events.

ledger account a financial record in which all details of a particular item within a business are kept.

trial balance a list of general ledger accounts with their balances. A trial balance is used to check that the total value of all debit entries made during a period equals the total value of all credit entries made in the same period.

ISBN 978 1 4202 3058 1

Summary questions

1. Explain what is involved in the process of double entry accounting.
2. Distinguish between a ledger and an account.
3. State the three parts of an entry in a ledger account.
4. Outline how the rules of debit and credit can be determined from the accounting equation.
5. State a transaction that would bring about the following changes to a firm's accounts:
   - a an increase in an asset account/an increase in a liability account
   - b an increase in an asset account/a decrease in another asset account
   - c a decrease in an asset account/a decrease in a liability account
   - d an increase in an asset account/an increase in an owner's equity account.
6. Explain how the rules of debit and credit for revenue and expense accounts can be traced back to their relationship with owner's equity.
7. Distinguish between 'footing' a ledger account and 'balancing' a ledger account.
8. What is a trial balance?
9. Describe the function of a trial balance.
10. 'If a trial balance balances, the double entry process has been done perfectly.' Do you agree? Explain your answer.
11. Put the following processes of an accounting system into the correct sequence of events:
    - income statement
    - ledger accounts
    - balance sheet
    - source documents
    - analysis chart
    - trial balance.
12. Describe the function of a 'drawings' account.
13. Under what classification does drawings appear: A, L, OE, R or E? Explain your answer.

ISBN 978 1 4202 3058 1

Practical exercises

[Exercise 4.1]

Prepare an analysis chart (A, L, OE only) showing clearly the double entries that result from the following transactions, which relate to Simson's Stationery Supplies:

- The owner contributed cash to the business.
- Purchased office furniture for cash, including GST.
- Bought computer on credit from O.K. Computer Centre, including GST.
- Borrowed money from the National Australia Bank.
- Bought stock on credit from Wholesale Stationers (plus GST).
- Made a repayment to O.K. Computer Centre.
- The owner contributed a fax machine to the business.

[Exercise 4.2]

The following transactions are from the business of Bennetts' Gift Shop. Prepare an analysis chart (all accounts) showing the double entry for each transaction.

- Paid monthly rent, plus GST.
- Bought goods for cash, plus GST.
- Issued a quote to supply a customer with giftware, including charging GST.
- Sold goods for cash, plus GST.
- Bought a fax machine on credit from Office Needs, plus GST.
- Bought stock items on credit, plus GST.
- Issued invoices to customers, including GST, for goods provided.
- Sent an order form to supplier for goods required.
- Paid a creditor amount owing for stock purchases.
- Received money from debtor for goods supplied last month.
- Paid insurance premium for year, including GST.

[Exercise 4.3]

Ben Jokic is the proprietor of B.J.'s Music Shop, a trading business that specialises in Top 40 music. He has provided the following transactions in relation to his business.

- Jokic banked $60 000 cash in a business account to start his business.
- Paid the first month's rent $9 000, plus GST of $900.
- Bought shop fittings for cash $22 000, plus $2 200 GST.
- Purchased compact discs for $14 300 on credit from Techno Music Co. (charged $1 430 GST).
- Sold compact discs that cost $4 000 for $7 400 cash, plus GST of $740.
- Paid for one month's advertising $800, plus GST of $80.
- Borrowed cash from the National Australia Bank $5 000.
- Sold compact discs on credit for $1320, including GST of $120, to D.J. Touma (cost price of sale $600).

→

ISBN 978 1 4202 3058 1

» Purchased stock for cash from Shaggy Music Company $5600, plus GST of $560.
» Repaid the National Australia Bank $2000.
» Paid wages for the first fortnight of operations $800.
» Cash sales of stock totalled $2200, including GST of $200 (cost price $1200).
» Purchased inventory from Morrison Music on credit for $3400, plus GST of $340.

Prepare an analysis chart for the above transactions, including the two double entries required when stock is sold by the business.

[Exercise 4.4]

Rose Tassone is the owner of Corporate Computers. The following transactions occurred in her first week of operations:

2015	
May 1	Tassone deposited $45000 in a separate bank account to set up the business
	Purchased office furniture on credit from Commercial Furniture for $5200, plus GST of $520
2	Bought shop fittings for cash $16500 (inc. GST of $1500) and paid the first month's rent $8000, plus $800 GST
3	Purchased stock on credit for $25000, plus GST of $2500
4	Cash sales $9000, plus GST of $900 (cost price $5000) and paid advertising of $600, plus GST of $60
	Issued an invoice for $4800, plus GST of $480, to Collingwood University for goods provided (cost price $2400)
5	Cash sales $1540, including GST of $140 (cost price $700)
6	Paid Commercial Furniture $2000 and made cash sales of $2000, plus GST of $200 (cost price $1100)
	Bought stock for cash $4000, plus GST $400

a Enter the transactions into the general ledger of Corporate Computers.

b Foot the accounts prepared in part **a**.

c Extract a trial balance from the general ledger as at 7 May 2015.

[Exercise 4.5]

The following transactions relate to the business of Betty's Boutique.

Jun 1	B. Rubble deposited $150000 to commence business
	Purchased the business premises for $720000, paying $120000 cash with the balance being financed by a loan from NAB Finance
3	Bought stock for $15000 cash, plus GST of $1500, and office equipment for $4500 cash, plus GST of $450
4	Purchased $18000 worth of stock on credit from Classic Clothes and was charged GST of $1800
5	Sold goods for cash $4200, plus GST of $420 (cost price of goods sold $1900)
6	Paid wages of $450
7	Invoiced clients for credit sales $5800 and charged them GST of $580 (cost price $2500)

ISBN 978 1 4202 3058 1

a Enter the transactions listed above into general ledger accounts and foot the accounts to determine their balances as at 7 June 2015.

b Prepare a trial balance as at 7 June 2015.

[Exercise 4.6] The following accounts appeared in the general ledger of St Albans Auto Parts, a small business owned and operated by Anthony Ravida.

Cash at bank a/c

		$			$
Jun 1	Capital	30 000	Jun 2	Fittings/GST clearing	16 500
4	Sales/GST clearing	660	3	Stock control/GST clearing	3 300

Capital—Ravida

			Jun 1	Cash at bank	30 000

Fittings a/c

Jun 2	Cash at bank	15 000			

GST clearing a/c

Jun 2	Cash at bank	1 500	Jun 4	Cash at bank	60
3	Cash at bank	300	6	Debtors	10
5	Creditors	40			

Stock control a/c

		$			$
Jun 3	Cash at bank	3 000	Jun 4	Cost of sales	300
5	Creditors	400	6	Cost of sales	60

Cost of sales a/c

Jun 4	Stock control	300			
6	Stock control	60			

Sales a/c

			Jun 4	Cash at bank	600
			6	Debtors	100

Creditors a/c

			Jun 5	Stock control/GST clearing	440

Debtors a/c

Jun 6	Sales/GST clearing	110			

State the transactions that resulted in the double entries in the above ledger accounts. Write them down in chronological order.

[Exercise 4.7]

The following errors were made in the recording of transactions in general ledger accounts:

- A debit to wages of $500 was recorded as a debit to insurance of $500.
- A $600 credit to repair fees was recorded as a debit to repair fees.
- A debit of $164 to advertising was recorded as a debit of $146 to advertising.
- A receipt of $50 interest was recorded as a debit to interest and a credit to cash at bank.
- A cash purchase of stock of $300 was not recorded in the books at all.
- $324 received from a debtor was debited to bank as $324 and credited to the debtors account as $342.
- A credit sale of goods for $200 was recorded as a cash sale. The cost of sales of $100 was recorded as a debit to stock control and a credit to cost of sales.
- A cash sale of $550, including GST of $50, was recorded as a debit to bank $550, a debit to GST clearing of $50 and a credit to sales of $500.

For each error listed, state what difference there would be in the totals of a trial balance. Explain your answer for each of the eight errors.

[Exercise 4.8]

The following documents were found in the office of Vicky's Vacs, a small business that specialises in vacuum cleaners. On 1 March 2015 the following account balances were available: cash at bank $2300, debtor—Domestic Cleaning $100, stock control $25000, creditor—Victorian Vacuum Cleaners $200, GST clearing $5000 (credit balance) and capital—Baron $22200.

VICKY'S VACS ABN 04 213 984 618 RECEIPT 101

SHOP 1
BLACK ARCADE
MELBOURNE 3000

TAX INVOICE
DATE: 2 / 3 / 15

RECEIVED FROM: M. Kingsley

THE AMOUNT OF: Four hundred & forty dollars $ 440.00

FOR: Cash sale—Hoover model BG345 GST INCLUDED $ 40.00

SIGNED: V. Baron RECEIVED WITH THANKS

VICKY'S VACS ABN 04 213 984 618 RECEIPT 102

SHOP 1
BLACK ARCADE
MELBOURNE 3000

TAX INVOICE
DATE: 7 / 3 / 15

RECEIVED FROM: M. Lazzaro

THE AMOUNT OF: Two hundred & twenty dollars $ 220.00

FOR: Cash sale—Lark Standard GST INCLUDED $ 20.00

SIGNED: V. Baron RECEIVED WITH THANKS

ISBN 978 1 4202 3058 1

HOOVER INDUSTRIES
82 QUEENS AVENUE
NORTH MELBOURNE 3051

TAX INVOICE A144

ABN 09 004 121 982

DATE: 4/3/15

TO: *VICKY'S VACS*
SHOP 1 BLACK ARCADE
MELBOURNE 3000

TERMS: 30 DAYS

Description	Qty	Unit price	Subtotal	GST	Total
Hoover WQ12 cleaners	10	$150.00	$1 500.00	$150.00	$1 650.00
Totals			$1 500.00	$150.00	$1 650.00

Total (excluding GST)	$1 500.00
Total GST payable	$150.00
Total Amount Payable (including GST)	$1 650.00

VICKY'S VACS

ABN 04 213 984 618

RECEIPT 103

SHOP 1
BLACK ARCADE
MELBOURNE 3000

TAX INVOICE
DATE: 9 / 3 / 15

RECEIVED FROM: A. Filardo

THE AMOUNT OF: Three hundred & thirty dollars $ 330.00

FOR: Cash sale—Lark Deluxe GST INCLUDED $ 30.00

SIGNED: V. Baron

RECEIVED WITH THANKS

DATE: 12 / 3 / 15
BAL. B/F
THIS CHQ. $ 165
FOR: ADVERTISING $ 150
PLUS GST $ 15
BAL.
CHQ. NO. 9145

DATE: 13 / 3 / 15
BAL. B/F
THIS CHQ. $ 200
FOR: WAGES $ 200
BAL.
CHQ. NO. 9146

ISBN 978 1 4202 3058 1

VICKY'S VACS
SHOP 1
BLACK ARCADE
MELBOURNE 3000

ABN 04 213 984 618

RECEIPT 104

TAX INVOICE
DATE: 16 / 3 / 15

RECEIVED FROM: T. Ha

THE AMOUNT OF: Three hundred & thirty dollars $ 330.00

FOR: Cash sale—Hoover model WQ12 GST INCLUDED $ 30.00

SIGNED: V. Baron RECEIVED WITH THANKS

VICKY'S VACS
SHOP 1
BLACK ARCADE
MELBOURNE 3000

ABN 04 213 984 618

RECEIPT 105

TAX INVOICE
DATE: 19 / 3 / 15

RECEIVED FROM: A. Erkihun

THE AMOUNT OF: Four hundred & forty dollars $ 440.00

FOR: Cash sale—Hoover model BG345 GST INCLUDED $ 40.00

SIGNED: V. Baron RECEIVED WITH THANKS

VICKY'S VACS
SHOP 1 BLACK ARCADE
MELBOURNE 3000

TAX INVOICE 432

ABN 04 213 984 618

DATE: 21/3/15

TO: HINTON HOTEL
4999 FLINDERS STREET
MELBOURNE 3000

TERMS: 30 DAYS

Description	Qty	Unit price	Subtotal	GST	Total
Hoover WQ12 cleaners	6	$300.00	$1 800.00	$180.00	$1 980.00
Totals			$1 800.00	$180.00	$1 980.00

Total (excluding GST)	$1 800.00
Total GST payable	$180.00
Total Amount Payable (including GST)	$1 980.00

ISBN 978 1 4202 3058 1

DATE: 23 / 3 / 15		
BAL. B/F		
THIS CHQ.	$	66
FOR: STATIONERY	$	60
PLUS GST	$	6
BAL.		
CHQ. NO. 9147		

DATE: 26 / 3 / 15		
BAL. B/F		
THIS CHQ.	$	150
FOR: WAGES	$	150
BAL.		
CHQ. NO. 9148		

ADDITIONAL INFORMATION:

It is management's policy to double the cost price of all stock items in order to determine selling prices. Therefore, an item that sells for $300 has a cost price of $150.

a Using the source documents provided above, enter the transactions relating to Vicky's Vacs in general ledger accounts (after entering the opening balances).

b Prepare a trial balance as at 31 March 2015.

[Exercise 4.9]

Lovejoy's Hardware has been operating as a small business for a number of years. On 1 July 2015 the following assets and liabilities were in existence:

Assets	*$*	*Liabilities*	*$*
Cash at bank	4 000	Creditors	1 000
Debtor—Flanders	1 300	Loan from bank	12 000
Stock control	26 000	GST clearing	2 000
Shop fittings	25 000	Owner's equity	
		Capital—Lovejoy	?

During July 2015 the following transactions occurred:

Jul 2	Purchased stock on credit $1 700, plus GST $170
3	Paid insurance $50, plus GST $5 (for one month)
4	Received from cash clients $880, including $80 GST (cost of sales $350)
5	Paid monthly loan repayment $500
6	Received $600 from debtor Flanders
9	Cash sales $750, plus GST $75 (cost of sales $350)
10	Paid $100 for stationery, plus GST $10
11	Purchased new computer for $1 650 cash (including GST of $150)
12	Lovejoy withdrew $100 for personal use
13	Received $1 100 from cash sales, including GST of $100 (cost price of sales $500)
14	Paid fortnight's wages $650
16	Paid creditors for stock purchases from last month $600
	Sold goods for cash for $550, including GST of $50 (cost price $300).
	Cash sales of goods $1 200, plus GST $120 (cost $450)
19	Paid advertising account $180, plus GST of $18
20	Received $660 from cash client, including GST of $60 (cost of sale $300)
23	Sent out a quote for tools for $1 990 to Lunar Homes (including GST)
	Received $530 from cash customer, plus GST (cost price $160) and invoiced J. Flanders for $550 for another credit sale, including GST (cost of sale $270)
28	Paid fortnight's wages $650
30	Banked cash sales of $1 880, plus GST of $188 (cost of sales $1 030)

a Calculate Lovejoy's capital figure as at 1 July 2015 and enter the opening balances into ledger accounts.

b Enter the above transactions into the general ledger of Lovejoy's Hardware.

c Formally balance the ledger accounts and extract a trial balance as at 31 July 2015.

d Prepare an income statement for the month ended 31 July 2015.

e Prepare a classified balance sheet as at 31 July 2015.

[Exercise 4.10]

Harvey's Electricals had the following account balances in its general ledger on 1 August 2015:

	$		$
Cash at bank	1 200	Creditor—Oz Electricals	2 750
Debtor—J. Beam	300	Loan—Nissan Finance	15 000
Stock control	43 800	GST clearing	3 000
Vehicle	38 000	Capital—Harvey	62 550

ISBN 978 1 4202 3058 1

During August 2015 the following transactions occurred:

Aug 2	Cash sales $3 200, plus GST of $320 (cost of sales $1 500)
3	Purchased goods on credit from Oz Electricals $5 400, plus GST
4	Paid for petrol $165, including GST
5	Paid advertising account with local newspaper $140, plus GST of $14
8	Received from cash clients $2 860, including GST of $260 (cost of sales $1 400)
	The proprietor withdrew $300 cash from the business
10	Invoiced J. Walker $385 for credit sales, including GST of $35 (cost prices $170)
11	Insurance premium paid on vehicle $480, plus GST of $48 (for one year's insurance)
12	J. Beam paid $300 on account
	Paid for petrol $110, including GST of $10
13	Purchased stationery for cash $70, plus GST
16	Paid Oz Electricals $1 500
17	Arranged with the bank an overdraft limit of $10 000
18	Received from cash customers $2 800, plus GST of $280 (cost price $1 500)
19	Wrote a cheque for petrol $121, including $11 GST
20	Stock bought for cash $1 800, plus $180 GST
23	Cash clients paid a total of $1 980, including GST of $180 (cost of sales $950)
24	Loan repayment made to Nissan Finance $250
25	Paid for petrol $99, including GST
26	J. Walker paid $100
29	M. Harvey withdrew cash for personal use $400
30	Submitted a quote to supply two fridges to Altona South Primary School (selling price $1 200 + $120 GST each, cost price $700 each)

a Enter the opening balances into the appropriate general ledger accounts.

b Enter the above transactions into the general ledger.

c Formally balance the ledger accounts and extract a trial balance as at 31 August 2015.

d Prepare an income statement for the month ended 31 August 2015.

e Prepare a classified balance sheet as at 31 August 2015.

ISBN 978 1 4202 3058 1

CASE STUDY

JACK WALSH is the owner of Walsh's Outdoor Store, a small business that specialises in tents and camping equipment. Walsh studied accounting at secondary school, and he has produced the following trial balance at the end of the firm's reporting period:

Jack's Outdoor Store: trial balance as at 31 March 2015

	$		$
Advertising	1 440	Capital	59 860
Cash at bank	5 290	Cash sales	86 340
Commission revenue	1 540	Creditors	3 360
Cost of sales	62 000	Credit sales	35 400
Drawings	10 800	Debtors	2 500
Insurance	2 300	GST clearing	4 000
Interest on loan	3 890	Loan from bank	21 000
Office equipment	9 800		
Postage	1 020		
Rent of premises	46 200		
Security expenses	1 320		
Shop fittings	12 400		
Stock control	25 400		
Telephone	2 840		
Wages	24 300		
	210 540		
Miscellaneous expenses	1 920		
	212 460		212 460

Walsh had some difficulty getting his trial balance to balance. His investigations into the accounts of the business revealed the following information:

- A credit sale of $3740, with GST of $374, was recorded as $3470 and GST of $347. The cost price of the sale was $1 700 and this was recorded as a debit to stock control and a credit to cost of sales.
- A cash payment of $640 (plus GST of $64) for advertising was completely omitted from the ledger accounts of the business.
- Walsh paid $540 insurance on his family home and made the payment using the cheque book of the business. As it was paid from the firm's bank account, this payment was included in the insurance account shown in the trial balance.
- A payment of a telephone bill of $440 (including $40 GST) had been accidentally debited to the Wages account. (GST was recorded accurately.)
- Walsh withdrew $500 cash from the business in March 2015. Unfortunately, this has been recorded as a withdrawal of inventory.
- A receipt of $200 from a debtor was recorded as a cash payment to a creditor.
- A cash sale of $900 was recorded as a credit sale of $900. The cost of this sale was recorded correctly, as was the GST.

→

- Walsh is not certain that he has sorted all of the accounts correctly in the trial balance. He has asked that this be checked, as he thinks some accounts may be listed on the wrong side of the report.
- As Walsh could not get the trial balance to balance, he created the item 'Miscellaneous expenses $1 920' so that his trial balance was in balance. No such expense had been paid during the reporting period.

1 Walsh has breached some accounting principles and/or failed to ensure that his accounting information has the qualitative characteristics as outlined in SAC2. State, and explain, the qualities and/or principles that have been breached, giving details of the items affected by such breaches.

2 Redraft the entire trial balance for Walsh's business, taking into account the information provided. Your redrafted trial balance should be accurate as at 31 March 2015.

Chapter 5

Special journals: cash transactions

OBJECTIVES

At the completion of this chapter, you should be able to:

- outline the need for special journals
- describe the role of special journals
- state the most common types of special journals
- outline the function of each special journal
- describe the function of a cash receipts journal
- prepare entries in multi-column cash receipts journals, including GST transactions
- post summarised data from a cash receipts journal to ledger accounts
- describe the function of a cash payments journal
- prepare entries in multi-column cash payments journals, including GST transactions
- post summarised data from a cash payments journal to ledger accounts
- design cash journals for a variety of small businesses
- modify cash journals to account for discount expense and discount revenue.

ISBN 978 1 4202 3058 1

5.1 The need for special journals

The rules of double entry accounting in ledger accounts were introduced in chapter 4. Transactions were posted directly into the ledger accounts and balances could be extracted for final reports. However, two problems result from such recording procedures. First, there is no permanent record of references to source documents, as this information is not shown in ledger accounts. The second problem is that some of the ledger accounts tend to get clogged up with detail because they contain many transactions. The worst example of this is the cash at bank account. There may be hundreds of receipts and/or payments on any single day and the bank account will quickly become very cumbersome. Therefore there is a need to summarise transactions in some way to remove some of the bulky detail from the ledger accounts.

Usually an accounting system uses **journals** to record the daily details of transactions, including references to source documents. This raw data is then **posted** (or transferred) in summarised form to ledger accounts. This process is represented in figure 5.1.

Figure 5.1 From documents to ledger accounts

SOURCE DOCUMENTS (raw data) → JOURNALS (daily records) → LEDGER ACCOUNTS (summarised information)

The journals a firm uses will depend on the individual business. Some firms have one journal only, which is known as the general journal. This is often used in computerised systems. With a computerised system the only details required are the account to be debited, the account to be credited, the amount of the transaction and a document number. The computer does all the record keeping and produces the reports for the user of the system. The actual recording of transactions in journals and ledgers is done virtually automatically. Such systems will not be emphasised in this chapter, as it is important to be able to record a variety of transactions in several types of journals. The general journal still has an important role to play and this will be covered in chapter 7.

5.2 The role of special journals

Journals provide the first form of classification in a double entry accounting system. **Special journals** are used to group together transactions of a similar nature to make posting to the ledger accounts easier. These journals gather together data from business documents on a daily basis. The gathered information is then posted to ledger accounts on a periodical basis. The following special journals are often used by small business:

1. **Cash receipts journal:** this journal records all types of cash receipts by a business. If a cash inflow has occurred, the transaction should be recorded in the cash receipts journal. Receipts may include such items as cash sales, amounts collected from debtors, cash contributed by the owner (capital) and interest on investments. The source document used is usually a copy of a receipt issued by the firm to the customer.
2. **Cash payments journal:** the cash payments journal is used to record all payments of cash by a firm. If a cash outflow has occurred, it should be recorded in the cash payments journal. Payments may include such items as expenses paid, assets bought for cash, cash purchases of goods (that is, stock), payments of amounts owing to creditors, repayments of loans and withdrawals of cash by the owner. The source document used for entries in the payments journal is a cheque butt, which is a copy of the details of the actual cheque.

ISBN 978 1 4202 3058 1

3 **Credit sales journal:** this journal is only used if the business provides goods to its customers on credit. The document used to provide evidence of such a transaction is an invoice. The original is issued to the customer and a copy retained for accounting purposes. This journal is covered in detail in chapter 6.

4 **Credit purchases journal:** the credit purchases journal is used by a trading firm only if the business buys its stock on credit. It may also be used by a service firm if it buys materials or supplies on credit. The source document used is an invoice and in this case an original document will be used, as the supplier issues it to the firm buying the goods. The purchases journal is covered in detail in chapter 6.

The **general journal** is not recognised as a special journal, but its role in a manual system needs to be mentioned at this stage. If a transaction does not fit into any of the groups of transactions outlined in the special journals, it has to be recorded in the general journal. As the special journals cater for the most common and most frequently occurring transactions, the general journal will record the more unusual events. For example, the purchase of a non-current asset on credit does not fit into any of the special journals and therefore would be recorded in the general journal. A full description of the general journal appears in chapter 7.

5.3 Recording in the cash receipts journal

As mentioned above, the cash receipts journal is used to record all inflows of cash to a firm. The design of a cash receipts journal can be quite simple, with only the bare minimum of information being recorded. Alternatively, the cash receipts journal can be a multi-column record showing summarised information for a variety of receipts. The multi-column format is demonstrated in this text and is based on the layout used in the VCE examinations.

Cash receipts journal

In order to demonstrate the workings of a cash receipts journal, the business of General Sports will be used as an example. This firm sells a range of sporting goods. The following receipts occurred during the month of January 2015:

Jan 2	Received $60, plus GST of $6, from P. Houlihan for tracksuit top (cost price $30) (Rec. no. 651)
5	Collected $80 from D. Barr (debtor) for goods supplied in December (Rec. 652)
6	The proprietor put $5 000 into the business (Rec. 653)
10	Cash sale to M. Naughton: $100, plus $10 GST for tennis racquet (cost price $60, Rec. 654)
12	Received $66 (inc. GST $6) from T. Zavatierro for one soccer ball (cost $30, Rec. 655)
14	Cash received for sales: M. Roberts (Rec. 656) $120 + $12 GST for tracksuit (cost price $70)
	G. Caine (Rec. 657) $110 (inc. $10 GST) for training jacket (cost price $60)
17	Received $200 from debtor—Ashworth on account (Rec. 658)
20	Cash sale $140 + GST of $14 for two footballs to G. Brown (Rec. 659)—cost price of sale $70
21	Interest received on investment account $143
24	Received from L. Chan $99 (inc. GST of $9) for tracksuit—cost price $50 (Rec. 660)
28	Collected $100 from debtor—D. Barr (Rec. 661)

Opening balances:

Debtor—Barr	$180
Debtor—Ashworth	$200
Stock control	$20 000

ISBN 978 1 4202 3058 1

The above transactions can be recorded in a simple cash receipts journal, as shown in figure 5.2.

Figure 5.2 Cash receipts journal

General Sports: Cash Receipts Journal for January 2015

Date	Details	Rec. No.	Bank $	Debtors $	Cost of sales $	Sales $	Sundries $	GST rec'd $
Jan 2	Cash sales	651	66		30	60		6
5	D. Barr	652	80	80				
6	Capital	653	5 000				5 000	
10	Cash sales	654	110		60	100		10
12	Cash sales	655	66		30	60		6
14	Cash sales	656	132		70	120		12
14	Cash sales	657	110		60	100		10
17	P. Ashworth	658	200	200				
20	Cash sales	659	154		70	140		14
21	Interest on investments	–	143				143	
24	Cash sales	660	99		50	90		9
28	D. Barr	661	100	100				
31	Total receipts		6 260	380	370	670	5 143	67

Notes to figure 5.2:

1 The name of the account affected by the transaction is listed in the details column. As a cash receipt will always result in the bank account being debited, the account to be credited will be stated in the details column.

2 The customer's name is not usually recorded in a cash journal unless it involves a debtor's account. When goods are provided on a cash basis the name is not usually recorded. Therefore, the entry is simply cash sales. When a debtor pays off an amount owing, the name of the debtor should be stated in the details column and the amount recorded in the debtors column.

3 The receipt numbers should run in sequence because the business itself issues these documents. This helps to ensure that all receipts are accounted for in the journal and that there are no missing transactions.

4 The bank column is used to tally up the total receipts for the period's trading. This also provides a checking system to ensure that all receipts are deposited with the firm's bank. The entries in this column can be ticked off with the deposits listed on a bank statement when it is received from the bank at a later date.

5 The debtors column is used to record all receipts from debtors as a result of credit sales made previously. Note that GST is not recorded in the cash receipts journal at this time, as the GST would have been recorded when the credit sale was actually made (refer chapter 6).

6 The cost of sales column is used to record the cost price of all cash sales made through the period.

7 The sales column records the selling price of goods sold for cash, with the GST collected being recorded in the column immediately to its right. This may be easily checked for accuracy, as the total of sales and GST should equal the amount recorded in the bank column.

8 The sundries column is used to record any unusual or infrequent transaction that is not catered for in the other specialised columns. In the above example, two items have been recorded as sundries (capital and interest revenue), as these items would not be expected to occur on a regular basis.

9 The last column, the GST column, is used to record the amounts of GST received by the business when a cash sale is made. It will always be 10 per cent of the selling price charged to the customer.

Note: If a trading firm uses cash register receipts for the cash sales received, the notation 'CRS' may be used in the receipt number column to indicate a cash register summary. This may be the case in a small business that has many cash receipts during a day's trading and does not issue formal, individual receipts with pre-printed document numbers.

A cross check may be made of the entries in a cash receipts journal to ensure that recording errors have not been made. To perform such a cross check, the cost of sales column must be ignored, as this column does not record a receipt of cash. The totals of the other columns are then simply added across the bottom of the journal and this sum should equal the total of the bank column. In the above example, the cross check would be:

Bank	should equal	Debtors	+	Sales	+	Sundries	+	GST
Thus 6 260	=	380	+	670	+	5 143	+	67

Such a cross check should be performed in a manually prepared record before the posting of totals is done to the general ledger. This will prevent recording errors being transferred to the general ledger and will help ensure that accurate records are maintained.

Having set up a cash receipts journal, the next step is to post the information to the general ledger. The above journal would result in the entries in the firm's ledger accounts, as shown in figure 5.3.

The major benefit of using the cash receipts journal in the above example is the number of entries made in the accounts in the general ledger. If transactions were entered straight into ledger accounts, there would be numerous entries made in the accounts shown on the next page. As the journal records all the daily details, a summary of the receipts can be posted as one total for the month. This one debit to cash at bank represents the total cash received for the period. The credit entries have been made to the various accounts affected by the receipts (cash sales, debtors, capital and interest) and therefore the total debit made to cash at bank is equal to the total credit entries made to the other accounts.

Note: when posting from a special journal to general ledger accounts, the end-of-period date is used for all entries. The journal shown previously has all details for the month and these details have then been transferred to ledger accounts on the last day of that particular month. Thus, in the ledger accounts all entries have been recorded on 31 January.

Special reference should also be made to the cost of sales column in the cash receipts journal. This column records the cost price of goods sold and does not represent a cash flow. The total of this column has been posted as one debit to the cost of sales account (expense) and as one credit to the stock control account (asset). As the stock control account must be updated with all movements of inventory, the cost prices can simply be recorded in the journal as goods are sold during the period. The posting of this total is then quite a simple process. As with all other transactions that have been recorded in the cash receipts journal, the significant benefit of using this column is that the data is summarised into one figure to be entered into the ledger accounts. This removes bulky detail from the general ledger and streamlines the accounts so that they are much easier to comprehend.

Some business owners may decide to modify their receipts journal to provide additional information about their sales. For example, many retail outlets subdivide their sales column into

ISBN 978 1 4202 3058 1

Figure 5.3 General ledger entries posted from cash receipts journal

Cash sales a/c

		$			$
			Jan 31	Cash at bank	670

Interest on investments a/c

			Jan 31	Cash at bank	143

Cost of sales a/c

Jan 31	Stock control	370			

Cash at bank a/c

Jan 31	Cash receipts	6 260			

Debtor—Barr a/c

Jan 1	Balance	180	Jan 31	Cash at bank	80
				Cash at bank	100

Debtor—Ashworth a/c

Jan 1	Balance	200	Jan 31	Cash at bank	200

Stock control a/c

Jan 1	Balance	20 000	Jan 31	Cost of sales	370

GST clearing a/c

			Jan 31	Cash at bank	67

Capital a/c

			Jan 31	Cash at bank	5 000

various categories. In the case of General Sports, the original transaction data shows that they sell both sporting equipment and sports clothing. Management may require information about the various categories of sales and therefore the receipts journal may be further subdivided for such a purpose. As is the case with all accounting records, the design of the cash receipts journal should be in response to the needs of the individual business. The columns used should be a reflection of the regular transactions that the owner expects to occur. A sundries column should always be part of a receipts journal to accommodate the unusual events that do not fit the special columns already listed.

Thus, the cash receipts journal supplies all the detailed information regarding transactions that create inflows of cash. As there is no need to reproduce such information in the general ledger, the ledger accounts virtually become a summarised version of these events. The more times an item occurs in a given period, the greater is the benefit of having a special column. The benefits demonstrated for the multi-column cash receipts journal will also be examined for the cash payments journal, which is introduced below.

ISBN 978 1 4202 3058 1

5.4 Recording in the cash payments journal

The cash payments journal is used to record all outflows of cash. As was the case with the receipts journal, the cash payments journal should be designed to meet the needs of the individual business. Therefore, this journal may also be quite a simple design or be based on a multi-column format. The firm of General Sports will again be used as an example. The cash payments for the month of January 2015 are listed below:

Jan 3	Bought goods for cash (Cheque no. 901) $500, plus GST of $50
4	The owner withdrew $200 cash (Chq. 902)
5	Bought stock for $400, plus $40 GST (Chq. 903)
6	Paid weekly wages $200 (Chq. 904)
9	Paid advertising $280, plus $28 GST (Chq. 905)
11	Paid insurance (Chq. 906) $500, plus $50 GST
12	Sent cheque no. 907 for $140 to Creditor—Top Sports
13	Paid weekly wages $200 (Chq. 908)
16	Bought stock for cash $440, including $40 GST (Chq. 909)
19	The proprietor withdrew $250 cash (Chq. 910)
20	Paid weekly wages $200 (Chq. 911)
24	Paid advertising $280, plus $28 GST (Chq. 912)
27	Paid weekly wages $200 (Chq. 913)
28	$300 was withdrawn by the proprietor (Chq. 914)
31	Paid creditor—KS Sports $254 (Chq. 915)

To record the above transactions, a cash payments journal may be designed as shown in figure 5.4.

Notes to figure 5.4:

1 The name of the account affected by the cash payment is listed in the details column. This mirrors the method used in the cash receipts journal, except that all items in this case represent cash outflows, rather than inflows.

2 Cheque numbers should always run in sequence to enable missing cheques to be easily identified. Any cheques that have been cancelled should be noted as such so that it doesn't look as if they have been misplaced or stolen.

3 Special columns have been provided for payments that the owner expects to be regular. Therefore stock control, advertising, wages, drawings and GST each have a dedicated column, as these payments would usually occur frequently.

4 The Sundries column should always be included in a cash payments journal to account for infrequent items, such as the insurance payment on 11 January.

5 The GST column is used to record GST payments on cash transactions. Note, however, that not all payments attract GST. For example, in the following journal items such as wages and drawings do not attract GST.

The cash payments journal demonstrated in figure 5.4 would be posted to the general ledger as shown in figure 5.5. Opening balances of creditors' accounts were as follows: Top Sports $140, KS Sports $254.

ISBN 978 1 4202 3058 1

Figure 5.4 Cash payments journal

General Sports: Cash Payments Journal for January 2015

Date	Details	Chq no.	Bank $	Creditors $	Stock control $	Advert. $	Wages $	Draw. $	Sundries $	GST paid $
Jan 3	Stock control	901	550		500					50
4	Drawings	902	200					200		
5	Stock control	903	440		400					40
6	Wages	904	200				200			
9	Advertising	905	308			280				28
11	Insurance	906	550						500	50
12	Top Sports	907	140	140						
13	Wages	908	200				200			
16	Stock control	909	440		400					40
19	Drawings	910	250					250		
20	Wages	911	200				200			
24	Advertising	912	308			280				28
27	Wages	913	200				200			
28	Drawings	914	300					300		
31	KS Sports	915	254	254						
31	Total payments		4 540	394	1 300	560	800	750	500	236

Figure 5.5 General ledger entries posted from cash payments journal

Advertising a/c

		$			$
Jan 31	Cash at bank	560			

Wages a/c

Jan 31	Cash at bank	800			

Insurance a/c

Jan 31	Cash at bank	500			

Cash at bank a/c

			Jan 31	Cash payments	4 540

Stock control a/c

Jan 31	Cash at bank	1 300			

GST clearing a/c

Jan 31	Cash at bank	236			

continued

ISBN 978 1 4202 3058 1

Creditor—Top Sports a/c

		$			$
Jan 31	Cash at bank	140	Jan 1	Balance	140

Creditor—KS Sports a/c

Jan 31	Cash at bank	254	Jan 1	Balance	254

Drawings a/c

Jan 31	Cash at bank	750			

The double entry for cash payments is quite evident in the ledger accounts in figure 5.5. The one credit to the cash at bank account is matched with a series of debits in the other accounts. Once again, the general ledger is streamlined because much of the detail has been recorded in the cash payments journal.

The columns used in a **multi-column** cash payments journal tend to vary much more than those in the receipts journal. The headings used in figure 5.4 have been created because of the expectation that such items will occur more than once during a month-long period. Although a sundries column must be used for unusual or infrequent cash outflows, it is important to keep in mind that a sundries ledger account is not used, as this would not provide any details of the various transactions in the general ledger accounts. Any payment listed in the Sundries column must be posted individually to the appropriate ledger account. As was the case with the cash receipts journal, the entries posted to general ledger accounts from the payments journal have all been recorded on the last day of the month (31 January).

A cross check can also be performed on the cash payments journal to ensure that no recording errors have been made before posting is completed. In the payments journal prepared above, the bank column should be checked against the totals shown in the columns for creditors, stock, advertising, wages, drawings, sundries and GST. Therefore:

Bank = Totals from all other columns

4540 = 394 + 1300 + 560 + 800 + 750 + 500 + 236

The benefit of posting totals from cash journals is most significant when the cash at bank account is considered. By using the two cash journals demonstrated in this chapter, the cash at bank account will contain only two entries: one for total receipts and one for total payments. The final result from these postings is shown below:

Cash at bank a/c

		$			$
Jan 31	Cash receipts	6260	Jan 31	Cash payments	4540

The benefits of using multi-column cash journals increase in line with the volume of cash transactions experienced by the firm. Therefore, a firm that has hundreds or thousands of cash transactions derives the greatest benefit, as the totals posted to the ledger would be replacing many individual double entries.

ISBN 978 1 4202 3058 1

5.5 Recording cash discounts for debtors and creditors

When goods are purchased on credit, the credit terms of the transaction are usually stated on the invoice issued by the supplier. Similarly, when a credit sale is made, the invoice issued to the customer should also state very clearly that there is a specified time allowed for the debtor to settle the account. The most common credit term used is 30 days, but it may be 7 or 14 days or, in some cases, extended to 60 days. The terms may be stated simply; for example, 'Credit terms: strictly 30 days'. However, on some invoices the terms are stated in the form of a notation such as '2/7: n/30'. This indicates that a 2% discount is available as a cash discount if the invoice is settled within 7 days. If the customer does not take advantage of this cash discount period, the net amount is due for payment within 30 days. That is, the credit terms are 30 days but the customer is encouraged to pay within 7 days by the offer of a cash discount. Credit customers are often offered a cash discount as an incentive for early payment because:

- If debtors pay early the likelihood of bad debts is reduced.
- The early receipt of cash allows a business to pay for inventory purchases at an earlier time, thus taking advantage of any cash discounts available from suppliers.
- It helps a business reduce the time taken by debtors to settle their accounts, thus improving the firm's liquidity.
- Cash received earlier may be used to reduce other debts of the business.

Discount expense and the cash receipts journal

In order to record cash discounts, the cash journals of a business need to be modified slightly. If a business is already using special columns for debtors and creditors, the only adjustment required is to add a column for **discount expense** in the cash receipts journal and a **discount revenue** column in the cash payments journal. Consider the cash receipts journal prepared in figure 5.6.

Figure 5.6 Cash receipts journal with discount expense column

Date	Details	Rec. no.	Bank $	Discount expense $	Debtors $	Cost of sales $	Sales $	Sundries $	GST rec'd $
Oct 1	Cash sales	CRS	220			100	200		20
2	J. Ong	435	195	5	200				
3	M. Long	436	390	10	400				
4	Cash sales	CRS	660			320	600		60
5	C. Tong	437	585	15	600				
6	Cash sales	CRS	550			260	500		50
7	Cash sales	CRS	550			250	500		50
7	Totals		3 150	30	1 200	930	1 800		180

Notes relating to the discount expense granted to debtors:

1 **Discount expense/debtors:** these two columns work hand-in-hand and are only used in reference to receipts from debtors. All receipts from credit customers should be recorded separately from the cash sales of the business. If a debtor pays promptly (for example, within

ISBN 978 1 4202 3058 1

30 days) a discount may also be allowed to that debtor. In figure 5.6 the debtor J. Ong owed this business $200. As the debtor has paid promptly, a discount of $5 has been deducted from the amount owing. Therefore $200 is recorded in the Debtors column, as this is the total amount being deducted from the customer's account. The discount expense (in this case $5) is stated in the discount column. The net amount actually received ($195) is then shown in the bank column, as this is the actual amount of cash received. Similarly, the other two debtors have also been allowed a cash discount. Long owed $400, but has actually paid $390 after a $10 discount has been allowed. This business must allow a discount of 2.5% for early payments, as each of the three debtors has been allowed this amount (for example, for Long 2.5% of $400 = $10 discount expense).

2 **When checking for errors in the above cash receipts journal** the columns should be added as follows: Debtors + sales (SP) + GST – discounts allowed = cash received (the bank column). Using figure 5.6 the values are: $1 200 + $1 800 + $180 – $30 = $3 150. It is important to remember to deduct the discount expense, as this does not represent cash received. Also, the cost prices of cash sales should be ignored, as they too do not represent a cash flow to the business. A check of the totals of the individual columns against the total of the bank column will pick up many recording errors made in the cash receipts journal.

When posting a cash receipts journal to the Debtors account, there are two acceptable methods of recording cash received with a discount expense. To demonstrate these two approaches the receipt of $390 from M. Long (with $10 discount expense), as recorded in figure 5.6, will be used as an example. The debtor—M. Long account had a debit balance of $400 on 1 October. When the receipt of $390 takes place the account must be credited as shown below.

Debtor—M. Long a/c

		$			$
Oct 1	Balance	400	Oct 31	Bank/discount expense	400

or

Debtor—M. Long a/c

Oct 1	Balance	400	Oct 31	Cash at bank	390
				Discount expense	10

It does not matter which method is used, as the overall effect on the account using both approaches is a reduction of $400. If for any reason the amount of discount granted to the customer needs to be checked, this information can always be retrieved from the detailed entry in the cash receipts journal.

Discount revenue and the cash payments journal

If cash discounts are likely to be received from a firm's suppliers, the cash payments journal should also be modified to allow for such transactions. In relation to inventory, a distinction should be made between cash purchases of stock and cash payments relating to previous credit purchases of stock. Therefore, a separate column for creditors should be used and an adjacent column for any discounts received could then be added similar to that used for discount expense in the receipts journal. Figure 5.7 is an example of a typical cash payments journal used by a trading firm, with an additional column for discount revenue.

ISBN 978 1 4202 3058 1

Figure 5.7 Cash payments journal with Discount Revenue column

Date	Details	Chq. no.	Bank $	Discount revenue $	Creditors $	Stock control $	Draw. $	Sundries $	GST paid $
Oct 1	Stock control	101	880			800			80
2	Loan r/p	102	500					500	
3	SKC P/L	103	380	20	400				
4	Nader Co.	104	390	10	400				
5	Stock control	105	990			900			90
6	Drawings	106	1 000				1 000		
7	J.B. & Sons	907	190	10	200				
	Totals		4 330	40	1 000	1 700	1 000	500	170

Notes relating to the discount revenue recorded from creditors:

1 **Discount revenue/creditors:** just as a discount may be allowed to debtors for prompt payment of debts, it is also possible that the business may receive a discount from creditors. The example in figure 5.7 shows a payment of $380 to a creditor named SKC Pty Ltd, with the firm receiving a discount of $20. It should be kept in mind that this payment relates to a credit transaction that occurred at an earlier date and does not relate to a cash purchase of goods. In this case the business owed SKC $400, but due to a 5% cash discount (5% of $400 = $20) being granted, the actual amount of cash paid was $380. Therefore, the total reduction in the creditor's account ($400) is recorded in the creditors column, with the discount of $20 being recorded in the discount revenue column.

2 **When checking for errors in the above cash payments journal** the columns should be added as follows: creditors + stock control + drawings + sundry payments + GST – discount revenue = the bank column. Using figure 5.7 the values are: $1 000 + $1 700 + $1 000 + $500 + $170 – $40 = $4 330. It is important to remember to deduct the discount revenue, as it does not represent cash paid. In this way recording errors may be picked up, because the totals of the individual columns should always equal the total of the bank column.

When posting a cash payments journal to the creditors' accounts, there are also two acceptable methods of recording cash paid with a discount revenue. To demonstrate these two approaches, the payment of $190 to J.B. & Sons (with a $10 discount), as recorded in figure 5.7, will be used as an example. The creditor—J.B. & Sons account had a credit balance of $200 on 1 October. When the payment of $190 takes place the account must be debited, as shown below.

J.B. & Sons a/c

		$			$
Oct 31	Bank/discount revenue	200	Oct 1	Balance	200

or

J.B. & Sons a/c

Oct 31	Cash at bank	190	Oct 1	Balance	200
	Discount revenue	10			

Just as was the case with the debtors account, it does not matter which method is used, as the overall effect on the account using both approaches is a reduction of $200. The value of discount revenue can be checked at any time from the entries in the cash payments journal and therefore the first method is quite acceptable.

› GLOSSARY OF TERMS

cash payments journal a daily record used to note details of all payments of cash, regardless of the purpose of the cash outflow.

cash receipts journal a daily record used to note details of all receipts of cash, regardless of the source of the cash flow.

discount expense a reduction in the amount due from a debtor, due to a prompt payment being received within a specified period of time.

discount revenue a reduction in the amount due to a creditor, due to a prompt payment being made within a specified period of time.

general journal a record used to note unusual financial events that cannot be recorded in any of the four special journals.

journal a record used to note the details of transactions from business documents. Journals are also known as 'books of originating entry' as they are the starting point of a double entry recording system.

multi-column journal a journal specifically designed to cater to the needs of a particular business, with special columns being used for transactions of a recurring nature.

posting the process of transferring financial information from journals to ledger accounts.

purchases journal (or **credit purchases journal**) a daily record used to note details of credit purchases of inventory items.

sales journal (or **credit sales journal**) a daily record used to note details of credit sales of inventory items.

special journal a record used to note details of a particular type of financial event that is expected to occur on a frequent basis, such as cash payments or credit sales.

Summary questions

1. Describe the role that journals play in the overall process of getting the raw data of financial transactions into ledger accounts.
2. a State the four special journals commonly used by small businesses.
   b Outline the function of each of the special journals you listed in part a above.
   c State the source document used for each of the journals listed in a above and state whether it would be an original document or a copy.
3. Explain the purpose of the general journal for a business that uses special journals.
4. State three examples of receipts that may be found in the cash receipts journal of a small business.
5. The document numbers in a receipts journal should always run in sequence. Explain why this is so.
6. A cash receipts journal may contain a column headed 'cost of sales'. Outline the purpose of this column.
7. Describe the function of the sundries column in a cash receipts journal.

ISBN 978 1 4202 3058 1

8. Describe four different types of transactions that may be found in the cash payments journal of a small business.

9. On what basis should the special columns in a cash payments journal be selected? Explain your answer using examples.

10. 'The columns used in a multi-column cash payments journal are basically the same for all businesses.' Do you agree? Give reasons for your answer.

11. Distinguish between the procedures involved in posting information from a special column and posting from the Sundries column in a multi-column cash payments journal.

12. Describe the benefits achieved by a firm through the introduction of multi-column cash journals.

13. The following notation appeared on an invoice received from a supplier: 5/7: 2/30: n/60. Explain the meaning of each of these three items.

14. A firm received a cheque for $290 in full settlement of a debtor's account that has a balance of $298. In a multi-column cash receipts journal, how much should be recorded in:
    - **a** the bank column
    - **b** the discount expense column
    - **c** the debtors column?

15. A business has just sent a cheque for $538 to a creditor who has agreed to accept the payment for settlement of a $550 account. In a multi-column cash payments journal, how much should be reported in:
    - **a** the bank column
    - **b** the discount revenue column
    - **c** the creditors column?

Practical exercises

[Exercise 5.1]

The following transactions relate to the business of Patto's Electricals:

2015	
Feb 1	Received $600 from a cash sale, plus GST of $60, cost price $300 (Rec. 245)
2	Issued receipt 246 to debtor—T. Wisdom for $200 paid on account
3	Cash sale of $800, plus $80 GST (cost price $400) (Rec. 247)
4	Interest received on investment account $150
5	Cash sales to F. Plate $490, plus $49 GST (Rec. 248) and I. Brace $550, including $50 GST (Rec. 249)—cost of sales $220 and $260 respectively
6	Borrowed $10 000 cash from the National Australia Bank

a Enter the above transactions into the cash receipts journal of Patto's Electricals.

b Post the journal entries to the general ledger accounts.

[Exercise 5.2]

The owner of Perfect Pictures, Eliza Bartolo, has supplied the following details of transactions of the business during March 2015. A receipt book has been purchased and the pre-printed numbers start at 1001.

Mar 1	Bartolo contributed $10 000 cash to the business (receipt not issued)
3	Cash sale of $600, plus GST of $60 (cost price $280)
4	Issued a receipt for $880 for cash sale, including $80 GST (cost $390)
6	Sold goods for $280 cash, plus GST of $28 (cost of sale $150)
9	Received $25 interest
10	Cash sale $400, plus $40 GST (cost $190)
12	Borrowed $14 000 from EZ Finance to buy new equipment
13	Received $550 cash for goods (including GST of $50) that had cost $300
14	Supplied a quote to supply framed prints to Fewster, Kerin & Partners—total cost of $850, plus GST of $85 (cost $490)
16	Cash sale of $380, plus GST of $38, for goods originally costing $200
17	$400 cash sale plus $40 GST (cost price $200)
20	Arranged an overdraft facility with a limit of $5000
24	Goods that had cost $290 were sold for $560 cash, plus GST $56
29	Cash sale $330, including GST of $30 (cost of sale $150)
31	Commission received for selling posters $200, plus GST of $20

ADDITIONAL INFORMATION:

On 1 March 2015 the business had the following opening balances in the general ledger: cash at bank $5000, stock control $41 000, GST clearing $1000 cr and capital—E. Bartolo $45 000.

a Design a multi-column cash receipts journal for Perfect Pictures and enter the relevant transactions from the list above.

b Post the receipts journal to the relevant general ledger accounts.

c Balance the accounts as at 31 March and extract a trial balance at that date.

d Explain your treatment of the items dated 14 March and 20 March.

[Exercise 5.3]

The following cash payments relate to Monk's Bike Shop, a small business owned and operated by Douglas Monks:

2015	
Apr 1	Purchased stock for cash $520, plus GST of $52 (Chq. 6101)
2	The owner withdrew $600 (Chq. 6102) and an advertising bill of $450, plus $45 GST was paid (Chq. 6103)
3	Paid assistant's wages $275 (Chq. 6104)
4	Stock items bought for cash (Chq. 6105) $880, including GST of $80
5	Paid creditor—B. Spoke $400 on account (Chq. 6106) and cashed a cheque for the owner's personal use $400 (Chq. 6107)
6	Stock bought for cash $660, including $60 GST (Chq. 6108)

ISBN 978 1 4202 3058 1

a Enter the above transactions in a cash payments journal.

b Post the journal to the general ledger of Monk's Bike Shop.

c Explain the impact of the GST recorded in the cash payments journal on the balance of the GST clearing account.

[Exercise 5.4]

The owner of Northcote Furniture has supplied the following details of transactions for the business during May 2015. Cheques are used for all cash payments and the next cheque to be written is number 3426. On 1 May 2015 the following balances were already in the general ledger:

Cash at bank $10 000, stock control $68 000, premises $750 000, GST clearing $3 500, loan from National Australia Bank $168 000, creditor—B. McLaverty $2 500, capital $654 000.

2015	
May 1	Purchased bar stools for cash $1 960, plus $196 GST
3	Advertising account paid $132, including $12 GST
4	Paid secretary's salary $600
5	The owner withdrew $400 for personal use
8	Made a loan repayment of $1 500 to National Australia Bank
11	Paid secretary's salary $600
14	Coffee tables bought for cash $2 100, plus GST of $210
17	Advertising account paid $120, plus $12 GST
18	Paid secretary's salary $600
20	Purchased new TV cabinets for cash $2 400, plus GST $240
21	Paid creditor—McLaverty $1 500
22	Placed an order for $4 000 worth of bedside tables with Frazzetto's Furniture, to be delivered in June (GST of $400 to be added)
25	Paid secretary's salary $600
26	The owner withdrew $800 for personal use
31	Paid advertising account $120, plus GST of $12

a Design a multi-column cash payments journal for Northcote Furniture and enter the relevant transactions from the above list.

b Enter the opening balances in the general ledger accounts.

c Post the information in the payments journal to the general ledger.

d Balance the accounts as at 31 May and prepare a trial balance as at that date.

ISBN 978 1 4202 3058 1

[Exercise 5.5]

Alessio's Auto Parts provides a variety of mechanical parts. On 1 June 2015 the following account balances existed:

Cash at bank $8 500, debtor—City Cabs $1 500, stock control $62 000, GST clearing $2 500 creditor—Auto Spares Co. $9 000, capital—$60 500.

The following transactions occurred during June 2015:

Jun 2	Paid rent for the month $8 000, plus GST of $800 (Chq. 3026)
	Received $220 for a cash sale, including GST of $20 (cost of sale $130) (Rec. 172)
3	Purchased spare parts for cash $450, plus GST of $45
	Received $330 for a cash sale, including $30 GST (cost of sale $160)
4	Spare parts purchased for cash $220, plus GST of $22
5	Paid Auto Spares Co. $950 on account after receiving a discount of $50
6	Paid weekly wages $775
	Received $110 for a cash sale, including GST of $10 (cost price $60)
9	The proprietor withdrew $550 for personal use
10	Goods costing $250 were sold for cash $450, plus $45 GST
11	Paid for advertising in local newspaper $260, plus GST of $26
	Sold a battery for $132 cash, including $12 GST (cost price $65)
12	Received in cash $165 for goods that had cost $70 (GST included in price)
	Spare parts purchased for cash $190, plus $19 GST
13	Paid weekly wages $745
16	City Cabs paid $450 on account (after deducting discount allowed $30)
17	The owner withdrew $450
18	Sold headlight protectors for cash $110, plus GST of $11 (cost of sale $52)
19	Bought stock items for cash $470, plus $47 GST
20	Paid weekly wages $780
	Purchased new computer for cash $1 900, plus $190 GST
23	Received $120 (plus GST $12) from the sale of a battery (cost price $55)
24	Cash sale $140, plus $14 GST (cost $65)
25	The owner contributed a further $8 000 cash to the business
26	Received $90 from a cash sale, plus $9 GST (cost price $50)
27	Paid weekly wages $755
28	Purchased stock for cash $440 (includes GST of $40)
29	Sold goods for cash $420, plus GST of $42 (cost of sale $190)
30	Paid courier fees for month $110 (inc. GST)

a Design appropriate cash journals for Alessio's Auto Parts and enter the above transactions in these journals.

b Enter the opening balances in the general ledger accounts on 1 June 2015.

c Post the cash journals to the general ledger accounts.

d Balance the accounts as at 30 June 2015 and prepare a trial balance as at that date.

ISBN 978 1 4202 3058 1

[Exercise 5.6]

Gagliano's Cleaning Products sells to both businesses and private individuals. On 1 July 2015 the following balances were in the general ledger accounts:

Cash at bank $400 overdrawn, stock control $51 000, debtor—National Australia Bank $800, debtor—Papa's Printers $300, vehicle $28 000, GST clearing $700 cr, loan from QE Finances $12 000, capital $?

The following transactions took place during the month of July 2015:

Jul 3	Received $100, plus $10 GST, for a cash sale to M. Bonogoure—accountant (Rec. 281)—cost price $45
4	Received $180, plus $18 from R. Smith for a cash sale (Rec. 282)—cost price $75
5	Received $99 (inc. $9 GST) for cleaning products sold to T. Walkley—architect—cost price of sale $50
	Received a letter from the bank manager informing us that a new overdraft limit of $4 000 has been approved
6	Paid for petrol for vehicle $80, plus $8 GST (Chq. 6251)
	Received $294 from Papa's Printers on account, after granting a $6 discount
7	Purchased stock items for $550 cash, plus GST of $55
10	Wrote a cheque out to QE Finances for $700 for a loan repayment
	Received $500 for cash sale, plus $50 GST (cost of sale $240)
11	Paid for advertising $120, plus $12 GST
12	Paid registration on the vehicle $740, plus $74 GST
	Received $140 for cash sale, plus $14 GST (cost price $65)
13	Received $784 on account from the National Australia Bank (discount $16)
14	The owner withdrew $900 for private use
17	Bought stock of cleaning products for cash $560, plus GST $56
	Received $110 (inc. GST) from Barry John Menswear for cash sale (cost price $50)
18	Paid for advertising $100, plus $10 GST
	Received $170 for a cash sale, plus GST $17 (cost $75)
19	Submitted a quote for $250 (plus $25 GST) to supply QE Finances with products in August 2015 (cost price $110)
	Received $180 for a cash sale, plus $18 GST (cost of sale $80)
21	Cash purchase of stock $350, plus $35 GST
24	The owner withdrew $500
25	Paid for advertising $120, plus $12 GST
26	Received $100 for cash sale to M. Sweeney, plus $10 GST (cost of sale $50)
27	Paid for stationery $200, plus $20 GST
28	Received $200 for a cash sale, plus GST of $20 (cost price $110)

a Design appropriate cash journals for Gagliano's Cleaning Products and enter the above transactions in these journals.

b Enter the opening balances in the general ledger accounts on 1 July 2015.

c Post the cash journals to the general ledger accounts.

ISBN 978 1 4202 3058 1

d Balance the accounts as at 31 July 2015 and prepare a trial balance as at that date.

e Are the journals you designed for Gagliano's Cleaning Products suitable for all small businesses? Explain your answer using examples.

[Exercise 5.7]

On 31 March 2015 Romeo's Art Supplies had the following balances in the general ledger:

Stock control $30 000, cash at bank $4 500, debtor—El Hage $780, debtor—Vuu $740, debtor—Maggs $1 200, display equipment $8 900, vehicle $28 000, GST clearing $2 620, creditor—Wholesale Arts $2 300, creditor—Trendy Arts $1 800, bank loan $5 400 and capital $62 000.

During the month of April the following transactions took place:

Apr	1	Cash sale $270, plus GST $27 (cost price $135) Receipt no. 122
	2	Paid telephone account $130, plus GST $13 (Cheque no. 626261)
	3	A. Romeo (proprietor) withdrew cash for personal use $650
	5	Received $380 from debtor Vuu after allowing a discount of $20
	6	Paid Wholesale Arts $1 170 by cheque and received a discount of $30
	7	Weekly wages paid by cheque $540
	8	Purchased inventory for cash $1 200, plus $120 GST
	12	Sold goods for cash $360, plus $36 GST (cost of sales $170)
	13	Cash drawings by Romeo $450
	14	Paid wages $550
	16	Debtor Maggs paid $475 on account after a discount of $25
	18	Made a cash sale of goods that had cost $230 (receipt issued for $450, plus GST of $45)
	19	Received a further $4 000 as a bank loan to finance the purchase of a computer. Romeo has not yet decided what model to buy
	20	Wrote a cheque to Trendy Arts for $1 750 in full settlement of account, after being granted a discount for prompt payment
	21	Paid weekly wages $540
	22	Debtor Vuu made a further payment and was allowed a discount of $5 (amount received $145)
	23	Cash sale of $253, including GST of $23 (cost price $110)
	24	El Hage paid $200 on account (no discount granted)
	28	Sold goods for cash to D. Tran $520, plus $52 GST (cost price $270)
		Wages paid $560
	30	Cash purchases of stock $980, plus $98 GST

a Prepare suitably designed cash journals for Romeo's Art Supplies and record all relevant transactions for the month of April 2015.

b Enter the opening balances in general ledger accounts on 1 April and post the cash journals prepared in **a**.

c Balance all general ledger accounts on 30 April 2015 and prepare a trial balance as at that date.

ISBN 978 1 4202 3058 1

Chapter 6

Credit sales and credit purchases journals

OBJECTIVES

At the completion of this chapter, you should be able to:

- define a credit transaction
- distinguish between credit sales and credit purchases
- outline the function of a credit sales journal
- record transaction data in a credit sales journal, including GST
- post a credit sales journal to general ledger and subsidiary accounts
- outline the purpose of a debtors subsidiary ledger
- prepare a debtors schedule at the end of a period
- describe the benefits of using subsidiary ledgers
- outline the function of a credit purchases journal
- record transaction data in a credit purchases journal, including GST
- post a credit purchases journal to general ledger and subsidiary accounts
- outline the purpose of a creditors subsidiary ledger
- prepare a creditors schedule at the end of a period.

ISBN 978 1 4202 3058 1

6.1 Credit transactions

Chapter 5 introduced the use of cash journals to record the receipts and payments of a business. Although such events may make up the bulk of transactions for many firms, other firms also do business on a credit basis. A **credit transaction** is any transaction where goods or services are provided on a certain date, but payment for them is delayed until some later date.

In a trading firm, credit transactions may occur on two fronts. First, goods may be provided on credit to regular and trusted customers. This can be used to attract more customers and increase the firm's revenue. If the firm is dealing with other businesses it may be necessary to extend credit, or risk losing the sales to competitors. Many firms find themselves under pressure to provide credit facilities to their customers because of such competition.

A trading firm may also use the benefits of credit by purchasing stock from creditors. This eliminates the constant need to write cheques. When specific products are required they may be picked up from the supplier and simply put on the account. At the end of the month a statement showing all purchases is received and one single cheque can then be used to pay off the total amount. Therefore, the use of credit is quite practical for a business and in fact can be more efficient than writing cheques every time a purchase is made. By buying on credit, a trading firm also gains valuable time during which it can try to sell the goods purchased. It may be possible to sell the products before the credit purchase is due for payment. This is a significant reason why many trading firms prefer to buy their stock items on credit terms.

A single business document is used to provide evidence of both credit sales and credit purchases. An **invoice** is used as the source document for both types of credit transactions. However, there is one slight difference between these two events. When a firm sells goods on credit the original invoice is issued to the customer and a copy is kept for accounting purposes. Because the invoices used for credit sales are issued by the firm they will therefore run in sequence, as did the receipts and cheques used in the cash journals in the previous chapter. When the business purchases stock on credit, the firm receives the original invoice. This has implications for the recording of credit transactions, because only the invoices for credit sales will run in numerical sequence. As the purchase invoices are received from other businesses, they cannot run in sequence and therefore there is no immediate checking device to ensure that all invoices have been recorded.

6.2 Recording in the credit sales journal

The **credit sales journal** is used to record all sales made by a firm on a credit basis. As credit is involved, it is vital that the name of the customer (the **debtor**) is recorded. The invoice number should also be noted in case of future queries about the amount owing by the customer. This allows the information to be traced back to the original source document if necessary. The credit sales journal will therefore provide a neat summary of the goods provided to customers on a credit basis in a given period of time. The design of the journal is quite simple, because it only accounts for one type of transaction. Every time a firm sells goods on credit to customers there are several accounts that will be affected in the general ledger. First of all, the Debtors account and the credit sales account are affected with the selling price of the transaction. Also, the debtor must be charged GST, and this dollar value will affect both the debtors account and the GST clearing account. The other item to keep in mind is the cost price of the goods that have been sold. This value must be transferred out of stock control to the cost of sales account. These

ISBN 978 1 4202 3058 1

three points provide the basis of the design of the credit sales journal. Consider the transactions below, which relate to the business of Complete Painting Supplies.

Feb 1	Issued invoice 451 for $2 500, plus GST of $250 to M. Belfiore for a credit sale (cost price $1 400)
4	Invoiced A. Grech for $1 000, plus $100 GST (Inv. 452)—cost of sale $600
9	Charged R. Tran $400, plus GST of $40 (Inv. 453)—cost of sale $210
14	Invoiced M. Belfiore for $220, including $20 GST (Inv. 454)—cost price $120
25	Sent invoice 455 to J. Younan for $440, including $40 GST (cost price $200)

As all of these transactions are the same in nature, they can be grouped together and entered in a credit sales journal, which is shown in figure 6.1.

Following on from the sales journal, the information can then be posted to general ledger accounts at the end of the month to show the double entries that result from these transactions.

Figure 6.1 Credit sales journal

Date	Debtor	Inv. no.	Cost of sales $	Sales $	GST $	Debtors control $
Feb 1	M. Belfiore	451	1 400	2 500	250	2 750
4	A. Grech	452	600	1 000	100	1 100
9	R. Tran	453	210	400	40	440
14	M. Belfiore	454	120	200	20	220
25	J. Younan	455	200	400	40	440
28	Totals		2 530	4 500	450	4 950

Figure 6.2 General ledger entries posted from the credit sales journal

Credit sales a/c

		$			$
			Feb 28	Debtors control	4 500

Cost of sales a/c

Feb 28	Stock control	2 530			

Stock control a/c

Feb 1	Balance	10 000	Feb 28	Cost of sales	2 530

Debtor—M. Belfiore a/c

Feb 28	Sales/GST clearing	2 750			
28	Sales/GST clearing	220			

continued

Debtor—A. Grech a/c

		$			$
Feb 28	Sales/GST clearing	1 100			

Debtor—R. Tran a/c

Feb 28	Sales/GST clearing	440			

Debtor—J. Younan a/c

Feb 28	Sales/GST clearing	440			

GST clearing a/c

			Feb 28	Debtors	450

As with all special journals, the use of the credit sales journal results in time-saving when posting to the general ledger. Rather than every debtor's name having to be entered in the credit sales account, the total of the journal is posted to represent the total sales made for the month. This achieves the goal of using a journal to provide summarised information for the general ledger. Similarly, a total can be posted to the cost of sales account from stock control to record the total cost of sales for the period covered by the sales journal. However, the debit side of the credit sales transaction involves a considerable number of entries. In the example of Complete Painting Supplies, five credit transactions resulted in five debit entries. As these involve different debtors, they must be entered in individual accounts. Statements of account are prepared for individual customers and the ledger accounts must reflect the individual situation. Each of the entries to the debtors' accounts has been noted as **sales/GST clearing**, indicating that a credit sale has been made and GST has been charged to the debtor. This is the most efficient way of recording the credit sales and the appropriate amount of GST, but these two entries may also be entered separately if one chooses. Using the entry shown above for A. Grech, the two possible ways of recording the transaction are shown below:

Method 1

Debtor—A. Grech a/c

		$			$
Feb 28	Sales/GST clearing	1 100			

Method 2

Debtor—A. Grech a/c

Feb 28	Sales	1 000			
	GST clearing	100			

ISBN 978 1 4202 3058 1

6.3 The need for control accounts

If a firm sells its goods to most of its customers on credit, the general ledger will tend to get cluttered with the many individual debtors' accounts. In this situation a firm may decide to introduce a **debtors control account** in the general ledger, with a subsidiary ledger for its individual debtors. A **subsidiary ledger** supplements the main general ledger and records details relating to one particular area—in this case debtors. It has the advantage of removing the bulky detail from the general ledger. This makes posting procedures to the general ledger even more streamlined. The general ledger provides information relating to total debtors through the debtors control account. The details of individual debtors are removed from the general ledger to the additional record known as the **debtors subsidiary ledger**. In the example of Complete Painting Supplies introduced earlier in this chapter, a credit sales journal was prepared (refer to figure 6.1). If this firm used a subsidiary ledger for its debtors, the selling price total would be posted to the general ledger shown in figure 6.3.

Figure 6.3 General ledger entries using debtors control account

Credit sales a/c

		$			$
			Feb 28	Debtors control	4 500

Debtors control a/c

Feb 28	Sales/GST clearing	4 950			

GST clearing a/c

			Feb 28	Debtors control	450

The benefit of using a control account in the general ledger is that the credit sales journal will result in a summary of all debtors' transactions. No matter how many debtors are involved, one debit may be made to the debtors control account, with corresponding credit entries being made to the sales account and GST clearing. If the credit sales journal is posted once a month, there may be 30 or more transactions involved, but there will only ever be one double entry necessary to record total sales and GST. Keep in mind that there is still another double entry required to record the total of cost of sales for the period. That is, a debit to the cost of sales account and a credit to the stock control account must always be made to take care of the cost price of goods sold during the month.

In the debtors subsidiary ledger the primary area of interest is the amount owing by the individual debtor. Because of this, only one half of the usual double entry is prepared. That is, single entry accounting is carried out in the debtors subsidiary ledger. It is important to note that, unlike the general ledger, all entries in a subsidiary ledger should be made on the actual date when the transaction occurred. They should be updated regularly, as customers may make enquiries about how much they owe on a particular date. The entries shown earlier in figure 6.2 have been reproduced in figure 6.4 to demonstrate how these accounts would appear in a subsidiary ledger.

ISBN 978 1 4202 3058 1

Figure 6.4 Debtors subsidiary ledger

Debtor—M. Belfiore a/c

		$			$
Feb 1	Sales/GST clearing	2 750			
14	Sales/GST clearing	220			
		2 970			

Debtor—A. Grech a/c

Feb 4	Sales/GST clearing	1 100			

Debtor—R. Tran a/c

Feb 9	Sales/GST clearing	440			

Debtor—J. Younan a/c

Feb 25	Sales/GST clearing	440			

The entries in a debtors subsidiary ledger are exactly the same as those that would have been made in a general ledger if a control account were not being used. The same rules still exist, as each debtor's account is an asset. Therefore, increases in a debtor's account are still debits and decreases are credits. Note also that there are no entries for the cost of sales in the debtors ledger. Only the selling prices affect debtors, and that is all that needs to be recorded in their individual accounts. The only difference in the above accounts is that the individual date of each sale has been used, whereas in general ledger accounts the end of the month is the date that should be recorded.

6.4 Debtors schedules

It is important to periodically check that what is in the subsidiary ledger is the same as that which has been recorded in the general ledger control account. This is particularly so in large firms, where different staff members may be in charge of the recording processes in the two separate ledgers. If multiple copies of source documents are in use, the entries in the individual debtors' accounts may be completely independent of the entries in the general ledger. A **debtors schedule** is a listing of the balances of the individual debtors' accounts in the subsidiary ledger. The total of this listing is then checked against the balance of the debtors control account in the general ledger. This process may identify recording errors in one or both ledgers. A debtors schedule prepared from the subsidiary ledger shown previously is demonstrated in figure 6.5.

Figure 6.5 Debtors schedule

Debtors schedule as at 28 February 2015

	$
M. Belfiore	2 970
A. Grech	1 100
R. Tran	440
J. Younan	440
Balance as per debtors control a/c	4 950

ISBN 978 1 4202 3058 1

6.5 The cash receipts journal and debtors control

Chapter 5 demonstrated how a multi-column cash journal makes posting to the general ledger more efficient. If a system of subsidiary ledgers and control accounts is in place, the cash journals in conjunction with the sales journal can be used to achieve a highly streamlined set of accounts in the general ledger. This is achievable because totals can then be posted to virtually all accounts.

The debtors control account can be used to provide a summary of all debtors' transactions. The total of all credit sales can be recorded, along with the GST charged on these sales. The cash receipts journal can be used to post the total amount of cash received from debtors, along with any discounts granted. Thus, the debtors control account provides a concise summary of all transactions involving debtors over a given period of time. A typical debtors control account would appear as shown in figure 6.6, once all data has been posted from both a sales journal and a cash receipts journal.

Figure 6.6 Debtors control account with journal postings

Debtors control a/c

		$			$
Mar 1	Balance	10 000	Mar 31	Bank/discount expense	9 000
31	Sales/GST clearing	6 000			

As both of the entries in the above control account come directly from the totals of journals, the posting process is extremely efficient. The bulky detail that would have been in the general ledger is removed to the subsidiary ledger because of the special columns used in the two journals.

6.6 Recording in the credit purchases journal

A trading firm may also require a credit purchases journal if stock purchases are made on credit. Quite often goods are purchased on a regular basis from the same suppliers (**creditors**). In such situations businesses will often open a credit account with the supplier of the goods. The **credit purchases journal** is used to gather all transactions of this type prior to posting to the general ledger. The source document used is once again an invoice, but in this case the original document is used. As the invoices are received from the supplier or suppliers, the document numbers will not run in sequence. The double entry created by a credit purchase of stock is a debit to stock control and a credit to creditors (the individual creditor's account or a creditors control account). This double entry provides the basic design of the purchases journal, as management needs to know the debt created by each credit transaction. Just as it is important to keep control over a firm's debtors, the amount owed to creditors is also an important item for management's consideration.

To demonstrate the use of the credit purchases journal, the transactions on the next page have been created for Leone's Lighting Store.

ISBN 978 1 4202 3058 1

Jun 4	Bought stock on credit from Eddie's Electricals for $2 400, plus GST of $240 (Inv. 1254)
9	Credit purchase of goods from Wholesale Electrical for $1 800, plus $180 GST (Inv. BD101)
15	Invoice 1268 received from Eddie's Electricals for credit purchases costing $990, including GST of $90
21	Credit purchases of stock from Ace Lighting for $700, plus $70 GST (Inv. 8912)
27	Bought goods on credit from Eddie's Electricals for $440, including GST of $40 (Inv. 1292)

These five credit purchases of inventory items would be recorded in the credit purchases journal as shown in figure 6.7.

If Leone's Lighting does not use a subsidiary ledger for its creditors, the general ledger postings would be recorded as shown in figure 6.8.

Figure 6.7 Credit purchases journal

Date	Creditor	Inv. no.	Stock control $	GST $	Creditors control $
Jun 4	Eddie's Electricals	1254	2 400	240	2 640
9	Wholesale Electrics	BD101	1 800	180	1 980
15	Eddie's Electricals	1268	900	90	990
21	Ace Lighting	8912	700	70	770
27	Eddie's Electricals	1292	400	40	440
30	Totals		6 200	620	6 820

Figure 6.8 General ledger

Stock control a/c

		$			$
Jun 30	Creditors	6 200			

GST clearing a/c

Jun 30	Creditors	620			

Creditor—Eddie's Electricals a/c

			Jun 30	Stock control/GST clearing	2 640
				Stock control/GST clearing	990
				Stock control/GST clearing	440

Creditor—Wholesale Electrical a/c

			Jun 30	Stock control/GST clearing	1 980

Creditor—Ace Lighting a/c

			Jun 30	Stock control/GST clearing	770

ISBN 978 1 4202 3058 1

6.7 The creditors control account

If the volume of creditors is clogging up the general ledger with numerous accounts, it may be decided to introduce a **creditors subsidiary ledger**. This works in the same way as the debtors subsidiary ledger, which was introduced earlier. The individual creditors' accounts are removed from the general ledger and are replaced by the **creditors control account**. This account records data for total creditors only. If the details of an individual creditor's transactions were required, the subsidiary ledger would be called on to supply them.

Using the data previously listed in the purchases journal (refer to figure 6.7), the general ledger will only have three ledger accounts affected by the posting of the purchases journal. The entries required are shown in figure 6.9.

Figure 6.9 General ledger using creditors control account

Stock control a/c

		$			$
Jun 30	Creditors control	6 200			

GST clearing a/c

Jun 30	Creditors control	620			

Creditors control a/c

			Jun 30	Stock control/GST clearing	6 820

To support these general ledger entries, a subsidiary ledger must be in place to record the details of individual creditors' accounts. In this case the subsidiary ledger would be prepared as shown in figure 6.10.

Figure 6.10 Creditors subsidiary ledger

Creditor—Eddie's Electricals a/c

		$			$
			Jun 4	Stock control/GST clearing	2 640
			15	Stock control/GST clearing	990
			27	Stock control/GST clearing	440
					4 070

Creditor—Wholesale Electrical a/c

			Jun 9	Stock control/GST clearing	1 980

Creditor—Ace Lighting a/c

			Jun 21	Stock control/GST clearing	770

ISBN 978 1 4202 3058 1

Note that all entries made in the individual subsidiary accounts have been entered with the actual date of each transaction. Creditors' subsidiary accounts must be kept up to date so that management can monitor how much they owe and to whom. The entries for stock control and GST clearing have once again been combined into the one entry in the creditors' accounts. Although these two entries may be entered separately, it is quite acceptable to combine the two, as the details of the entries are always available in the journal if required at a later date.

6.8 Creditors schedules

In order to check the accuracy of the creditors subsidiary ledger, it is reconciled with the creditors control account in the general ledger. A **creditors schedule** is a listing of all creditors with the amount owing to them at a particular date. The total of the schedule should equal the balance of the creditors control account. Using the accounts shown in figure 6.10, the creditors schedule would be prepared as in figure 6.11.

Figure 6.11 Creditors schedule

Creditors schedule as at 30 June 2015

	$
Eddie's Electricals	4 070
Wholesale Electrical	1 980
Ace Lighting	770
Balance as per Creditors Control a/c	6 820

6.9 The cash payments journal and creditors control

Just as the cash receipts journal is used to record the total cash received from debtors, the payments journal is used to keep track of all payments to creditors. The cash payments journal also records all discounts granted by creditors. When the special journals are posted to the general ledger, there will now be four key items that are posted. These include:

- from the purchases journal: the total cost price of goods purchased on credit, plus the GST applicable to such purchases.
- from the cash payments journal: the total cash paid to creditors, plus any discounts granted to our business by suppliers.

Thus a typical Creditors Control account would appear as shown in figure 6.12, once all data has been posted from both a purchases journal and a cash payments journal.

Figure 6.12 Creditors Control account with journal postings

Creditors control a/c

		$			$
Jul 31	Bank/Discount revenue	5 000	Jul 1	Balance	20 000
			31	Stock control/GST clearing	8 000

ISBN 978 1 4202 3058 1

When the four special journals are all in use, along with subsidiary ledgers for both debtors and creditors, the general ledger is extremely streamlined and efficient. All the bulky detail that would have been in the general ledger is removed to the two subsidiary ledgers. When details of any individual customer or supplier are required, their accounts are readily available in the subsidiary record. The big advantage is that they are no longer cluttering the general ledger with numerous accounts. Added to this is the checking mechanism available to management via the debtors and creditors schedules, thus ensuring greater control over the entire recording process.

6.10 Advantages and disadvantages of control accounts

As with all aspects of accounting, control accounts may provide several benefits to the management of a business, but they also have some disadvantages. As a summary of the material presented in this chapter, these can be summarised as follows:

Advantages:

- **Bulky detail is removed from the general ledger.** The accounts are easier to work with, as only summarised information is recorded in control accounts.
- **Trial balance figures provide a summary of total figures, rather than individual accounts.** The example of thousands of debtors being able to be summarised in the one single account is evidence of this advantage. The total amount owed by debtors is readily available in the trial balance. Similarly, the total amount owing to creditors is also available as the balance of the creditors control account.
- **In larger businesses, accounting departments can be set up to cater for specific areas.** For example, a trading business with numerous debtors (for example, Myer) may decide to have accounting staff working specifically in the area of debtors. As they work only in one area, they can develop specialised knowledge and should be more efficient in responding to the firm's needs.
- **Control accounts provide a checking mechanism to detect recording errors.** As the balance of the control account can be checked against the subsidiary ledger, recording errors in one or both records can be picked up and corrected.
- **Control accounts assist in enforcing internal control procedures over staff and may therefore reduce the likelihood of fraud.** Different staff should independently maintain the two sets of records (control account and subsidiary ledger). This creates the situation of one employee being used to check the work of another. For example, if an employee were going to attempt a fraud in the area of creditors, at least one other employee would need to work in collusion with the perpetrator. This reduces the chance of theft occurring and helps protect the assets of the business.

Disadvantages:

- **Control accounts are not suited to all businesses and can create unnecessary work in terms of accounting records.** Control accounts should be used in response to a perceived need and should not be introduced just for the sake of it.
- **Additional staff may have to be hired.** If the owner is not going to do all the additional work involved in keeping control accounts with subsidiary ledger accounts, extra employees may be needed. This means additional wages may be incurred as a direct result of using control accounts.
- **A computerised system may be introduced.** Rather than hiring additional employees, a business owner may need to purchase additional computer hardware and/or accounting software and this may involve a considerable outlay of cash.

ISBN 978 1 4202 3058 1

› GLOSSARY OF TERMS

creditors suppliers from whom a business has purchased goods on credit, who have not yet been paid. Invoices are received from suppliers to confirm obligations created by credit purchases.

creditors control account a general ledger account used to summarise transactions relating to a firm's total creditors. This account will show total purchases for a period (including GST), total cash paid to creditors, discounts received and the total amount owing to creditors at the start and end of a period.

creditors schedule a list of creditors' names showing the amounts owing at a particular date. The schedule is used as a checking device to ensure that the total of the individual creditors' accounts equals the balance of the Creditors Control account.

creditors subsidiary ledger an additional record to the general ledger, used by a firm to keep track of transactions relating to the firm's individual creditors' accounts.

credit transaction an event whereby goods or services are provided on a certain date, with a promise being made by the buyer to pay at a later date.

debtors customers to whom a business has sold goods on credit, who have not yet paid. Invoices are issued to debtors to communicate debts created by credit sales.

debtors control account a general ledger account used to summarise transactions relating to a firm's total debtors. This account will show total sales for a period (including GST), total cash received from debtors, discounts allowed, and the total amount owed by debtors at the start and end of a period.

debtors schedule a list of debtors' names showing the amounts owing at a particular date. The schedule is used as a checking device to ensure that the total of the individual debtors' accounts equals the balance of the Debtors Control account.

debtors subsidiary ledger an additional record to the general ledger, used by the firm to keep track of transactions relating to the firm's individual debtors' accounts.

invoice a source document used to confirm that goods or services have been bought or sold on credit. Sales invoices are issued to debtors; purchase invoices are received from creditors.

purchases journal (or **credit purchases journal**) a daily record used to note details of credit purchases of inventory items.

sales journal (or **credit sales journal)** a daily record used to note details of credit sales of inventory items.

subsidiary ledger an additional record to the general ledger, used by the firm to record details relating to one particular area, such as debtors or creditors.

ISBN 978 1 4202 3058 1

Summary questions

1. Define 'credit transaction'.
2. Distinguish between credit sales and credit purchases.
3. Explain the benefits achieved through the use of a special journal for credit sales.
4. State the double entry to record a credit sale, including GST charged.
5. Describe two advantages of using a subsidiary ledger for debtors.
6. What is a control account? What is its purpose?
7. State and describe three advantages of using control accounts.
8. State and describe two disadvantages of using control accounts.
9. Under what circumstances should a business owner introduce a control account for debtors?
10. Outline the purpose of the debtors control account.
11. What is the function of a debtors schedule?
12. State the double entry that records a credit purchase of stock, including GST charged.
13. If a creditors control account records all details about creditors, why is it necessary to keep a creditors subsidiary ledger?
14. What does it mean if a creditors schedule does not equal the balance of the creditors control account?
15. 'Control accounts should be used for debtors only, as they are irrelevant to creditors.' Could this be an accurate statement for some businesses? Explain your answer fully.
16. Outline how control accounts can assist in a firm's overall internal control procedures.
17. Explain how employee fraud may be prevented in larger businesses through the use of control accounts and subsidiary ledgers.

ISBN 978 1 4202 3058 1

Practical exercises

[Exercise 6.1]

Kelly's Wholesale Toys had the following debtors balances as at 1 May 2015:

Tripodi's Toys $400, L. Rendina & Sons $380 and Toys Galore $1 200

The details of the firm's debtors are recorded as part of the normal general ledger. The following information relates to the transactions affecting the firm's debtors during May:

May 3	Charged Tripodi's Toys $2 500, plus GST of $250 for goods delivered: cost of sale $1 280 (Inv. 189)
5	Invoiced H. Franklin $300 for credit sale, plus GST of $30 (Inv. 190): cost of sale $180
8	Received $300 on account from L. Rendina & Sons
10	Issued Invoice no. 191 to B. Dobson for $1 000, plus GST of $100 (cost price $600)
13	Charged Tripodi's Toys $1 320 for credit sale, including GST of $120 (Inv. 192): cost price $650
16	Invoiced Northern Trading Company $900 plus $90 GST: cost of sale $460 (Inv. 193)
20	Received $400 from Tripodi's Toys
22	Sent Invoice no. 194 to Kids Games Pty Ltd $230, plus $23 GST (cost price $120)
24	Received $80 from L. Rendina & Sons
26	Invoiced G. Wayne & Co. $620 for credit sale, plus GST of $62 (cost price $320)
28	Sent a letter to Northern Trading regarding overdue account
30	Received $300 from H. Franklin

a Prepare the credit sales journal for Kelly's Wholesale Toys for the month of May 2015.

b Prepare the credit sales account, the GST clearing account and the individual debtors' accounts for Kelly's Wholesale Toys (including the cash receipts data from the May transactions).

c Would this business benefit by the introduction of a debtors subsidiary ledger? Explain your answer fully.

[Exercise 6.2]

Eileen's Electricals uses a subsidiary ledger to record details of the individual debtors of the business. In her general ledger Eileen uses a debtors control account to record transactions for total debtors. On 1 July 2015 the balance of debtors control was $4 030, consisting of the following:

Simon's Health Foods $2 500, R. Packer $920 and R. Sharon $610. Her stock on hand on 1 July was $42 400 and her bank account had a debit balance of $4 500.

ISBN 978 1 4202 3058 1

The following journals for July 2015 are available:

Sales journal

Date	Debtor	Inv. no.	Cost of sales $	Sales $	GST $	Debtors control $
Jul 2	Q. Crisp	3245	180	400	40	440
5	E. Trimboli	3246	170	350	35	385
6	R. Sharon	3247	130	250	25	275
12	L. Clarke	3248	100	200	20	220
18	Tinbinco Co.	3249	950	1 800	180	1 980
22	R. Packer	3250	80	250	25	275
24	R. Sharon	3251	70	150	15	165
31	Totals		1 680	3 400	340	3 740

Cash receipts journal

Date	Details	Rec. no.	Bank $	Disc. exp. $	Debtors control $	Cost of sales $	Sales $	Sundries $	GST rec'd $
Jul 4	Cash sales	151	110			50	100		10
8	R. Packer	152	900	20	920				
11	Q. Crisp	153	400		400				
12	Simon's Health Foods	154	2 500		2 500				
17	Capital	–	5 000					5 000	
19	R. Sharon	155	600	10	610				
23	L. Clarke	156	220		220				
27	E. Trimboli	157	50		50				
27	Interest	158	25					25	
30	Cash sales	159	330			150	300		30
31	Totals		10 135	30	4 700	200	400	5 025	40

a Using the above journals, prepare the following general ledger accounts to reflect the transactions of July 2015: sales, debtors control, GST clearing, discount expense, cash at bank, cost of sales and stock control.

b Formally balance the debtors control account.

c Prepare the debtors subsidiary ledger for July 2015.

d Prepare a debtors schedule as at 31 July 2015.

ISBN 978 1 4202 3058 1

[Exercise 6.3]

The following information relates to McPherson's Plumbing Supplies. On 1 June 2015 debtors' balances were:

E.S. Worne $140, A. Hews $200 and Brimbank Secondary College $1 390. Other account balances included cash at bank $2 270, stock $56 000, vehicle $22 000, GST clearing $2 000 and capital $80 000.

The business maintains a subsidiary ledger to keep control over its debtors.
During June the following invoices were issued (the cost of sales is shown in brackets):

Jun 2	Invoice 2134 to B. Leigh $230, GST $23 ($140)
4	Invoice 2135 to A. Mikopoulos $480, GST $48 ($250)
7	Invoice 2136 to J. Smith $420, GST $42 ($220)
10	Invoice 2137 to E. S. Worne $140, GST $14 ($80)
13	Invoice 2138 to K. Smith $120, GST $12 ($70)
17	Invoice 2139 to A. Hews $300, GST $30 ($160)
21	Invoice 2140 to J. Smith $180, GST $18 ($100)
24	Invoice 2141 to B Leigh $200, GST $20 ($120)
28	Invoice 2142 to A. Smith $120, GST $12 ($65)

The cash receipts journal for June 2015 showed the following:

Cash receipts journal

Date	Details	Rec. no.	Bank $	Disc. exp. $	Debtors control $	Cost of sales $	Sales $	Sundries $	GST rec'd $
Jun 3	A. Hews	342	190	10	200				
6	Cash sales	CRS	220			120	200		20
7	B. Leigh	343	240	13	253				
9	Cash sales	CRS	132			70	120		12
12	E.S. Worne	344	133	7	140				
15	J. Smith	345	440	22	462				
17	A. Mikopoulos	346	200		200				
18	Cash sales	CRS	154			80	140		14
22	Brimbank S.C.	347	1 350	40	1 390				
25	Cash sales	CRS	99			50	90		9
28	K. Smith	348	127	5	132				
29	Interest	B/S*	50					50	
30	Totals		3 335	97	2 777	320	550	50	55

* B/S indicates that data was sourced from the bank statement

ISBN 978 1 4202 3058 1

a Prepare a credit sales journal for June 2015.

b Post the information from your credit sales journal and the cash receipts journal provided to the general ledger accounts.

c Balance the general ledger accounts and prepare a trial balance.

d Prepare a debtors subsidiary ledger, showing details of all transactions.

e Reconcile the debtors control account with the subsidiary ledger by preparing a debtors schedule.

[Exercise 6.4]

Nicholson's Nuts had the following creditors as at 1 April 2015:

Northern Wholesale Nuts $1 400 and Melbourne Health Foods $580

The details of the firm's creditors are recorded as part of the normal general ledger. The following information relates to the transactions affecting the firm's creditors during April:

Apr 3	Received Inv. 4194 from Northern Wholesale Nuts for $800, plus GST of $80
5	Paid Melbourne Health Foods $200 on account
9	Purchased stock on credit from Northern Wholesale Nuts for $540, plus GST of $54 (Inv. 4203)
	Received delivery of a variety of nuts from Melbourne Health Foods (Inv. 105): total cost $143, including $13 GST
19	Paid Melbourne Health Foods $380 on account
22	Purchased nuts from Northern Wholesale Nuts on credit for $440, including GST of $40 (Inv. 4267)
23	Paid Northern Wholesale Nuts $1 000 on account

a Prepare the credit purchases journal for Nicholson's Nuts for the month of April 2015.

b Prepare the stock control account, the GST clearing account and the individual creditors' accounts, as they would appear in the general ledger of Nicholson's Nuts (including the cash payments data from the April transactions).

[Exercise 6.5]

Joe Touma is the owner of Touma's Timberyard and he uses a subsidiary ledger to record details of the individual creditors of the business. In his general ledger Touma uses a creditors control account to record his total creditors. On 1 May 2015 the balance of creditors control was $2 700, consisting of the following:

Tom's Timber $1 600, Handy Hardwood Pty Ltd $690 and J. Greenwood $410. Other balances on 1 May were: stock control $16 000, cash at bank $6 500 and GST clearing $400 cr.

ISBN 978 1 4202 3058 1

The following journals for May 2015 are available:

Purchases journal

Date	Creditor	Inv. no.	Stock control $	GST $	Creditors control $
May 3	J. Greenwood	2556	100	10	110
5	Tom's Timber	Y340	500	50	550
8	J. Greenwood	2587	150	15	165
15	Handy Hardwood	MN348	200	20	220
21	Top Timber Co.	1201	400	40	440
25	Tom's Timber	Y398	150	15	165
28	J. Greenwood	2623	350	35	385
31	Totals		1 850	185	2 035

Cash payments journal

Date	Details	Chq. no.	Bank $	Disc. rev. $	Creditors control $	Stock control $	Draw. $	Sundries $	GST paid $
May 2	Advertising	323	165					150	15
6	Tom's Timber	324	975	25	1 000				
9	Stock control	325	660			600			60
12	J. Greenwood	326	400	10	410				
16	Equipment hire	327	275					250	25
20	Drawings	328	100				100		
26	Handy Hardwood	329	890	20	910				
27	Stock control	330	440			400			40
28	Tom's Timber	331	600		600				
29	Drawings	332	400				400		
31	Totals		4 505	55	2 920	1 000	500	400	140

a Using the above journals, prepare the following general ledger accounts to reflect the transactions of May 2015: stock control, cash at bank, GST clearing, creditors control and discount revenue.

b Formally balance the creditors control account.

c Prepare the creditors subsidiary ledger for May 2015.

d Prepare a creditors schedule as at 31 May 2015.

e Explain the impact of the above two journals on the GST clearing account (refer to the GST account in your answer).

ISBN 978 1 4202 3058 1

[Exercise 6.6] The following information relates to McKerrell's Auto Parts.

On 1 March 2015 creditors' balances were G.M. Auto $350 and Ford Spares $650. Other account balances included cash at bank $3000, debtors $12000, stock control $42000, fittings $20000, GST clearing $1000 cr, loan from National Australia Bank $14000 and capital $61000.

The business maintains a subsidiary ledger to keep control over its creditors. During March the following invoices were received:

Mar 2	Invoice AD134 from G.T. Auto $320, plus $32 GST
5	Invoice 8302 from G.M. Auto $580, plus $58 GST
9	Invoice 8335 from G.M. Auto $320, plus $32 GST
12	Invoice G813 from Ford Spares $480, plus $48 GST
16	Invoice AD212 from G.T. Auto $290, plus $29 GST
20	Invoice 68430 from G.M. Auto $680, plus $68 GST
	Invoice G901 from Ford Spares $690, plus $69 GST
28	Invoice 2432 from Heaps of Mags $2100, plus $210 GST

The cash payments journal for March 2015 included the following entries:

Cash payments journal

Date	Details	Chq. no.	Bank $	Disc. rev. $	Creditors control $	Stock control $	Draw. $	Sundries $	GST $
Mar 2	Advertising	129	176					160	16
5	G.M. Auto	130	344	6	350				
8	Rent	131	1320					1200	120
12	Stock control	132	264			240			24
15	G.T. Auto	133	320		320				
18	Drawings	134	150				150		
21	Ford Spares	135	295	5	300				
24	Stock control	136	88			80			8
27	G.M. Auto	137	276	4	280				
30	Drawings	138	150				150		
31	G.T. Auto	139	290		290				
31	Totals		3673	15	1540	320	300	1360	168

a Prepare a credit purchases journal for March 2015.

b Post the information from your credit purchases journal and the cash payments journal provided to the general ledger accounts.

c Balance the general ledger accounts and prepare a trial balance.

d Prepare the individual creditors' accounts in the subsidiary ledger.

e Reconcile the creditors control account with the subsidiary ledger by preparing a creditors schedule.

[Exercise 6.7]

On 30 April 2015 the owner of Superior Sports Supplies, Bruce Ngo, provided the following account balances from his general ledger:

Cash at bank $5300, debtors control $4600, fittings $26400, vehicle $32000, GST clearing $3000, creditors control $3400, loan from National Australia Bank $16000, capital—Ngo $45900.

Debtors schedule as at 30 April 2015

	$
Spotswood University	2800
Prahran Football Club	850
Bulleen Soccer Club	950
Balance of debtors control	4600

Creditors schedule as at 30 April 2015

	$
T.J. Shorrin	2900
Ali Sports Pty Ltd	500
Balance of creditors control	3400

During the month of May 2015 the following financial events occurred:

Credit purchases

Date	Creditor	Stock control $	GST $
May 4	T.J. Shorrin	1500	150
11	Baffalo Sports	940	94
16	NY Sports Pty Ltd	500	50
21	T.J. Shorrin	740	74
25	Wholesale Sports Co.	860	86

ISBN 978 1 4202 3058 1

Credit sales

Date	Debtor	Cost of sales $	Sales $	GST $
May 3	Spotswood University	310	640	64
9	D.P. Murray	50	120	12
12	Carlton College	390	800	80
18	Prahran Football Club	90	190	19
22	Essendon Tennis Club	210	430	43
24	Bulleen Soccer Club	330	680	68

Cash receipts

Date	Details	Total rec'd $	GST $
May 2	Cash sales (cost price $270)	616	56
5	Bulleen Soccer Club (discount expense $25)	925	
12	D.P. Murray (discount expense $5)	127	
16	Spotswood University	1 000	
19	Cash sales (cost price $470)	1 045	95
22	Carlton College (discount expense $25)	855	
24	Cash sales (cost price $240)	550	50
29	Prahran Football Club	600	

Cash payments

Date	Details	Total paid $	GST $
May 3	Telephone	187	17
7	Wages	500	
9	Drawings	450	
11	T.J. Shorrin (discount revenue $50)	2 850	
16	Ali Sports Pty Ltd (discount revenue $15)	485	
19	Baffalo Sports	500	
22	Advertising	275	25

a Prepare the debtors subsidiary ledger and the creditors subsidiary ledger for the month of May 2015.

b Prepare a debtors schedule and a creditors schedule as at 31 May 2015.

ISBN 978 1 4202 3058 1

c Prepare control accounts for both debtors and creditors for the month of May and reconcile them with the schedules prepared in **b**. The accounts should be prepared under the assumption that the firm uses special journals for receipts, payments, credit sales and credit purchases.

d Explain how employees can be used to check one another's work when control accounts are used by a business.

[Exercise 6.8]

On 1 June 2015 Mobbs Book Shop had the following account balances in the general ledger:

Cash at bank $5300, debtors control $3400, stock control $41400, shop fittings $18000, GST clearing $200 cr, creditors control $2300, loan from MT Finance $12000, capital—S Mobbs $?

Mobbs has also supplied the schedules shown below:

Debtors schedule as at 31 May 2015

	$
Melbourne College	2100
D. Weaver	350
A. Cassandra	950
Balance as per debtors control	3400

Creditors schedule as at 31 May 2015

	$
Prestige Publishing	1500
Stuart's Books	800
Balance as per creditors control	2300

During the month of June 2015 the following financial events occurred:

Jun 1	Purchased stock on credit from Prestige Publishing for $1 500, plus $150 GST (Inv. 4823)
2	Paid yearly insurance $900, plus $90 GST (Chq. 53865)
3	Received cash sales of $660, including $60 GST (Rec. 372)—cost price of sales $320
4	Issued Invoice 8123 to S. Mohamad for $800, plus $80 GST (cost of sale $390)
5	Sent a cheque to Prestige Publishing for $1 000 (discount received $40)
6	Paid assistant's wages $550 by cheque
7	The owner withdrew $750
9	Received cash sales of $760, plus $76 GST (cost of sale $360)
10	Invoiced D. Weaver $530 for goods provided, plus $53 GST (cost of sale $250)
	Paid advertising $99, including GST of $9
11	Received $930 from A. Cassandra (discount allowed $20)
	Purchased stock on credit from Hick's Books for $670, plus GST of $67 (Inv. DE324)
12	Received $280 cash from J. Porter, plus GST of $28 (cost price $150)
	Applied for a loan from the National Australia Bank for $15 000 to help finance the purchase of new shop fittings
13	Paid assistant's wages $550 by cheque
	Sent a cheque to Stuart's Books for $500 (discount received $25)
	Bought goods on credit from Prestige Publishing $880, including $80 GST (Inv. 4901)
15	Invoiced Heathcote Primary School $2 200 for goods delivered on 13 November. The invoice included GST of $200 (cost price $1 200)
17	The owner withdrew $650
18	Received $360 cash sales, plus GST of $36 (cost price $200)
19	Purchased stock on credit from Stuart's Books (Inv. 281) for $500, plus $50 GST
20	Paid assistant's wages $550 by cheque
23	Cash sales received $340, plus $34 GST (cost price $200)
24	Invoiced I. Lawrence $280, plus $28 GST, for goods delivered the day before (cost of sale $150)
25	Sent a cheque to Stuart's Books for $300
26	Bought goods from Prestige Publishing $190, plus $19 GST (Inv. 4934)
27	Paid assistant's wages $600 by cheque
30	Received $855 from S. Mohamad (discount allowed $25)

a Prepare the following journals for June 2015: cash receipts, cash payments, credit sales and credit purchases. Your journals should be designed to meet the needs of the business and allow general ledger postings to be done efficiently.

b Post the four special journals to the general ledger.

c Balance the accounts and prepare a trial balance as at 30 June 2015.

d Prepare the debtors subsidiary ledger and the creditors subsidiary ledger, showing all details for June.

ISBN 978 1 4202 3058 1

e Prepare a debtors schedule and a creditors schedule as at 30 June 2015. (Make sure that these schedules are reconciled with the control accounts!)

f Prepare an income statement for the month ended 30 June 2015.

g Prepare a classified balance sheet as at 30 June 2015.

[Exercise 6.9]

The owner of Caruso's Curtains has supplied the following account balances from his business on 30 June 2015:

	$		$
Debtors Control	5 340	Cash at Bank	5 200
Stock Control	45 000	Shop Fittings	24 000
Creditors Control	4 260	Capital—G. Caruso	?
Delivery Vehicle	22 000	GST Clearing	1 460 CR
Bank Loan	16 500		

The subsidiary ledger accounts included the following balances:

Debtors	$	*Creditors*	$
T. Furey	1 240	Flemington Fabrics	2 180
Jones & Jones	840	Custom Designs	1 760
Jellett Industries	1 320	Curtains Plus	320
Bayside Grammar School	1 940		

During July 2015 the following transactions took place:

Jul 1	Paid rent for month $8 800 (Chq. 843), including GST of $800
2	Collected cash from T. Furey $1 200 (discount expense $40) (Rec. 222)
3	Cash sale $990 plus GST of $99 (cost price $460) (Rec. 223)
4	Paid Curtains Plus $300 in full settlement of account (Chq. 844)
5	Bought stock from Custom Designs for $1 040 plus GST of $104 (Inv. 7659)
6	Credit purchase from Oz Wholesale $520 plus GST of $52 (Inv. 10200)
7	Paid wages $500 (Chq. 845)
	Cash sale $880 plus GST of $88 (cost price $420) (Rec. 224)
8	Paid Flemington Fabrics $1 340 and received a discount of $40 (Chq. 846)
9	Made a loan repayment of $800 (Chq. 847)
11	Sold goods on credit to T. Furey for $440 plus GST of $44 (cost price $200) (Inv. 39491)
12	Received $820 from Jones & Jones in full settlement of account (Rec. 225)
13	Sold goods for cash $750 plus GST of $75 (cost of $360) (Rec. 226)
14	Paid wages $500 (Chq. 848)
15	Received $600 from Jellett Industries (Rec. 227)

continued

ISBN 978 1 4202 3058 1

16	Credit sale made to Topline Co. $760 plus GST of $76 (cost price $320) (Inv. 39492)
17	Cash drawings by the owner $700 (Chq. 849)
18	Cash sale of inventory $680 plus GST of $68 (cost of sales $340) (Rec. 228)
19	Bought inventory on credit from Flemington Fabrics $940 plus GST of $94 (Inv. 7677)
20	Paid Advertising bill for July $600 plus GST of $60 (Chq. 850)
21	Paid wages $600 (Chq. 851)
22	Sold goods to Jellett Industries for $880 plus GST of $88 (cost of sales $420) (Inv. 39493)
23	Paid Oz Wholesale $500 on account (Chq. 852)
24	Received $1 470 from Bayside Grammar School (discount expense $60) (Rec. 229)
25	Credit sale to Alex & Daley—Accountants $800 plus $80 GST (cost price $380) (Inv. 39494)
28	Paid wages $500 (Chq. 853)
29	The proprietor withdrew $600 for personal use (Chq. 854)
30	Cash sale of stock $440 plus GST of $44 (cost of sales $220) (Rec. 230)
	Sent a cheque to Flemington Fabrics for $800 (Chq. 855)

a Prepare the following special journals for the month of July 2015: credit sales, credit purchases, cash receipts and cash payments.

b Post your journals to the relevant general ledger accounts and balance all accounts as at 31 July.

c Prepare a trial balance as at 31 July 2015.

d Complete ledger accounts in both the debtors and creditors subsidiary ledger for the month of July.

e Prepare a debtors schedule and a creditors schedule as at 31 July 2015.

f Prepare an income statement for the month ended 31 July 2015.

g Prepare a classified balance sheet as at 31 July 2015.

ISBN 978 1 4202 3058 1

CASE STUDY

The following document is typical of those received by the owner of Sydney Road Sports, Fabio Risi, during a normal trading period.

PREMIER SPORTING CO.
992 SWANSON AVENUE
SOUTH MELBOURNE 3205

ABN 81 090 222 423
TAX INVOICE 536
DATE: 5 APRIL 2015

TO: SYDNEY ROAD SPORTS
1213 SYDNEY ROAD
COBURG 3058

TERMS: 5/7 N/30

ORDER NO: 3210

Description	Qty	Unit price	Subtotal	GST	Total
Sherrin A Grade footballs	12	$50.00	$600.00	$60.00	$660.00
Mitre Elite soccer balls	14	$30.00	$440.00	$44.00	$484.00
Buffalo netballs	10	$22.00	$220.00	$22.00	$242.00
Totals			$1 260.00	$126.00	$1 386.00

Total (excluding GST)	$1 260.00
Total GST payable	$126.00
Total amount payable (including GST)	$1 386.00

PREMIER SPORTS—IF WE DON'T HAVE IT . . . WE WILL GET IT!

a State the name of the document shown.

b State the name of the business that:

i issued the document

ii received the document.

c Describe the transaction that has taken place, as evidenced by this document.

d Explain fully the credit terms in relation to this transaction.

e Why is there an order number stated on this document? Explain.

f What checks should be carried out when this document is received?

g As part of your checking, make a note of any problems you have found with this document.

h Outline the link between this document and journals for each of the two businesses involved.

i Is there a link between this document and the qualitative characteristics of accounting? Explain your answer fully.

j Make a list of the business document(s) that may be created in the future in relation to this document.

k Why are business documents known as 'source' documents? Explain your answer.

l How much would Risi have to pay in relation to this document if:

i he paid the account on 10 April 2015

ii he paid it on 1 May 2015?

(Show all workings.)

ISBN 978 1 4202 3058 1

Chapter 7

The general journal

OBJECTIVES

At the completion of this chapter, you should be able to:

- justify the need for a general journal
- outline the purpose of a general journal
- describe the format of a general journal
- prepare an entry in a general journal
- post a general journal entry to both general and subsidiary ledgers
- record a variety of transactions in a general journal
- use the general journal to establish a set of double entry records
- record the contribution of assets by a proprietor
- explain the meaning of the term 'bad debts'
- describe the circumstances that may exist when a debt becomes a bad debt
- prepare a general journal entry to write off a bad debt
- explain the two-fold effect of bad debts on the final accounting reports
- correct recording errors through the general journal.

ISBN 978 1 4202 3058 1

7.1 The need for a general journal

The previous two chapters have outlined a system of four special journals that may be used by a typical small business. The use of such journals streamlines the double entry process in the **general ledger**, as totals can be posted from all of these four journals. Unfortunately, these four journals do not cover all possible transactions that a small business may experience. Although they do cover most situations, less common transactions occur from time to time and these too must be entered in a journal of some description prior to being posted to the appropriate ledger accounts. The four special journals cover the following classifications of transactions:

1. Cash receipts journal: all cash receipts
2. Cash payments journal: all cash payments
3. Credit sales journal: sales of inventory on credit
4. Credit purchases journal: purchases of inventory on credit.

The following transactions do not fit under any of the above classifications:

- The owner contributed an office desk to the business.
- The owner withdrew an asset, other than cash, from the business for personal use.

These transactions are two examples of items that are recorded in the general journal because the four special journals cannot cater for such events. There are other types of events that are also recorded in the general journal and these are explored later in this text.

7.2 The format of the general journal

The design of the general journal must be flexible in order to cope with a variety of transactions. As it records irregular events, it cannot have special columns like those used in the special journals. The format of the general journal is very simple, as the journal's role is merely to state the double entry required for a particular transaction. As was mentioned in chapter 5, every single transaction could in fact be recorded in the general journal. However, this does not usually happen because the posting of summarised data through the special journals is much more efficient. To demonstrate the format of the general journal, the transaction of an owner contributing a vehicle to the business will be used as an example. Bob Smith contributed a vehicle valued at $20 000 to his business, operating under the name of Western Trading. A four-column **general journal** entry for this transaction would appear as in figure 7.1.

Figure 7.1 General journal format

Date	Details	General ledger		Subsidiary ledger	
		Debit $	Credit $	Debit $	Credit $
Apr 1	Vehicle Capital—Smith Vehicle contributed by owner (Memo 12)	20 000	 20 000		

ISBN 978 1 4202 3058 1

Notes to figure 7.1:

1 In the details section, the names of the two accounts affected by the transaction are stated. Traditionally, the account being debited is entered in the journal first, followed by the account to be credited. Note also that the account to be credited is indented slightly from the left margin.
2 The dollar value of the transaction is indicated in the appropriate debit or credit column.
3 As the general journal is used to record a variety of transactions, a short explanation of the events taking place is required. A **narration** is used for this purpose. It should appear at the bottom of every general journal entry to provide a brief description of the transaction. If a business document has been used to provide evidence of a transaction, this should also be noted as part of the narration. In the narration shown above, memo number 12 (also known as a memorandum) has been noted as providing the evidence of this item.
4 The two columns headed subsidiary ledger have not been used for this particular transaction. The debits and credits under the subsidiary ledger heading will only be used when a general journal entry affects either an individual debtor's account or an individual creditor's account in the subsidiary accounts of the business. Examples of such transactions are covered later in this chapter.

7.3 Posting a general journal entry

As the general journal is used to record many different types of transactions, each entry must be posted to ledger accounts individually. The posting process is therefore quite simple once the appropriate general journal entry has been created. As the journal states the actual double entry to be made, it is simply a matter of transferring the data to the relevant accounts. Using the general journal shown in figure 7.1 as an example, the posting would be done as in figure 7.2.

Figure 7.2 Posting a general journal entry to the general ledger

Vehicle a/c

		$			$
Apr 30	Capital—Smith	20 000			

Capital—Smith a/c

			Apr 30	Vehicle	20 000

7.4 The general journal and subsidiary ledgers

The general journal may be used to record unusual transactions that affect either a debtor's or a creditor's account. If a business has numerous debtors or creditors, it may have a system of subsidiary ledgers in place (as introduced in chapter 6). The general journal must therefore have the capacity to create entries not only in the general ledger but in the subsidiary ledgers as well. To demonstrate this process, the situation of a debtor being charged with an incorrect amount will be used as an example. It is possible that an amount shown on a sales invoice does not actually end up as an entry in the individual debtor's account. For example, a credit sale

ISBN 978 1 4202 3058 1

to debtor—M. Anderson on 7 November for $1450 was incorrectly entered in the credit sales journal as $1540. The GST on this transaction was also incorrect, as it is based on the value of the sale being recorded. This type of error would not be picked up by a trial balance and both accounts (sales and debtors) would be inaccurate. If the credit sales journal has been posted to the accounts, one should not go back and change the incorrect journal entry. In this situation the general journal should be used to correct the error. (Amounts in accounts are usually left unchanged, as this helps identify any possible attempts to defraud the business.) The simplest approach to solving this problem is shown in the general journal entry in figure 7.3.

Figure 7.3 General journal entry to adjust an incorrect charge to a debtor

Date	Details	General ledger		Subsidiary ledger	
		Debit $	Credit $	Debit $	Credit $
Nov 30	Credit sales	90			
	GST clearing	9			
	Debtors control		99		
	M. Anderson				99
	Correction of error. Debtor's account charged with incorrect amount (Memo 30)				

This journal entry identifies the double entry required in the general ledger accounts. The credit sales account is debited, along with the relevant GST amount. The total of these two entries would be credited to the debtors control account. The journal also states the name of the subsidiary ledger account to be credited. M. Anderson has been noted as the debtor's account to be credited in the debtors subsidiary ledger. Therefore M. Anderson's account would be credited with an entry of $99. Once this entry is posted, the accounts would all have a correct balance. As the subsidiary ledger uses a single entry approach, the general journal entry shown in figure 7.3 also satisfies the recording requirements of that ledger. This general journal entry results in the following ledger entries:

General ledger

Credit sales a/c

		$			$
Nov 30	Debtors control	90	Nov 30	Debtors control	1540

GST clearing a/c

Nov 30	Debtors control	9	Nov 30	Debtors control	xxx

Debtors control a/c

Nov 30	Sales/GST clearing	xxx	Nov 30	Sales/GST clearing	99

ISBN 978 1 4202 3058 1

Debtors subsidiary ledger

Debtor—M. Anderson					
Nov 7	Sales/GST clearing	1694	Nov 30	Sales/GST clearing	99

The general journal shown above can be used for both debtors and creditors subsidiary ledgers. Whenever an entry affects a subsidiary ledger account, it is simply recorded in the last two columns as either a debit or a credit. Transactions that only affect general ledger accounts are simply recorded in the first two columns. You should be aware of the processes involved in posting a general journal to both general and subsidiary ledger accounts.

7.5 Establishing a double entry system

Quite often, the first time a general journal is used by management is when the business is actually created. Figure 7.1 showed how the general journal might be used to record an asset contributed by an owner as starting capital. However, some owners contribute several assets to a business to make up their capital. Consider the case of Linda Carter, who commenced business on 31 March with a cash contribution of $60 000, a vehicle valued at $35 000 and equipment valued at $5 000. The assets contributed by Carter should be divided into two categories: cash and non-cash assets. This is because all cash inflows should always be recorded in a cash receipts journal. Non-cash assets, by definition, do not involve a flow of cash. Therefore, they cannot be recorded in a receipts journal and must be entered in the general journal of the business. Thus, the entries in figure 7.4 would be recorded as a result of Carter's capital contribution.

Figure 7.4 Journal entries for capital contributions

Cash receipts journal

Date	Details	Rec. no.	Bank $	Cost of sales $	Sales $	Sundries $	GST $
Mar 31	Capital		60 000			60 000	

General journal

Date	Details	General ledger Debit $	General ledger Credit $	Subsidiary ledger Debit $	Subsidiary ledger Credit $
Mar 31	Vehicle	35 000			
	Equipment	5 000			
	Capital		40 000		
	Assets contributed by owner at commencement of business (Memo 01)				

Note that the principles of double entry have been upheld in this general journal entry because the total debits equal the total credits. The journal entry shown above, plus the cash receipts journal shown previously, result in the following general ledger accounts being created:

Cash at bank a/c

		$			$
Mar 31	Cash receipts	60 000			

Vehicle a/c

Mar 31	Capital	35 000			

Equipment a/c

Mar 31	Capital	5 000			

Capital a/c

			Mar 31	Cash at bank	60 000
				Vehicle	35 000
				Equipment	5 000
					100 000

The entries shown above are used to establish an accurate snapshot of the business when first established by the owner. The cash at bank account is created via the initial entry in the cash receipts journal. The non-cash assets are created via the general journal entry. The three assets contributed by the owner are then accumulated in the capital account, thus reflecting the fact that the owner has commenced trading with $100 000 starting capital.

In addition to the assets being invested into a business when it is first set up, an owner may also bring into a firm some established debts. In the Linda Carter example, the vehicle may have been financed by a loan of $18 000. This means that the owner does not have a net worth of $100 000. When the liability is taken into account, the owner's net worth becomes $82 000 ($100 000–$18 000). The opening general journal entry then changes as shown in figure 7.5.

Figure 7.5 Opening general journal entry with liability included

General journal

Date	Details	General ledger Debit $	General ledger Credit $	Subsidiary ledger Debit $	Subsidiary ledger Credit $
Mar 31	Vehicle	35 000			
	Equipment	5 000			
	Loan—NAB		18 000		
	Capital		22 000		
	Assets and liabilities at commencement of business (Memo 01)				

ISBN 978 1 4202 3058 1

If a liability is contributed to a business, along with a number of assets, this will have a negative effect on the owner's capital account. This should occur, as the net worth of the business to the owner has been reduced. Carter's capital account has been prepared below, this time taking into account the liability that has also been created by the owner.

Capital a/c

		$			$
Mar 31	Loan—NAB	18 000	Mar 31	Cash at bank	60 000
				Vehicle	35 000
				Equipment	5 000

Another possible scenario is a business that has been operating for a number of years on single entry accounting but has now decided to establish a set of double entry books. In this situation the values for all accounts, as shown in the balance sheet, can be used as the data to be entered in the general journal.

The details of Siliato's Sports have been provided below:

Assets		*$*	*Liabilities*	*$*
Cash at bank		4 000	GST clearing	1 000
Debtor—N. Pilon		1 000	Creditor—Ace Sports	2 000
Debtor—E. Gulbis		2 000	Loan—OK Finance	5 000
Stock control		18 000		
Shop fittings	24 000			
Accumulated depreciation	7 000	17 000		

The proprietor of Siliato's Sports, Adrian Siliato, decided to introduce a full double entry system, including control accounts for debtors and creditors, on 1 July 2015 using the above-stated values. When setting up double entry for an existing business, it should be noted that the profit and/or drawings for the previous reporting period are not required in the **opening journal entry**. The general journal required to set up a double entry for Siliato's business is shown in figure 7.6 on the next page.

Note how the general journal entry in figure 7.6 uses the accounting equation to determine the capital figure of the owner. The account for accumulated depreciation is shown as a credit entry along with the liabilities of the firm, as they both reduce the equity of the owner in the business. Once this entry is posted to the general ledger, the double entry system is officially started and all the usual journals can then be used to record the daily transactions of the business. Note also that, as this journal entry is to establish a double entry system for an existing business, the treatment of cash at bank is different from that in the previous example shown. In Siliato's case, the business is not receiving cash. The journal entry is simply stating the cash balance at a particular point in time. If the business entity is actually receiving a cash injection from the owner, it must always be recorded in the cash receipts journal. It is important to keep in mind that balances must be established for both the control accounts and the individual debtors' and creditors' accounts. The journal entry prepared above establishes the total amount owed by

ISBN 978 1 4202 3058 1

Figure 7.6 General journal entry to commence double entry system

General journal

Date	Details	General ledger Debit $	General ledger Credit $	Subsidiary ledger Debit $	Subsidiary ledger Credit $
Jul 1	Cash at bank	4 000			
	Debtors control	3 000			
	N. Pilon			1 000	
	E. Gulbis			2 000	
	Stock control	18 000			
	Fittings	24 000			
	Accumulated depreciation—fittings		7 000		
	GST clearing		1 000		
	Creditors control		2 000		
	Ace Sports				2 000
	Loan—OK Finance		5 000		
	Capital		34 000		
	Assets contributed by owner at commencement of double entry system (Memo 76)				

debtors as the balance of the debtors control account, with the individual balances also being established against each individual debtor in the subsidiary ledger column. The same process can also be used to establish the balance of both the creditors control account and the individual accounts in the creditors subsidiary ledger. When such entries are made, it is important to ensure that the debit made to the debtors control account equals the total of the individual debtors' balances. The same check should be made in relation to the creditors control account. Having established balances for both the control accounts and the subsidiary ledger accounts, the debtors' and creditors' accounts are now ready for day-to-day recording in the usual way.

7.6 Recording the contribution or withdrawal of assets by an owner

The most common asset contributed to or withdrawn from a business by a proprietor is cash. When an owner contributes cash it should be recorded in the cash receipts journal. Similarly, if an owner withdraws cash it is a cash payments journal entry. However, there may be times when an owner decides to contribute or withdraw an asset other than cash. Once again, this creates an item that does not fit into any of the four special journals and therefore the general journal must be used. Consider the following events:

Jul	1	The owner contributed an office desk to the business. The desk had an **agreed** valued of $200
	2	The owner withdrew stock with a value of $100 for personal use

These transactions can all be recorded in the general journal and appear as shown in figure 7.7.

ISBN 978 1 4202 3058 1

Figure 7.7 General journal entries for the contribution or withdrawal of assets other than cash

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Jul 1	Office furniture Capital Owner contributed an office desk to the business (Memo 12)	200	200		
Jul 2	Drawings Stock control Owner withdrew stock for personal use (Memo 13)	100	100		

Whenever an owner puts an asset into a business, the particular asset must be debited and capital credited. If an asset is withdrawn, the opposite occurs. That is, **drawings** is debited (to record the negative effect on owner's equity) and the particular **asset** is credited. However, the case of stock withdrawals may need clarification. When a firm buys its stock, it records a debit entry to **stock control**. If the owner withdraws some of this stock, the asset account must be reduced to reflect the decrease that has occurred in the amount of stock on hand. It is important to always keep in mind that the stock control account should show the cost of goods available for sale at any time during the reporting period. Therefore, if a decrease in stock on hand occurs because of a withdrawal by the owner, this transaction must result in a credit entry to the stock control account.

Using agreed value for assets

In the above example the owner contributed an office desk to the business valued at $200. If the business actually purchased the office desk from someone else, the historical cost of the asset would be used and this would be supported by a source document such as an invoice or cheque butt. However, in this case the business did not buy the asset. The owner originally purchased the desk and has now simply contributed the asset from their personal resources to the business entity. Therefore, there is no source document available to verify the cost of the asset to the business. The owner may have a document to prove the cost of the asset when it was first purchased for personal use. However, the item may now be several years old and therefore its original cost has no relevance to the business. When a second-hand asset is contributed to a business by its owner an estimate of its value is made in an attempt to provide a relevant value for the balance sheet. This is known as the agreed value of an asset and it is based on a reasonable estimate of its current market value. Usually a business owner would make this estimate under the advice of their accountant and/or an expert in the appropriate field. For example, published guides are available to assist an owner when estimating the value of a second-hand vehicle. It is important to appreciate that such estimates will not satisfy the demands of reliability as there are none of the usual source documents available to verify the actual value of the asset at the time it was contributed to the business. However, in order to satisfy the demands of relevance, a reasonable estimate may be adopted as the agreed value of an asset so that meaningful information can be reported in the balance sheet of the business.

7.7 Donations of stock and business advertising

Another example of an unusual transaction that does not fit in any of the four special journals is the situation where a business gives away some of its stock for advertising purposes. For example, many small business owners donate goods from their stock to local schools or sporting groups. They may do so to assist such groups with fundraising, or it may be done as part of a sponsorship deal. Although such donations are often a gesture of goodwill towards the local community, they also represent advertising for the business. Whether a sign is erected in the clubrooms of a cricket club or the business is mentioned in a school's newsletter, there is usually a two-way relationship between the business and the group gaining the benefit from the donated goods. The problem is how such an event should be recorded in the books of the business. Assuming that the business does receive some material benefit from such advertising in the local community, it would be logical to create an Advertising account. However, it must be kept in mind that such a form of advertising has not actually been paid and therefore it does not involve a cash flow. The business has simply given away stock items to someone else. The stock levels of the business have obviously decreased and therefore the following general journal entry is the result.

Figure 7.8 General journal entry for advertising via donation of stock items

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
May 1	Advertising Stock control Owner donated 2 footballs @ $50 each to the local school (Memo 31)	100	100		

This general journal creates an advertising expense account of $100 and decreases the stock control account with the cost price of the goods given to the local school. This ensures that the stock control account is accurate and that the goods sacrificed by the business are treated as expenses. This is correct accounting treatment because the business has suffered a loss of economic resources, which leads to a decrease in the equity of the owner.

7.8 Accounting for bad debts

Whenever a trading firm supplies goods to a customer on credit, the risk of non-payment is always a possibility. A business may investigate a customer's background and receive information in regard to a credit rating, but circumstances can change and sometimes what looks like a good risk turns into a problem. Slow-paying debtors should be reminded of their obligations by telephone or perhaps by reminder letters or emails. Sometimes legal action may be used as a threat to get customers to pay. However, such tactics do not succeed in all cases and most businesses at some time face what is known as a bad debt. A **bad debt** is a debtor that management deems will not pay the amount outstanding. This decision may be brought about because of legal advice received from the debtor's lawyer. Such legal advice may report bankruptcy in extreme cases. A different scenario is the one where a debtor can no longer be located. Sometimes people move interstate to avoid their debts and cannot be traced. Rather than spend hundreds or thousands of dollars chasing someone around the country (or perhaps the world) a business may choose to write off the debt as uncollectable. This would be the usual course of action if the amount owing were only a small amount. If the debt involves thousands of dollars, management may well decide to try to catch up with the reluctant payer.

If management decides to write off a debtor's account, an entry is made via the general journal. As a debtor is an asset and this asset is no longer expected to be turned into cash, it must be closed off. As the business has suffered a loss in the form of the non-paying debtor, an expense account must be created. To demonstrate this, the case of a debtor by the name of I.M. Shiftee will be used as an example. On 4 January 2015 a credit sale of $200 was made to Shiftee. Despite repeated telephone calls and reminder letters, Shiftee does not make a payment on his account during the year. Information is received during December to the effect that Shiftee has disappeared interstate and management has now decided to write the account off as irrecoverable. The following general journal entry is the result:

Figure 7.9 General journal entry to record a bad debt

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Dec 31	Bad debts	200			
	Debtors control		200		
	I.M. Shiftee				200
	Debtor's account written off as irrecoverable (Memo 67)				

When posted to the general ledger, the above entry has the effect of closing the debtor's subsidiary account with the credit entry. The credit entry in the general ledger decreases the debtors control account by $200. The debit entry creates the bad debts account, which is classified as an expense. The relevant ledger accounts are shown below:

General ledger

Debtors control a/c

		$			$
Jan 31	Sales/ GST clearing		Dec 31	Bad debts	200

Bad debts a/c

Dec 31	Debtors control	200			

Subsidiary ledger

I.M. Shiftee a/c

		$			$
Jan 31	Sales/ GST clearing	200	Dec 31	Bad debts	200

The double entry to write off a bad debt has a two-fold effect on the final accounting reports of a business. First, it reduces the assets of the firm because the debtor's account is eliminated. The other effect comes via the income statement. As bad debts is an expense account, it has the effect of reducing the net profit of the firm for the period. A consequence of this is that the net worth (or owner's equity) of the firm is also reduced in the balance sheet. Treating a bad debt as an expense complies with SAC2. A credit sale is reported as revenue in a firm's income statement. This is done on the assumption that the revenue will ultimately be collected in cash. If the sale subsequently becomes a bad debt, then the revenue recognised should be negated by an expense because the firm has suffered an economic sacrifice. In the above example, the bad debt occurred in the same period as the credit sale and therefore the bad debts expense negates the credit sale that would be shown as part of the period's sales revenue.

Another possible situation where a debtor may be written off is where a part payment of the amount owing is received. For example, on 5 April management received legal advice that one of its debtors (Y. Settle) had been declared bankrupt and was only paying 30 cents in the dollar on all debts. A cheque for $300 was enclosed with the correspondence and Settle's account currently has a balance of $1 000. Based on the legal advice received, the account is to be written off as a bad debt. The $300 cash received should be recorded in the cash receipts journal in the usual way. The general journal entry shown in figure 7.10 would then be required.

Figure 7.10 General journal entry to record a bad debt

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Dec 31	Bad debts	700			
	Debtors control		700		
	Y. Settle				700
	Debtor's account written off as irrecoverable after receiving 30 cents In the dollar (Memo 84)				

ISBN 978 1 4202 3058 1

In this case the general ledger would include the following entries:

General ledger

Debtors control a/c

		$			$
Apr 1	Balance	xxx	Apr 30	Bad debts	700

Bad debts a/c

Apr 30	Debtors control	700			

The above double entry reduces the overall amount owed by debtors at the end of the month. However, it is also important to close off the individual account of Y. Settle as this debtor is not expected to pay any cash in the future. Therefore the entry will be recorded as follows (note that the amount of $300 has been recorded as a cash receipt in the usual manner).

Debtors subsidiary ledger

Debtor—Y. Settle a/c

		$			$
Jan 1	Balance	1 000	Apr 30	Cash at bank	300
				Bad debts	700
		1 000			1 000

The reporting of bad debts in the income statement is quite straightforward. As bad debts is an expense, it should be listed under the heading of *Other expenses* after gross profit has been determined. When a firm deals on credit, several expenses may be incurred as a result. Items such as discount expense, legal fees and debt collection expenses may all be incurred in addition to bad debts expense. Therefore, the classification of bad debts in an income statement is based on SAC2. Bad debts are expenses, as they represent a loss of economic resources by the business entity. Therefore, bad debts should be reported as an expense each reporting period and will ultimately decrease the equity of the owner.

7.9 Correcting recording errors through the general journal

One other use of the general journal is to correct errors made in the recording process; this is called **correcting entries**. When accounts are balanced and a trial balance prepared, certain errors may be detected that need to be rectified. If incorrect debits or credits are located in the accounts, they should not be erased or covered up with correction fluid. This is unacceptable in accounting, as it makes the detection of fraud most difficult. Therefore, if an error is detected it must be corrected by making another journal entry. As errors are unpredictable in their nature, this chapter will not cover all possible mistakes in ledger recording. A variety of common errors can be demonstrated, along with the required corrections. The principles introduced can then be used to correct other types of recording errors.

ISBN 978 1 4202 3058 1

Consider the following errors that were detected in the books of Lloyd's Locks:

1. A payment of $80 for advertising was incorrectly debited to insurance.
2. An invoice for $40, plus GST of $4, was charged to B. Andrews but should have been charged to P. Andrews.
3. A payment of $123 for petrol was recorded in the cash payments journal as $132.

When correcting an error through the general journal, two things have to be achieved. First, the error(s) in the books must be removed. This may mean making a credit entry to counteract an incorrect debit (or vice versa). Secondly, the missing correct entry must be introduced into the books. This can be shown by providing the entries necessary to correct the above-named errors, as in figure 7.11.

Figure 7.11 General journal showing corrections of recording errors

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Nov 30	Advertising Insurance Correction of error—advertising debited to insurance (Memo 11)	80	80		
	Debtor—P. Andrews Debtor—B. Andrews Correction of error—incorrect debtor charged (Memo 12)			44	44
	Cash at bank Petrol expense Correction of error—payments of $123 recorded as $132 (Memo 13)	9	9		

In the first two entries shown in figure 7.11, the credit entry is used to eliminate an error. Insurance has been credited because of an incorrect debit. Debtor—B. Andrews has also been credited to remove an error. The debits in the first two entries introduce the debit entry that should have been made in the first place. When these two entries are posted, the books will reflect an accurate picture of events. Note that in the second entry no adjustments are required to either the debtors control account or the GST clearing account. This is because the error was made with the credit entry simply being made against the wrong debtor. Under these circumstances both the debtors control and the GST clearing accounts would be accurately recorded.

The third entry is slightly different. When an incorrect figure has been entered, there are two possible ways to correct the error. In this case the cash payments journal contained the error. If totals have already been posted, the error will already be in the general ledger accounts. In such circumstances, the above journal entry is necessary to correct the mistake. As there is $9 difference between the correct amount and the error, the journal entry will eliminate the error. However, if the cash payments journal was correct but the debit to the petrol expense

ISBN 978 1 4202 3058 1

account was incorrect, it is permissible to simply rule a line through the incorrect figure and write in the correct number above the error. Following the general principle outlined above, numbers are not erased from the books. Any corrections should be clearly visible, including the incorrect amount entered originally. Hopefully, a set of ledger accounts will not contain many errors but, when they are found to exist, a formal general journal entry is the preferred method of correction. This leaves no doubt as to what has been corrected in the ledger accounts and becomes part of the systematic approach to accounting whereby all entries in accounts can be traced back to their source via a journal entry.

› GLOSSARY OF TERMS

agreed value an estimate of an asset's value which is used when a second-hand asset is contributed to a business by its owner

bad debt an amount owed by a debtor that is written off because it is deemed to be irrecoverable. That is, the debt is not expected to be received in the future.

correcting entry a general journal entry made in order to correct an error found to exist in the books of a business.

four-column general journal a modified version of a general journal, with two columns being used for the general ledger accounts and two other columns being used for subsidiary account entries.

general journal a record used to note unusual financial events that cannot be recorded in any of the special journals.

narration a note used as part of a general journal entry that is used to explain the nature of the transaction being recorded.

opening journal entry a general journal entry made on the first day of business or on the first day of a double entry recording system being established. This entry creates balances for assets, liabilities and the owner's equity account.

ISBN 978 1 4202 3058 1

Summary questions

1. Write a brief description of the purpose of a general journal.
2. Does a small business need a general journal if a system of special journals is already in place? Explain your answer.
3. Describe the key sections of a general journal.
4. State four different types of transactions that should be recorded in a general journal.
5. Is the information in a general journal posted to ledger accounts in the same way as a special journal? Explain your answer fully.
6. What modifications are necessary to the general journal if a system of subsidiary ledgers is in use? Justify your answer.
7. 'A proprietor's drawings are always recorded in the cash payments journal.' Do you agree? Explain your answer fully.
8. Explain what is meant by the term 'agreed value' and describe the circumstances when an agreed value may be used in accounting
9. Agreed values should never be used as there are no source documents to support them. Do you agree? Discuss.
10. A conflict may exist between *reliability* and *relevance* if assets are valued at agreed values. Explain how this conflict may occur and explain which of the two qualitative characteristics of accounting should be followed.
11. If a business owner donates stock items to a local community group, an expense item is created. Do you agree? Explain your answer fully.
12. Carlson's Computer Store donated two computers to Carlton Primary School. State the two-fold effect that this event has on the balance sheet of the business.
13. Explain the circumstances that may bring about the need to record a bad debt.
14. State the double entry needed to record an amount owing from a debtor as a bad debt.
15. Describe the two-fold effect that bad debts have on the balance sheet of a trading business.
16. Fogarty's Furniture Store has a debtor, Jo Hotski, who owes $400. Legal advice has been received that only 20 cents in the dollar will be received by Fogarty's Furniture because Hotski has been declared bankrupt. Show the effect of writing off the irrecoverable amount owed by Hotski as a bad debt on the balance sheet by completing the following table:

	Increase $	Decrease $	No effect
Assets			
Liabilities			
Owner's equity			

17. What is the acceptable accounting procedure when an error is detected in a general ledger account? Explain why such a procedure is followed.

ISBN 978 1 4202 3058 1

Practical exercises

[Exercise 7.1]

For each of the following, state the journal that would normally be used to record the details of each transaction:

a bought goods for cash
b the owner contributed a vehicle to the business
c charged a debtor for goods provided
d paid wages
e donated goods to a local charity
f received cash from debtor
g took some stock home for personal use
h a debtor has been declared bankrupt and is to be written off
i bought goods on credit
j paid GST owing to the taxation office.

[Exercise 7.2]

Lynne Garth has decided to open a business trading as L.G. Lawnmowers. On 1 April 2015 she contributed cash of $20 000, a vehicle with an agreed value of $32 000 and mowing equipment valued at $12 000. These details were noted on memo 101.

a Prepare the cash receipts journal entry and the opening general journal entry for the business on 1 April.
b State the accounting equation of the business as at 1 April 2015.

[Exercise 7.3]

John Di Meglio commenced business on 1 March 2015, trading as Western Wholesalers. He contributed the following assets: cash $18 000, vehicle $36 000 and equipment $23 000. John financed the vehicle with a loan from the National Australia Bank for $7 000, which is now the responsibility of the business. All details were recorded on memo 201.

a Prepare the opening journal entries for Western Wholesalers.
b Prepare a balance sheet for the business as at 1 March 2015.
c Explain how Di Meglio would have determined the value of $36 000 for his vehicle.

[Exercise 7.4]

Aaron Turner is the owner of Turner's Gift Shop and he has used single entry accounting since he started the business. A friend of his has suggested that he should convert to double entry accounting. Using the information that follows, prepare the opening general journal entry on 1 August 2015 to establish a set of books under double entry accounting.

ISBN 978 1 4202 3058 1

Assets and liabilities as at 31 July 2015

	$		$
Cash on hand	200	GST clearing	500
Cash at bank	2 200	Creditors	3 600
Debtors	3 200	Loan—A.G.C.	7 500
Stock	44 300	Loan—National Australia Bank	12 400
Display equipment	12 600		
less accumulated dep'n	(2 600)		
Computer	3 200		

[Exercise 7.5]

Lauren's Hairdressing Supplies has been operating for a number of years using a system of single entry accounting. She has decided that the business is too involved for single entry and wants to set up a full set of double entry records. The balance sheet of the firm as at 30 June 2015 is provided below:

Lauren's Hairdressing Supplies: balance sheet as at 30 June 2015

Assets	$	$	*Liabilities*	$	$	$
Debtor—T. Tran		200	GST clearing		300	
Debtor—A. Turner		460	Cash at bank		1 000	
Stock control		40 340	Loan—MT Finance		14 700	16 000
Shop fittings	20 000		Owner's equity			
– Accum. dep'n	6 000	14 000	Capital	45 000		
Office equipment	9 000		+ Net profit	4 500	49 500	
– Accum. dep'n	2 500	6 500	– Drawings		4 000	45 500
		61 500				61 500

Prepare the necessary general journal entry to establish a double entry system on 1 July 2015.

[Exercise 7.6]

The owner of Ed's Electricals, Ed Bundy, had the following transactions during January 2015:

Jan 3 Bundy contributed a computer from his home to the business. The computer had an agreed valued of $2300 (Memo 101)

Jan 24 Bundy needed to do some repairs at home on his personal possessions. He took from the business some stock items that had originally cost the firm $120. These items were going to be sold for $250 (Memo 102).

Prepare the general journal entries to record each of these events.

ISBN 978 1 4202 3058 1

[Exercise 7.7]

Claire Marshall is the owner of Marshall's Music Store. She recently received a request from Brighton Primary School to donate some goods for the school's annual raffle. She has decided that it may be beneficial for her business to do so, as the Principal has guaranteed advertising space in the school newsletter. As a past student of the school, Marshall also is quite willing to assist in any way possible. Therefore, on 31 March 2015, Marshall takes stock from her shelves that is selling for a total of $800 and notes the details on memo number 162. Marshall also advises that she applies a mark-up of 100% on all goods sold.

a Prepare the general journal required as a result of the above information.

b State the two-fold effect of your entry on the accounting equation of Marshall's Music Store.

[Exercise 7.8]

Bill's Toy Store is owned and managed by Bill Teggelove. The local Lions Club has contacted a number of local businesses, as they are looking for donations of toys and sporting goods. Teggelove is very keen to help out, as he sees it as a good way to build some goodwill for his business with the local community. After checking his stock levels, he decides to provide the following goods, and notes their details on office memo number 218 (issued 10 April 2015):

Quantity	Item	Cost price	Selling price
2	Bicycles	$150.00	$295.00
2	Tricycles	$45.00	$89.00
3	Cricket sets	$15.00	$25.00

a Prepare the general journal entry to account for the donated goods.

b A friend of Teggelove's has suggested that, if he donates any goods from his business, they are supposed to be recorded as drawings because they are no longer available for sale. Do you agree with his friend's statement? Explain your answer fully, with reference to an accounting principle and the SAC2 definition of the elements of accounting.

[Exercise 7.9]

Eva Harrington is a debtor of the North Sports Store who purchased goods on 7 September 2014 for $200. No payment has ever been made on the account. The management of the firm has tried to locate Harrington for several months without success. On 30 June 2015 the decision was made to write off the debt as irrecoverable and this was noted on memo 218. The owner of North Sports Store uses a four-column general journal.

a Prepare the general journal entry to write off Harrington's debt.

b Post the bad debts entry to the debtors control account, the debtor—Harrington account and the bad debts account.

c Explain the effect on the income statement and the balance sheet of the business if the bad debts entry were not made on balance day.

ISBN 978 1 4202 3058 1

[Exercise 7.10]

A credit sale of $480 was made 18 months ago to a company named Cheetem Pty Ltd. No payment has been made by the debtor since this time. Management has been informed by Cheetem's bank that the firm has collapsed and that the owner cannot be located. It is believed that he has disappeared interstate. All details were noted on memorandum number 121.

a Prepare the general journal entry to write off Cheetem's debt on 10 October 2015.

b Post your general journal entry to both the debtors control account and the bad debts account in the general ledger.

c Prepare the individual account for Cheetem Pty Ltd in the debtors subsidiary ledger.

d Outline the steps a business should follow before granting credit to customers.

[Exercise 7.11]

The subsidiary ledger of Footscray Furniture included the following account:

Debtor—D. Pendable

		$			$
Mar 31	Balance	450			

The owner of Footscray Furniture has just received legal advice to the effect that D. Pendable has been declared bankrupt. The correspondence received also indicates that only 40 cents in the dollar will be paid and a cheque has been enclosed for this amount. Memo no. 312 notes all details regarding this payment. Total cash received from all debtors during March was $14 000. The balance of debtors control at the start of March was $21 000.

a Prepare the following general ledger accounts to show the receipt of cash from the debtor and the bad debts entry: debtors control and bad debts.

b Prepare the subsidiary ledger account for D. Pendable.

c State three tactics management may choose to adopt when a debtor is overdue with a payment.

[Exercise 7.12]

The following information relates to S. Case, a credit customer of Domestic Appliances.

12 July 2014	Credit sale of $380, plus $38 GST
14 August 2014	Credit sale of $820, plus $82 GST
17 April 2015	Cash receipt of $100
31 December 2015	Legal advice received to the effect that S. Case has been declared bankrupt. All creditors are to be paid 20 cents in the dollar. A cheque was received for 20 per cent of Case's balance. The remainder of the account is to be written off as a bad debt (Memo 34)

a Prepare the debtor—S. Case account as it would appear in the subsidiary ledger of Domestic Appliances. The account should include all relevant entries from 12 July 2014 to 31 December 2015.

ISBN 978 1 4202 3058 1

b In light of the above information concerning the S. Case account, comment on the accuracy of the income statement that would have been prepared by Domestic Appliances for the year ended 31 December 2014.

[Exercise 7.13]

Montrose Exports has a debtor on its books who has recently disappeared without trace. Memo 37 was written out in relation to the debtor (named Scott Nodo) and the amount owing was $660. Montrose Exports uses a control account to summarise its numerous debtors in the general ledger, with the balance of the control account being $5400 on 30 June 2015.

a Using a four-column general journal, prepare the journal entry required on 30 June 2015 to write off the amount owing by Scott Nodo as a bad debt.

b Prepare the following general ledger accounts: debtors control, bad debts.

c Prepare the subsidiary account for debtor—S. Nodo.

[Exercise 7.14]

The following transactions occurred between Encore Music Store and one of its credit customers, N. Kelly. The owner of the music shop uses control accounts for both debtors and creditors.

2015	
Jul 3	Credit sale of musical instruments $4 200, plus GST of $420 (cost price $2 150)
9	Credit sale of musical equipment $2 700, plus $270 GST (cost price $1 230)
15	Kelly made a payment on his account $500
31	Legal advice was received from Kelly's solicitor advising Encore Music that its client has been declared bankrupt. All creditors of Kelly are to be paid 35 cents in the dollar. Memo 97 was completed to record all such details.

a Using a four-column general journal, prepare the entry required to write off Kelly as a bad debt on 31 July 2015.

b Given that total debtors on 31 July 2015 were $12 720, prepare the control account and post the bad debts entry to the control account.

c Prepare the N. Kelly subsidiary account, showing all entries for the month of July 2015.

[Exercise 7.15]

At the end of November 2015 the following errors were found in the general ledger of Paint 'n' Paper. Prepare general journal entries to correct these mistakes.

a A payment of $400 for wages was incorrectly debited to drawings.

b A receipt of $100 from debtor—J. Blake was recorded as being received from J. Black.

c A debit of $540 to insurance was entered in the payments journal as $450.

d Cash sales of $200 were incorrectly credited to commission revenue.

e A payment of $150 for the hire of equipment was incorrectly debited to the equipment account.

ISBN 978 1 4202 3058 1

[Exercise 7.16]

Prepare the required general journal entries to ensure the correct recording of the following information in the books of Tucker's Toy Store on 30 November 2015.

- **a** An office desk purchased for cash to use in the firm's office was accidentally debited to stock control (Memo 41). The cost of the desk was $600.
- **b** The owner contributed office furniture to the business from his personal assets. The furniture had an agreed value of $500 (Memo 42).
- **c** J. Barton paid the firm $480 on account. However, an entry was made against debtor—J. Burton (Memo 43).
- **d** Stock that had cost the firm $100 was donated to the local school for a fete. This has been incorrectly debited as drawings by the proprietor (Memo 44).
- **e** A payment of advertising for $191 was incorrectly recorded in the cash payments journal as insurance of $119 (Memo 45).
- **f** A debtor of the business has to be written off as a bad debt. The amount owed by C.U. Later was $600 but a cheque was received, due to legal advice, as final payment. C.U. Later's creditors were all to be paid 15 cents in the dollar on all debts.

[Exercise 7.17]

The following information relates to a small business trading under the name of St. Albans Classic Furniture. Prepare general journal entries (if necessary) for each of the items listed.

- **a** On 12 March 2015 the owner contributed a fax machine to the business from her home. The machine had an agreed value of $750 (Memo 81).
- **b** Registration and insurance was paid on the firm's delivery van during the year. The total cost was $820. On 14 June 2015 it was discovered that the full amount had been debited to the delivery van account (Memo 82).
- **c** On 7 July 2015 the owner found that a cheque written out in late June was incorrectly recorded in the cash payments journal. The cheque was for courier fees totalling $248. However, the journal entry shows a payment of $284 (Memo 83).
- **d** On 19 July the owner donated some goods to the Salvation Army. The goods had originally cost $500 and usually sell for $950. The owner was unsure how to treat such an item and decided to treat it as a withdrawal for personal use (Memo 84).
- **e** The business sent a cheque for $1280 to a trade creditor called McDonald's Furniture on 31 July. Unfortunately, this cheque was recorded in the payments journal as being to MacDonald's Advertising Agency, a business contracted to design advertising for St. Albans Classic Furniture (Memo 85).
- **f** A loan application was submitted to the bank in early August. The business requested an amount of $25 000 to buy a second delivery van. On 8 August the owner realised that she had made an error, as she had intended to ask for a loan of $28 000.
- **g** A piece of furniture withdrawn by the proprietor on 17 August was accidentally recorded as a cash sale. The item taken home originally cost $90 and usually sells for $160, plus GST of $16 (Memo 86).

ISBN 978 1 4202 3058 1

Chapter 8

Accounting for the goods and services tax (GST)

OBJECTIVES

At the completion of this chapter, you should be able to:

- describe how the GST is applied to business transactions
- explain the impact of the GST on recording and reporting
- prepare the four special journals, including GST transactions
- post journals, including GST transactions, to general ledger accounts
- prepare a GST clearing account
- classify the GST clearing account
- state the double entry needed to record the payment of a GST liability.

Note: this chapter does not provide an extensive coverage of the GST. It is merely an introduction to the tax and the way it affects the records of a business in a double entry system. This chapter has been written to suit the requirements of the VCE Accounting course that has been accredited for 2012–2016, and should not be viewed as providing advice on how to account for the GST in a real business. Professional guidance should be sought in reference to legal requirements for the recording and reporting of GST transactions for businesses registered for GST.

ISBN 978 1 4202 3058 1

8.1 The GST: an introduction

The **goods and services tax (GST)** has been mentioned in several chapters already in this text. This chapter is intended to bring these various elements together so that the overall demands of accounting for GST can be fully appreciated. The GST was introduced by the Australian government in July 2000. It was planned as a general tax on all business transactions and was applied at the rate of 10% per annum when it was introduced. The tax was at first subject to great debate. It was originally intended to apply to all service and trading businesses. After great pressure, the government of the day decided to exempt some items, such as fresh food, from this new form of taxation.

Small business owners who are registered for the GST now have demands placed on them by the Australian Taxation Office to ensure that all GST transactions are recorded and reported in a particular way. This requirement means that accounting records have to be modified to take into account the GST both paid (**GST payments**) and collected (**GST receipts**) by the business entity.

8.2 GST and the sales journal

Many small businesses first experienced the GST when they made their first sale in July 2000. Trading businesses selling stock to customers were faced with collecting a 10% tax on all their sales. This has to be accounted for, as the tax is collected by the business on behalf of the federal government. After a period of time, the GST collected by a business is paid to the government. This may be done monthly, quarterly or annually. Therefore, when a credit sale is made to a debtor, the sales journal will require a simple modification. Consider the following transactions for a trading firm that uses perpetual inventory:

Jul 4	Sold goods on credit to Jack Canny for $550 (including GST of $50). The cost price of this sale was $250
19	Credit sale to Gary Schickerling for $200 (plus GST of $20). Cost of sale $95
26	Made a credit sale to Sue McKenna for $440 (including GST of $40). Cost price $195

Before making any entries, you need to determine if the GST has already been included in the transaction data given. In the three transactions shown above, it has been stipulated that the selling price includes the GST. This is the usual practice in most real businesses. To calculate the GST collected, simply divide the selling price by 11. The transaction on 4 July was for $550, so the GST collected is $50 ($550/11). This can easily be checked by applying the tax rate and verifying that the selling price is correct. That is, 10% of $500 = $50 GST. The selling price including GST then becomes $500 + $50 = $550. Using the three transactions shown above, the sales journal for this business would be prepared as shown in figure 8.1 on the next page.

Before the GST was introduced, a sales journal could simply show the cost price and selling price of a credit sale. With the introduction of the GST it is necessary to record cost price, selling price, GST applicable and the total amount of debt created by the debtor as a result of the sale. Therefore the sales journal must be modified to include an additional column for the GST, a column for Sales and one for the Total to record the amount owing, including the 10% GST. The Cost of Sales column is still used to record the cost of sales per transaction, as shown in previous chapters of this text. The sales column is used to record the selling price charged before adding the GST. Then the GST is stated and the debtors column is used to record the price charged to

ISBN 978 1 4202 3058 1

Figure 8.1 Sales journal to record GST charged to debtors

Date	Debtor	Inv. no.	Cost of sales $	Sales $	GST $	Debtors control $
Jul 4	J. Canny	34211	250	500	50	550
19	G. Schickerling	34212	95	200	20	220
23	S. McKenna	34213	195	400	40	440
31	Totals		540	1 100	110	1 210

the relevant debtor, including a GST component. However, now the GST has been added to the amount charged to the debtor. This amount would be shown on the invoice issued to the customer at the time of the sale. The GST amount must be equal to 10% of the sales column and one-eleventh of the total column. The GST amount must be shown as a separate figure, as this amount actually belongs to the government. The sales journal is used to show not only how much is being charged to a credit customer, but also how much GST the business is collecting on behalf of the government. Using the sales journal in figure 8.1 as an example, the general ledger accounts would be prepared as follows:

General ledger

Cost of sales a/c

		$			$
Jul 31	Stock control	540			

Stock control a/c

Jul 1	Balance	xxx	Jul 31	Cost of sales	540

Debtors control a/c

Jul 31	Credit sales/GST clearing	1 210			

GST clearing a/c

			Jul 31	Debtors control	110

Credit sales a/c

			Jul 31	Debtors control	1 100

The cost price of inventory sold is recorded in the usual fashion. The cost of sales of $540 has simply been debited to cost of sales and credited to stock control. There is no change in this procedure. The treatment of the price charged to the debtor is slightly different. The customer is charged the full amount, including GST. Therefore, the debtors control account is debited with the full amount of $1 210. However, not all of this is revenue to the business. The actual value of the credit sales is only $1 100, which becomes $1 210 when 10% GST is added (10% of $1 100 = $110, so the price charged is $1 100 + $110 = $1 210). Therefore, the debit of $1 210 to debtors is covered by two credits: one of $1 100 to the revenue account sales and one of $110 to the

ISBN 978 1 4202 3058 1

GST clearing account (which represents the **GST liability** of the business to the government). This is the amount of tax collected by the business on its sales so far. (A full explanation of the workings of this account appears in section 8.4.) When posting the sales journal to the general ledger, the credit required for the Sales account is therefore the selling price prior to the application of the 10% tax.

8.3 GST and the purchases journal

In addition to recording GST charged on their sales, business owners must record the GST paid on their purchases. If a business purchases inventory on credit, the purchases journal will also require a minor modification. In this case, the purchaser will receive an invoice from the supplier. This document will state the total amount owing, including GST. Consider the transactions shown below:

July 7	Bought goods on credit from Snyder & Snyder for $550 (including GST), Invoice 4325
16	Bought stock on credit from John Hand & Sons $150 (plus $15 GST), Invoice 9191
21	Bought more stock on credit from Snyder & Snyder for $220 (including GST), Invoice 4332

Once again, the amount of GST being charged on a particular purchase can be determined by dividing the cost of the transaction by 11. Therefore the GST charged on 7 July would be $550/11 = $50. (To check: 10% of $500 = $50 and $500 + $50 = $550, which was the total amount charged on invoice number 4325.) These transactions have been recorded in a purchases journal, as shown in figure 8.2.

Figure 8.2 **Purchases journal to record GST charged by creditors**

Date	Creditor	Inv. no.	Stock control $	GST $	Creditors control $
Jul 7	Snyder & Snyder	4325	500	50	550
16	John Hand & Sons	9191	150	15	165
21	Snyder & Snyder	4332	200	20	220
31	Totals		850	85	935

Once again, it is important that the GST be recorded separately. The journal in figure 8.2 shows that $850 worth of stock was purchased on credit during July. With 10% GST added to this cost, the total invoiced cost becomes $935 (10% of $850 = $85 and $850 + $85 = $935). The posting of this journal has been completed as follows:

ISBN 978 1 4202 3058 1

Creditors control a/c

		$			$
			Jul 31	Stock control/GST clearing	935

Stock control a/c

Jul 31	Creditors control	850			

GST clearing a/c

Jul 31	Creditors control	85			

Note that the total credit to the creditors control account is represented by two debits in this example. The stock control account is debited with the actual cost of the stock, which is $850. The GST clearing account is then debited with the 10% tax charged by the firm's supplier. This is the same account that was used when posting information from the sales journal in the previous example. This point brings us to the purpose of the GST clearing account, covered in the next section.

8.4 The GST clearing account

The GST clearing account is used to accumulate all the GST charged by a business to its customers. It is also used to record the amount of GST charged by suppliers to the business. By joining these two functions together, the net GST result of all transactions can be seen. The examples shown in sections 8.2 and 8.3, involving the sales journal and purchases journal respectively, have been combined below into a single GST clearing account.

GST clearing a/c

		$			$
Jul 31	Creditors control	85	Jul 31	Debtors control	110

The above ledger account shows that this business has charged $110 to its debtors. During the same month it has been charged $85 GST by its creditors. By deducting the $85 charged by creditors from the $110 charged to debtors, the owner of this business can determine the amount of GST owed to the government ($110 – $85 = $25 payable). If the GST clearing account has a credit balance, it represents a liability to the business that is payable to the government, via the taxation office, on a periodic basis. If for example the $25 was paid on 31 August, the GST account would be eliminated by the cash payment as shown:

GST clearing a/c

		$			$
Jul 31	Creditors control	85	Jul 31	Debtors control	110
Aug 31	Cash at bank	25			
		110			110

ISBN 978 1 4202 3058 1

The debit entry from cash at bank discharges the responsibility of the business owner for the amount of tax owing to the government. Therefore, the balance of the liability account is cancelled out by the cash payment. However, sometimes the tax liability for the net amount of GST payable will not be paid off by balance day. For example, if this business prepared a balance sheet as at 31 July, the GST clearing account would be reported as a current liability because the firm has an obligation that is due within the next 12 months. The account would be balanced in the usual fashion, as shown below, and reported alongside the other liabilities of the business.

GST clearing a/c

		$			$
Jul 31	Creditors control	85	Jul 31	Debtors control	110
	Balance	25			
		110			110
			Aug 1	Balance	25

Under normal business circumstances, the GST clearing account would be expected to have a credit balance and therefore be a liability account for the business. This is because the GST is applied to all purchases (at 10% of cost prices) and to all sales (at 10% of selling prices). As goods are normally sold above cost price, the GST collected on sales would be expected to be greater than that paid on purchases. However, this may not always be the case. A business may be building up its inventory levels for an anticipated busy period (for example, before Christmas trading) and therefore may pay out more GST to suppliers than it collects from customers in a particular month. In this case, the debits to the GST clearing account will exceed the credits to the account. An example of this scenario is shown below:

GST clearing a/c

		$			$
Jul 31	Creditors control	500	Jul 31	Debtors control	400

In this example the firm has charged its debtors GST of $400. However, its suppliers have charged the business GST of $500. This leaves the GST clearing account with a debit balance that represents an asset to the firm, because the taxation office owes that firm $100. If the firm reports monthly, this amount will then be refunded to the business entity at the end of the month. This is known as a **GST refund**. For example, if the $100 is refunded on 31 August, the GST clearing account will record the cash receipt as follows:

GST clearing a/c

		$			$
Jul 31	Creditors control	500	Jul 31	Debtors control	400
			Aug 31	Cash at bank	100
		500			500

ISBN 978 1 4202 3058 1

The above situation may arise where seasonal trends have affected trading and the business has spent more on purchases than it has received from sales. However, some businesses report their GST transactions quarterly, and in subsequent months the amount charged to customers may again exceed the amount payable to suppliers. This would move the GST clearing account back into a credit balance. You need to remember that the GST clearing account may therefore have either a debit or a credit balance. Depending on its balance, it will be reported in the balance sheet as either a current asset (when it is a debit balance) or as a current liability (when it is a credit balance).

8.5 GST and the cash receipts journal

A trading firm selling goods for cash will also need to account for the GST in its cash receipts journal. As was the case with the sales journal, a special column must be created to record the GST collected on each sale. The following cash receipts have been provided to demonstrate the recording required in a cash receipts journal modified for GST:

Aug 4	Sold goods for cash $55 (including GST of $5), cost price $25, Receipt 3421
7	Made a cash sale of $110 (including GST of $10), cost price $50, Rec. 3422
11	The owner contributed an additional $5000 as capital
16	Cash sale of $60, plus GST of $6, cost price $28, Rec. 3423
22	Collected $200 from debtor A. Folino, Rec. 3424
26	Sold goods for cash $88 (inc. GST), cost price $42, Rec. 3425
30	Cash sale of $90, plus GST of $9, cost price $45, Rec. 3426

In order to record the GST collected on a cash sale, once again you need to check if the price provided includes GST or if it is the amount before the GST has been applied. For example, on 4 August this business made a sale of $55, including GST. The GST will be equal to one-eleventh of this sale, so the amount of GST charged can be checked by dividing the selling price by 11 ($55/11 = $5 GST). If the selling price does not include GST, the tax applicable will simply be 10% of the selling price. In the example, the selling price of goods sold by the business on 16 August was $60, plus GST. Therefore, the GST collected would be 10% of $60, which is $6. It is important to note that two of the above transactions do not attract the GST:

- The *capital injection* of $5000 made by the owner will not have the GST applied to it. This is simply a transfer of cash from the owner's private bank account to the business bank account. Although the transactions of the business and those of the owner are kept separate, as required by the entity principle, such a transaction is not relevant to the GST.
- The *collection of cash from a debtor* will not attract GST. The debtor would have been charged GST at the time of the sale and this amount would have been stated on the sales invoice. When the debtor settles the account, GST will not be charged a second time. Therefore, the amount received is simply recorded in the usual fashion.

These transactions have been recorded in the cash receipts journal shown in figure 8.3 on the next page.

Note: to verify that the amount recorded as GST received is correct, check that it equals 10% of the selling price charged. In figure 8.3 the total of the selling price column is $380. The GST collected should be 10% of this amount, which is $38. The columns in the cash receipts journal can still be used to check for recording errors. All columns, except for the cost price column,

Figure 8.3 Cash receipts journal to record GST collected

Date	Details	Rec. no.	Bank $	Disc. exp. $	Debtors $	Cost of sales $	Sales $	Sundries $	GST $
Aug 4	Cash sales	3421	55			25	50		5
7	Cash sales	3422	110			50	100		10
11	Capital	–	5000					5000	
16	Cash sales	3423	66			28	60		6
22	A. Folino	3424	200		200				
26	Cash sales	3425	88			42	80		8
30	Cash sales	3426	99			45	90		9
31	Totals		5618		200	190	380	5000	38

should be used to perform a numerical check. To check the journal in figure 8.3, the following calculation can be performed: $200 + $380 + $5000 + $38 = $5 618. Once the entries in the receipts journal are checked, they can be posted to the general ledger accounts in the usual fashion. The following entries are the result:

General ledger

Cost of sales a/c

		$			$
Aug 31	Stock control	190			

Stock control a/c

Aug 1	Balance	xxx	Aug 31	Cost of sales	190

Debtors control a/c

		$			$
Aug 1	Balance	xxx	Aug 31	Cash at bank	200

Cash sales a/c

			Aug 31	Cash at bank	380

Capital a/c

		$			$
			Aug 31	Cash at bank	5000

GST clearing a/c

			Aug 31	Cash at bank	38

Cash at bank a/c

Aug 1	Balance	xxx			
31	Cash receipts	5618			

ISBN 978 1 4202 3058 1

Note that the GST clearing account shown above represents a liability to the business. The amount of $38 is the tax collected on the firm's cash sales for the month of August. The business collects GST on the day that the cash sale is made. This is accumulated over time and will be paid to the government, either monthly or quarterly. The GST clearing account will be revisited once the details of the cash payments journal have been covered.

8.6 GST and the cash payments journal

The final journal that may be used to record details of transactions that involve the GST is the cash payments journal. A small business owner may have to pay GST on items such as cash purchases of inventory, rent of the business premises, office stationery and purchases of non-current assets. It is vital that payments of GST are recorded accurately, as these can be deducted from the GST collected on the firm's sales. The following transactions have been provided as examples:

Aug 5	Bought goods for cash $66, including GST of $6; Cheque 8282
9	The owner withdrew $500 cash; Chq. 8283
14	Paid cash for stationery $40, plus GST of $4; Chq. 8284
18	Cash purchases of stock $55, including GST of $5; Chq. 8285
24	Stationery bought for cash $22, including GST of $2; Chq. 8286
25	The owner cashed Cheque 8287 for personal use $400
29	Bought computer for cash $2 200, including GST of $200; Chq. 8288
30	Paid creditor Olsen $500 on account; Chq. 8289

Note: the GST is not applicable to the owner's drawings, as this represents a transfer of the owner's capital from the business account to the proprietor's private account (simply the opposite of a capital contribution). The 10% tax is also not applicable to the payment made to the creditor on 30 August. When the goods were purchased from this supplier the GST would have been added to the purchase invoice, so the Creditors account would record the total cost of the purchase, including the GST. Therefore the GST should not be recorded at the time of payment. (It would amount to double recording of the same tax, which would be inaccurate.) All other transactions shown above have the 10% GST applied to them. Figure 8.4 on page 162 shows how the cash payments journal could be designed to account for these transactions.

Figure 8.4 Cash payments journal to record GST paid

Date	Details	Chq. no.	Bank $	Disc. rev. $	Creditors $	Stock control $	Stationery $	Draw. $	Sund. $	GST $
Aug 5	Stock control	8282	66			60				6
9	Drawings	8283	500					500		
14	Stationery	8284	44				40			4
18	Stock control	8285	55			50				5
24	Stationery	8286	22				20			2
25	Drawings	8287	400					400		
29	Computer	8288	2 200						2 000	200
30	Olsen Co.	8289	500		500					
31	Totals		3 787	0	500	110	60	900	2 000	217

As was the case with the cash receipts journal, the columns in the cash payments journal can be used as a checking device. The totals of the columns can be added across the bottom of the journal to ensure that the total amount paid for the month is accurate ($500 + $110 + $60 + $900 + $217 + $2 000 = $3 787). The posting of the journal can then be done in the usual fashion, as shown below:

General ledger

Creditors control a/c

		$			$
Aug 31	Cash at bank	500			

Stock control a/c

Aug 31	Cash at bank	110			

Stationery a/c

Aug 31	Cash at bank	60			

Drawings a/c

Aug 31	Cash at bank	900			

GST clearing a/c

Aug 31	Cash at bank	217			

Computer a/c

Aug 31	Cash at bank	2 000			

Cash at bank a/c

			Aug 31	Cash payments	3 787

ISBN 978 1 4202 3058 1

Note: the use of the GST clearing account is relevant to both cash journals. (You saw in section 8.5 how entries were posted from the cash receipts journal.) The two entries for the GST clearing account—the entry made from the cash receipts journal and the entry made from the cash payments journal—are netted off against each other. This allows the business owner to determine whether they owe the government GST, or whether they are due for a refund. The entries from the two cash journals have been repeated below, to show the net effect:

GST clearing a/c

		$			$
Aug 31	Cash at bank (CPJ)	27	Aug 31	Cash at bank (CRJ)	38

In this case, the business has collected $38 in GST from cash sales made during August. During the same period it paid $27 in GST on its cash payments for stock and other purchases. The business therefore has a net liability of $11 ($38 – $27). This would be paid on a subsequent date and the account would then be cleared to a zero balance. If the business paid its GST on a monthly basis, the GST liability would be paid in September. The account would then appear as follows:

GST clearing a/c

		$			$
Aug 31	Cash at bank	27	Aug 31	Cash at bank	38
Sep 30	Cash at bank	11			
		38			38

A small business that has cash and credit purchases, as well as cash and credit sales, may have quite a complicated GST clearing account. The owner of such a business has to ensure that the GST is accounted for in relation to credit sales, cash sales, credit purchases, cash purchases and payments of GST for other business-related purchases (such as stationery, advertising and cleaning expenses). The GST clearing account may therefore have four separate entries for a given period, each entry being posted from one of the four special journals. In such a situation the GST clearing account may appear as follows:

GST clearing a/c

		$			$
Sep 30	Creditors control	200	Sep 30	Debtors control	350
	Cash at bank	175		Cash at bank	100
	Balance	75			
		450			450
			Oct 1	Balance	75

ISBN 978 1 4202 3058 1

The following observations can be made from the above GST clearing account:

- The business was charged $200 GST on purchases from its creditors.
- It also paid $175 GST on cash purchases of stock and other business purchases.
- $350 GST was charged on credit sales made during September.
- $100 GST was collected on cash sales made during September.
- The business has a GST tax liability of $75 as at 30 September.

8.7 GST and double entry accounting

This chapter has demonstrated the methods used to account for GST on both cash and credit transactions, and the VCE requires you to have a working knowledge of all these possible transactions that attract the GST. It is important to always check whether or not prices quoted include GST or whether an additional 10% is going to be added at the time of invoicing. Both of these possibilities are covered below. The GST clearing account must always be used, both for payments of GST and for collections of GST from customers. The following summary has been prepared as a reference point for a variety of transactions. Please note that the cost prices of sales have been omitted from this table, as that area has been covered in detail on previous occasions in this text. Figure 8.5 emphasises the recording of GST for typical receipts and payments encountered on a day-to-day basis by small business owners. The last transaction included is that of a purchase of a non-current asset for cash, which will usually attract the 10% GST.

Figure 8.5 Double entry and the GST

Transaction	Debit	$	Credit	$
1 Cash sale of $110, including GST of $10	Bank	110	Sales GST clearing	100 10
2 Cash sale of $200, plus GST of 10%	Bank	220	Sales GST clearing	200 20
3 Credit sale of $200, plus GST of 10%	Debtors control	220	Sales GST clearing	200 20
4 Cash purchase of inventory $66, including GST of $6	Stock control GST clearing	60 6	Bank	66
5 Cash purchase of inventory $70, plus GST of 10%	Stock control GST clearing	70 7	Bank	77
6 Credit purchase of inventory $70, plus GST of 10%	Stock control GST clearing	70 7	Creditors control	77
7 Cash payment of advertising $440, including GST of $40	Advertising GST clearing	400 40	Bank	440
8 Cash payment of cleaning expenses $300, plus GST of 10%	Cleaning expenses GST clearing	300 30	Bank	330
9 Bought shop fittings for $10 000, plus GST of $1000	Shop fittings GST clearing	10 000 1 000	Bank	11 000

ISBN 978 1 4202 3058 1

› GLOSSARY OF TERMS

GST (goods and services tax) a broad-based tax applied to most goods and services.

GST clearing account a general ledger account used to record payments of GST, receipts of GST, and GST charged on credit sales and purchases. The balance of this account represents the GST tax liability of the business or the GST tax refund due to that business.

GST liability the net amount of GST payable by a business to the government. This occurs when the GST collected and charged on sales is greater than the GST paid out and charged on purchases. The amount of the liability will be shown in the general ledger as a credit balance in the GST clearing account.

GST payments the amount of GST paid out during a period of time on purchases of inventory and other business-related purchases.

GST receipts the amount of GST collected by a business when sales are made to customers.

GST refund the net amount of GST owing to a business by the government. This occurs when the GST paid out by the business is greater than the GST collected from sales. The amount of the refund due will be shown as a debit balance in the GST clearing account.

Summary questions

1. Describe how the GST is applied to sales made by a small business.
2. List the headings of the columns used in the sales journal of a trading firm in order to account for the GST. Describe the purpose of each of these columns.
3. State the double entries required for a credit sale of goods for $165, including GST. The cost price of the sale was $80.
4. A small business owner purchased inventory on credit. The price quoted was $242, including GST. State the amounts that would appear in a credit purchases journal for this transaction in the following columns: GST, stock control, creditors control.
5. State the double entries required for the following transactions:
   - a Sold goods for cash $187, including GST. Cost price $92.
   - b Sold goods for cash $220, plus GST. Cost price $115.
6. A business recorded GST collections of $324 and GST payments of $178 during August 2010. What is the balance of the GST clearing account at the end of August? (Indicate the dollar amount and whether the balance is a debit or credit.) Under what heading would the account be reported in a balance sheet?
7. The balance of the GST clearing account mentioned in question 6 is settled early in September 2010. State the double entry required when this takes place.
8. 'The GST clearing account is always a liability type account.' Do you agree? Explain your answer fully.
9. A retail shop purchased a new fax machine for $5000 cash, plus $500 GST. State the double entry required to record this transaction.
10. The owner of a small business is unsure how the GST will affect her income statement. Explain to this business owner how the GST will affect the income statement at the end of the reporting period.

ISBN 978 1 4202 3058 1

Practical exercises

[Exercise 8.1]

Laura Pase has just started a new business and has decided to trade under the name of Sunshine Wallpapers. Unfortunately, she is not sure about the recording procedures related to the GST and has asked for your assistance. She plans to sell a lot of her products on credit to professional painters and decorators. Her business has started very well and in the first week of trading she made the following credit sales:

2015	
Jul 1	Sold goods on credit to Freddy the Decorator for $385, which included $35 GST. The cost of sales was $160. Invoice no. 7389.
3	Made a credit sale to A. Luke & Sons $264 (inc. GST of $24). Cost price of goods sold $115. Invoice no. 7390.
4	Issued Invoice 7391 to Bayside Beauty Spot. The cost of the goods provided was $220 and the selling price charged was $450, plus GST of $45.
5	Sold goods to L. Susanna for $352, including GST of $32. Invoice number 7392 was sent to the customer. (Cost price of sale $150.)

a Design an appropriate sales journal for Sunshine Wallpapers to account for credit sales and the GST. Enter the four transactions shown above into your journal.

b Post the sales journal to the appropriate general ledger accounts, including the GST clearing account. Note: stock on hand as at 1 July was $20 000.

c Explain the nature of the GST clearing account, including a reference to the type of balance it currently has.

[Exercise 8.2]

John Douglas is the proprietor of Carlton Sports, a retail outlet that purchases goods from a variety of wholesalers. Douglas is currently designing all his accounting records to take into account the GST on his trading activities. The following events have taken place in August 2015:

Aug 1	Stock on hand $25 000
3	Purchased goods from Frawley's Footballs. Invoice 3820 was received, showing an invoiced total of $957, including GST of $87
6	Invoice 4932 was received from Schicka's Tracksuits. The goods supplied cost $1 250, plus GST of $125
12	Gleeson's Sports Shoes sold goods to Douglas for $1 870 (including GST of $170). Invoice number 8232 came with the goods on delivery
19	Bought goods on credit from Poppleton Billiards for $715, which included GST of $65 (Inv. 928)
25	Received Invoice FR121 from Premier Cricket Pty Ltd, showing the cost of cricket gear purchased as $2 430, plus GST of $243

a Design a credit purchases journal for Carlton Sports to record all purchases of inventory, including the GST charged by suppliers. Once a suitable journal is prepared, record the above transactions.

ISBN 978 1 4202 3058 1

b Post the purchases journal from part **a** above to the relevant general ledger accounts (including the GST clearing account).

c Will the GST clearing account always have a debit balance? Explain your answer fully.

[Exercise 8.3]

Welsford Industries has provided you with a summary of its credit transactions for the last month of trading. The following details have been extracted from the firm's credit journals.

Credit sales journal for July 2015:

Cost of sales	$2 140
Sales—selling price	4 320
GST	432
Total charged	4 752

Credit purchases journal for July 2015:

Stock control	$3 420
GST	342
Total charged	3 762

The stock control account had a debit balance of $34 200 on 1 July 2015, and the debtors account had a balance of $3 500. Any GST liability that the business accrues is settled on the last day of the following month.

a Using the above information, prepare the following general ledger accounts for July 2015: stock control, sales, debtors, GST clearing.

b State the double entry required to clear the GST clearing account on 31 August 2015.

[Exercise 8.4]

The following information relates to the business trading as Millard's Stationery Suppliers:

Sep	2	Bought goods on credit for $540, plus GST of 10%
	5	Sold goods on credit for $242, including GST of $22
	8	Sold goods on credit for $320, plus GST of $32
	13	Purchased inventory for $330 (inc. GST of $30) on credit
	23	Credit purchases of stock $390, plus GST of $39
	30	Credit sale of $460, plus GST of 10%
Oct	31	The firm settles the GST owing or receives a GST refund

a Calculate the total amount of:
  i GST charged on sales
  ii GST charged on purchases.

b Prepare the GST clearing account, including a summary of all transactions from September, and the subsequent payment or refund of GST on 31 October 2015.

[Exercise 8.5]

Jamieson's Appliance Store is a small business that only sells for cash, as the owner is reluctant to trust credit customers. She knows the importance of accounting for the GST, but is unsure about what modifications need to be made to the cash receipts journal. At the end of August 2015 she noted the following:

- The last receipt issued by the business was number 7283.
- The cash at bank account had a debit balance of $450.
- The stock control account had a balance of $54 330.

The owner has provided you with her cash receipts for September 2015 as follows:

Sep 3	Sold a refrigerator for cash $1100 (inc. GST of $100). Cost price $660
5	Took out a loan with the National Australia Bank for $6000
8	Sold for cash one portable CD player $187, including GST of $17. Cost price $95
12	Sold an electric griller for cash $150, plus GST of $15. Cost price $90
17	The owner contributed additional capital of $2 500 in cash
22	Sold goods for cash $240 plus 10% GST. Cost price of goods sold $130
26	Sold for cash one DVD surround sound system for $1 595, which included GST of $145. Cost price of sale $850

a Enter the above transactions into an appropriately designed cash receipts journal.

b Prepare the following general ledger accounts: stock control, cost of sales, sales, GST clearing, cash at bank.

[Exercise 8.6]

The following transactions relate to the business of Gisborne Gifts. The last cheque issued in June 2015 was number 1822. On 30 June 2015 the stock control account had a balance of $35 400 and the cash at bank account had a debit balance of $2 130.

2015	
July 2	Bought goods for cash $1 375, including GST of $125
4	The proprietor cashed a cheque and withdrew $600
7	Paid cash for purchases of stock $671, including GST of $61
12	Paid for cleaning of shop $190, plus GST of $19
14	Bought stock for cash $520, plus GST of 10%
17	Owner's drawings $400 cash
23	Paid telephone bill $180, plus GST of $18
27	Wrote a cheque to the cleaning contractor $190, plus GST
30	Purchased goods for cash $572, inc. GST of $52

Note: the business has collected GST of $326 from its sales during July 2015.

a Record the above transactions in a suitably designed cash payments journal.

ISBN 978 1 4202 3058 1

b Post the relevant information to the following general ledger accounts: cash at bank, stock control, drawings, cleaning expenses, telephone expenses, GST clearing.

c Does the business expect a GST refund at the end of July 2015? Explain your answer fully.

[Exercise 8.7]

The summarised details provided below have been extracted from the special journals used by Kat's Kitchen Products during August 2015:

		$
Sales journal:	Sales—Cost price	1 340
	Sales—Selling price	3 180
	GST	318
	Total	3 498
Purchases journal:	Stock control	1 980
	GST	198
	Total	2 178
Cash receipts journal:	Debtors	1 200
	Sales—Cost price	1 740
	Sales—Selling price	3 840
	Other receipts (Capital)	5 600
	GST received	384
	Amount banked	11 024
Cash payments journal:	Creditors	1 420
	Stock control	1 400
	Rent	2 000
	Advertising	1 000
	Drawings	1 200
	GST paid	440
	Total amount paid	7 460

On 1 August 2015, the general ledger included the following account balances: stock control $43 000, debtors control $3 500, creditors control $3 200.

a Name two items from the cash receipts journal that do not attract the GST. For each of these two items, explain why the GST is not applied in the receipts journal.

b How many items in the cash payments journal do not have the GST applied to them? State the items and give a brief explanation as to why the tax is not applied.

c Post the totals of the special journals to the following general ledger accounts: stock control, debtors control, creditors control, sales, GST clearing. (Note: any GST tax liability accrued by the business will be paid in September 2015.)

[Exercise 8.8]

Jeanette Honeyman, the owner of Chocolates Galore, has provided you with her special journals for the month of October 2015. She also advises that her trial balance prepared on 30 September 2015 included the following balances: debtors $3 200, creditors $3 450, stock control $21 500, GST clearing $640 cr.

ISBN 978 1 4202 3058 1

Sales journal

Date	Debtor	Inv. no.	Cost of sales $	Sales $	GST $	Debtors control $
Oct 3	N. Pilon	43314	125	260	26	286
11	T. Smyth	43315	275	580	58	638
22	N. Ross	43316	175	390	39	429
31	Totals		575	1 230	123	1 353

Purchases journal

Date	Creditor	Inv. no.	Stock control $	GST $	Creditors control $
Oct 5	Chocoholics Ltd	553122	2 200	220	2 420
11	Oz Confectionery	121211	1 540	154	1 694
19	Chocoholics Ltd	553331	1 800	180	1 980
31	Totals		5 540	554	6 094

Cash receipts journal

Date	Details	Rec. no.	Bank $	Disc. exp. $	Debtors $	Cost of sales $	Sales $	Sundries $	GST $
Oct 3	Cash sales	CRS	1 320			550	1 200		120
4	Cash sales	CRS	968			420	880		88
5	Cash sales	CRS	935			410	850		85
10	Capital		2 000					2 000	
11	Cash sales	CRS	1 364			600	1 240		124
12	N. Pilon	4353	280	6	286				
17	Cash sales	CRS	990			440	900		90
18	Cash sales	CRS	1 012			450	920		92
19	T. Smyth	4354	396	4	400				
24	Cash sales	CRS	1 276			540	1 160		116
25	Cash sales	CRS	748			320	680		68
26	Cash sales	CRS	1 133			500	1 030		103
30	Cash sales	CRS	495			200	450		45
31	Totals		12 927	10	686	4 430	9 310	2 000	931

Cash payments journal

Date	Details	Chq. no.	Bank $	Disc. rev. $	Creditors $	Stock control $	Advert. $	Draw. $	Sund. $	GST $
Oct 3	Advertising	5423	385				350			35
4	Stock control	5424	506			460				46
6	GST settlement	5425	640						640	
10	Drawings	5426	300					300		
12	Stock control	5427	495			450				45
18	Drawings	5428	350					350		
21	Advertising	5429	396				360			36
23	Stock control	5430	572			520				52
28	Office furniture	5431	836						760	76
31	Totals		4 480	0	0	1 430	710	650	1 400	290

a Complete the following general ledger accounts for the month of October 2015: debtors, creditors, stock control, cost of sales, sales, GST clearing (balancing this account as at 31 October 2015).

b Explain what the credit balance of $640 represents in the GST clearing account on 30 September 2015.

c Prepare an extract from the balance sheet as at 31 October 2015, showing clearly how the GST clearing account would be reported at that time.

CASE STUDY

LINDA CLAYTON is the owner of Clayton's Computers. She has provided you with a number of business documents she has had in her possession through the month of August 2015. She has also submitted the following information for your perusal:

Trial balance (extract) as at 31 July 2015

	$		$
Stock control	44 200	Creditors control	4 300
		Capital	65 000
		GST clearing	560

ISBN 978 1 4202 3058 1

During August the following source documents were either issued or received by Clayton. (All products sold by the business have a 100% mark-up applied to them.)

CLAYTON'S COMPUTERS

123 BAYVIEW ROAD
SOUTH YARRA 3141 DATE: 3 / 8 / 15

RECEIVED FROM: D. Peter-Budge

FOR: Cash sale of 1 Pendulum 6

AMOUNT: SALES PRICE	$ 2 500
PLUS GST	$ 250
TOTAL RECEIVED	$ 2 750
ABN 43 231 269 999	REC: 2632

CLAYTON'S COMPUTERS

123 BAYVIEW ROAD
SOUTH YARRA 3141 DATE: 5 / 8 / 15

RECEIVED FROM: T. McCormick

FOR: Cash sale of 1 HPP Printer

AMOUNT: SALES PRICE	$ 290
PLUS GST	$ 29
TOTAL RECEIVED	$ 319
ABN 43 231 269 999	REC: 2633

CLAYTON'S COMPUTERS

123 BAYVIEW ROAD
SOUTH YARRA 3141 DATE: 8 / 8 / 15

RECEIVED FROM: J. Brooks

FOR: Cash sale of 1 Pendulum 6

AMOUNT: SALES PRICE	$ 2 500
PLUS GST	$ 250
TOTAL RECEIVED	$ 2 750
ABN 43 231 269 999	REC: 2634

ISBN 978 1 4202 3058 1

COMPUTER SOLUTIONS
82 QUEENS AVENUE
NORTH FLEMINGTON 3031

NO. 7283
DATE: 12/8/15
ABN 31 123 812 127

CHARGE ACCOUNT OF: CLAYTON'S COMPUTERS

TAX INVOICE

Qty	Description	Cost	Value
10	Carmen printers	$154.00	$1 540.00
	Total of this invoice		$1 540.00

NOTE: THIS INVOICE INCLUDES GST OF $140

TERMS: STRICTLY 30 DAYS

WHOLESALE ELECTRICS
153 ADAPTOR AVENUE
SPARKSVILLE 3999

NO. T6231
DATE 14/08/15
ABN 33 992 128 118

ACCOUNT NAME: CLAYTON'S COMPUTERS

TAX INVOICE

Qty	Description	Cost	Value
20	Printer cables	$6.05	$121.00
	Total of this invoice		$121.00

NOTE: PRICE INCLUDES GST OF $11

TERMS: STRICTLY 14 DAYS

CLAYTON'S COMPUTERS

123 BAYVIEW ROAD
SOUTH YARRA 3141

DATE: 29 / 8 / 15

RECEIVED FROM: A. White

FOR: Cash sale of 1 laser printer

AMOUNT: SALES PRICE $ 1040

PLUS GST $ 104

TOTAL RECEIVED $ 1144

ABN 43 231 269 999

REC: 2635

ISBN 978 1 4202 3058 1

THE FURNITURE COMPANY
457 CAVILLE AVENUE
ST KILDA 3182

NO. K3213
DATE 27 AUG 2015
ABN 55 553 439 898

ACCOUNT NAME: CLAYTON'S COMPUTERS

TAX INVOICE

QTY	DESCRIPTION	COST	VALUE
5	COMPUTER DESKS	$200.00	$1 000.00
	GST		$100.00
	TOTAL OF THIS INVOICE		$1 100.00

INVOICE INCLUDES GST OF $100

TERMS: STRICTLY 5/7 N/30

A check of Clayton's records also revealed that the following cheques had been written out during August 2015:

Date	Chq. no.	Payee	For	GST paid	Total paid
Aug 1	83827	Cash	Drawings	Nil	$500
3	83828	Taxation office	GST—July	Nil	$560
5	83829	BLAMI	Insurance	$52	$572
8	83830	Supreme Stationery	Office stationery	$20	$220
12	83831	Cash	Drawings	Nil	$600
17	83832	Good Games	Stock (cash purch.)	$46	$506
24	83833	Electrocon Co.	Electricity	$22	$242
26	83834	Furniture Galore	Office desk	$30	$330

a Enter the above transactions into suitably designed special journals for Clayton's Computers.

b Complete the following general ledger accounts for August 2015: creditors control, stock control, sales, GST clearing.

c At the end of August 2015, what is the position of this business in relation to its GST debt? Explain fully.

d The accurate recording of financial information is essential in relation to the GST. Explain why this is so, with reference to the qualitative characteristic of *reliability*.

e Clayton is happy that she collects a lot of GST as this will increase her net profit for the period. Do you agree with this statement? Explain fully.

ISBN 978 1 4202 3058 1

Chapter 9

The perpetual inventory system

OBJECTIVES

At the completion of this chapter, you should be able to:

- define ‘inventory’
- explain what is involved in a physical stocktake
- outline the features of the perpetual inventory system
- state advantages and disadvantages of the perpetual system
- outline the role of the stock control account
- describe the double entry requirements of a trading firm using perpetual inventory
- prepare appropriate entries in ledger accounts for both the purchase and sale of inventory
- outline the role of stock cards
- record movements of inventory on stock cards, using the first in, first out (FIFO) method
- calculate the cost of sales for a particular period from stock cards and ledger accounts
- calculate, record and report stock losses and gains.

ISBN 978 1 4202 3058 1

9.1 What is inventory?

The success of a trading firm is largely dependent on its ability to buy and sell goods in order to make a profit. The goods that it buys and sells are referred to as **inventory**. (It is also known as **stock** or merchandise.) A trading firm buys its inventory and sells it at a higher price in order to earn its revenue. If the inventory can be sold in sufficient quantities during the reporting period, the firm's expenses may be exceeded and a profit is the end result. Although previous chapters have already covered some material relating to inventory, this chapter ties together all the details relevant to accounting for inventory.

It is important to realise that the definition of trading inventory excludes some items that may be sold from time to time by a business. Non-current assets such as equipment and vehicles may be sold for a profit or a loss at the end of their useful lives. However, when such assets are purchased the intention of management is not usually to resell such items to earn revenue. Non-current assets are bought with the intention of owning them for several reporting periods to use within the business. A sporting goods store may have non-current assets such as shop fittings, office furniture and a computer. The inventory of such a business would include footballs, cricket bats, soccer balls and the like. However, office furniture would be classified as an inventory item in the case of a furniture retailer. This is because it is bought for the purpose of resale in order to generate profit. Therefore an item may be a non-current asset for one type of business yet an inventory item for another.

9.2 The physical stocktake

Conducting a **physical stocktake** of a firm's inventory is a necessary task at least once every reporting period. The aim of a physical stocktake is to determine the actual amount of inventory on hand at a given date. The value of inventory, as determined by the physical stocktake, is included in a firm's balance sheet as a current asset. It is also used as a check on the stock records kept under the perpetual method of recording inventory movements. (This is fully explained later in this chapter.) A physical stocktake is made up of two processes. First, the number of units of each type of inventory is counted. Second, the cost price of each of these units is determined in order to calculate a total value for stock on hand. **Stock sheets** are used to record the details of a physical stocktake. An example of a stock sheet is shown in figure 9.1.

Figure 9.1 Stock sheet

Stock item	Quantity	Cost $	Value $
AB cricket bats	50	200	10 000
VCA cricket balls	400	35	14 000
Mitre soccer balls	80	30	2 400
Kooka hockey sticks	60	30	1 800
Total stock on hand			28 200

The stock sheet in figure 9.1 includes data relating to the two processes of a physical stocktake. Note that the quantity on hand is stated as well as the actual cost of each stock unit. In this simple example, the firm's inventory on hand would be stated as $28 200.

ISBN 978 1 4202 3058 1

9.3 What is perpetual inventory?

Perpetual inventory involves keeping records of all stock movements throughout the reporting period. Whereas the physical stocktake determines the amount of stock on hand on balance day, the perpetual method (also known as the **continuous inventory method**) updates the balance of stock on hand on a continuous basis throughout the period. That is, every time stock moves in or out of the business, the inventory balance is updated. When stock is purchased the balance will be increased. When sales are made the balance will be decreased. Even withdrawals of inventory by the proprietor must be accounted for, as these also decrease the balance of stock on hand. Obviously, many of these transactions occur on a continuous basis and therefore there is a lot of recording required under the perpetual inventory system. As inventory is usually recorded at cost price, there is a need to have access to information regarding the cost prices of stock throughout the reporting period. The question arises as to what benefits there are to management if perpetual inventory is used. The advantages and disadvantages of perpetual inventory are summarised below:

Advantages of perpetual inventory:

1 **Greater control over stock is possible because up-to-date information is available throughout the reporting period.** With more information at hand, management should make better decisions in relation to inventory. This is particularly so when computerised inventory systems are used. Information relating to stock can be continually updated as transactions occur and therefore the information is timely and highly valuable to management.

2 **Slow-moving and fast-moving lines of inventory can be identified.** A stock card is used to record all movements of a particular item of inventory. As these cards are maintained throughout the reporting period, precise information is available as to how often sales are made of each type of stock. (Stock cards are covered in detail later in this chapter.) Management can then make decisions in light of the information available. For example, it may decide to increase the level of stock that is selling well and reduce or eliminate slow-moving items. Thus excess stock of unsaleable items can be reduced during the reporting period as is necessary.

3 **Reordering of inventory is more efficient.** Part of perpetual inventory involves keeping a record of how many units of each type of stock are on hand at any time. When the number of units reaches a certain level (known as the reorder point), an order should be despatched to the relevant supplier. This removes the guesswork that may occur when accurate records are not maintained. It also helps to avoid the problem of running out of stock and possibly missing out on valuable sales.

4 **Interim profit reports (part-period reports) can be prepared without doing a stocktake.** This is one of the big advantages of perpetual inventory. As records are continually updated in terms of both selling prices and cost prices of goods sold, a gross profit figure can be calculated on a daily basis if so desired. This is extremely valuable information for management. If an estimate of operating expenses can be made (and these are fairly constant in many small businesses), an estimated net profit figure can be calculated for each week or month of the reporting period. However, it must be kept in mind that it can only be an estimate of profit, as the physical stocktake may reveal other information such as stock losses (refer to disadvantage 3).

5 **The level of stock losses or gains can be measured.** The perpetual method can identify the goods actually sold and the goods that have been lost during the period (in conjunction with a physical stocktake). Losses may occur due to theft or breakages, and the level of such losses can be measured in the perpetual system. Management may then react to such losses

ISBN 978 1 4202 3058 1

and make the appropriate decisions. For example, an increase in security systems in the store may be considered.

Disadvantages of perpetual inventory:

1 **Additional record keeping is involved because inventory balances must be updated on a continuous basis.** This may increase the workload of the owner/manager or lead to an increase in staffing levels.
2 **Additional costs may be incurred because of the additional record keeping.** These costs may relate to extra staff and/or equipment. For example, many perpetual systems are run on computerised systems. These systems and their related software may have to be purchased if management decides to use perpetual inventory.
3 **The need for a physical stocktake at the end of the reporting period is not eliminated.** Even though perpetual inventory continuously updates stock records throughout the reporting period, some events may lead to these records being inaccurate. Inventory may be lost due to breakages and/or theft. Recording errors may also occur from time to time. The only way to determine the actual stock on hand is to count it. Therefore, even with all the additional work and record keeping, perpetual inventory does not eliminate the need for a periodic stocktake.

With all of these disadvantages, perpetual inventory must produce significant benefits to management for it to be adopted.

9.4 The stock control account

As has already been demonstrated in earlier chapters, purchases of inventory are debited to an asset account in the form of the stock control account. During the reporting period, as sales are made, the cost price of these sales is transferred from the stock control account to a cost of sales account (an expense). The **stock control account** is used to record all movements of inventory. As inventory is an asset, whenever it is increasing the stock control account must be debited. If the level of inventory decreases, the stock control account must be credited. The balance of the stock control account represents the total cost of stock on hand at that particular point in time. The following summary may be useful as a reference point as you work through this chapter:

Stock control a/c

Increases in inventory are caused by:	Decreases in inventory are caused by:
• buying goods	• selling goods
• stock gains	• stock losses
• capital contributions of stock	• drawings of stock
	• stock used for advertising

'Stock control' is the preferred title for this asset account, as it acts as a control account in much the same way as debtors control and creditors control (refer to chapter 6). The stock control account is a summary of total inventory and is backed up by detailed records of individual stock items in subsidiary records known as stock cards. The total of all stock cards must equal the balance of the stock control account in the general ledger. Although some texts refer to

ISBN 978 1 4202 3058 1

stock control as the merchandise account, the only title used in VCE exams is stock control and therefore all references in this text in relation to this area will be to the stock control account.

9.5 Double entry under the perpetual method: a summary

Although the basic double entries relating to inventory movements have been introduced elsewhere in this text, it is timely to revisit such entries to ensure a full understanding of all recording for stock. Figure 9.2 provides a concise summary of the double entries required for both the buying and selling of stock for cash or on credit. The figure also includes a reference to the relevant journal and the original source document. It is vital that all double entries relating to inventory are fully understood before stock cards are introduced later in this chapter.

Figure 9.2 Double entry under perpetual inventory

Transaction	Journal	Source document	Double entry
1 Bought goods for cash	Cash payments (CPJ)	Cheque butt (copy of cheque)	Stock control Dr GST clearing Dr Cash at bank Cr
2 Bought goods on credit	Purchases (PJ)	Purchase invoice (original)	Stock control Dr GST clearing Dr Creditors control Cr
3 Sold goods for cash	Cash receipts (CRJ)	Receipt (copy)	Cash at bank Dr Sales Cr GST clearing Cr (with selling price) and Cost of sales Dr Stock control Cr (with cost price)
4 Sold goods on credit	Sales (SJ)	Sales invoice (copy)	Debtors control Dr Sales Cr GST clearing Cr (with selling price) and Cost of sales Dr Stock control Cr (with cost price)

9.6 Identifying the cost price of sales

The summary of the double entries under the perpetual method in figure 9.2 referred to the source documents for the financial data being entered into journals and ledgers. Such documents contain details such as the cost of purchasing inventory (purchase invoices) and the prices charged to customers for inventory sold (sales invoices). One item that is not included on the source documents is the cost price of the sales made by the firm. The question arises as to where these cost prices are recorded for accounting purposes. They must be entered in journals on a continuous basis throughout the period and therefore must be readily available.

ISBN 978 1 4202 3058 1

The identification of cost prices may be achieved in a variety of ways. Firms using perpetual inventory may apply cost prices to goods sold by one of the following methods:

1 The **identified cost** method identifies the actual cost of each item of inventory when it is sold.
2 **First in, first out (FIFO)** assumes that the first inventory purchased is the first inventory sold.
3 *Last in, first out (LIFO)* assumes that the most recent purchases of the firm are the first goods sold by the firm.
4 The *weighted average cost* method calculates an average of the cost price of each item of inventory and applies this average cost when a sale is made.

Note that, although there are four recognised methods of applying costs to inventory, the VCE course (2012–2016) only requires knowledge of the FIFO method. For a wider understanding of accounting, you need to appreciate that there are other methods available for allocating costs to inventory. It is also important to understand why some owners adopt FIFO for their businesses. The features of both identified cost and FIFO are provided here, but most of the material in this text concentrates on the FIFO assumption, as required by the VCE.

An owner of a trading firm has a basic choice to make when recording cost prices of goods sold. They can either **identify the actual cost of all goods, or simply make an assumption about the movement of inventory** over a period of time. This is the major difference between identified cost and the other methods. Identified cost records the actual cost price of every item of stock sold. FIFO, however, simply assumes that the first goods in are the first goods out.

If a business chooses to use the identified cost method, it must decide how cost prices can be identified during a reporting period. This must be done in a relatively easy way. Journals need to be written up daily, and cost prices of all sales are required for both the cash receipts journal (for cash sales) and the credit sales journal (for credit sales). Here are a few of the more common methods of identifying cost prices:

Manual coding systems

One simple way to identify the cost of stock is through a manual coding system. Such systems are very cheap to run and are quite effective as long as the volume of sales is not too high. For example, a firm that sells large items such as lounge suites or televisions could use a manual coding system. The coding aspect involves a series of letters or numbers on the price tag of each item, which should be meaningless to customers. Consider the price tag shown in figure 9.3.

Figure 9.3 Price tag with numeric code

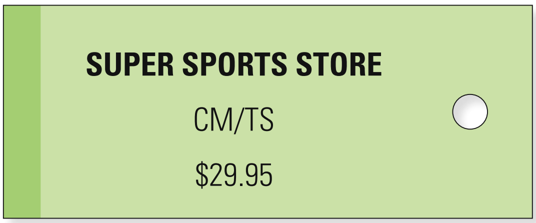
To the customer, the name of the shop is clearly shown along with the selling price of $65 for the item. The numbers in the middle of the price tag have no obvious meaning. However, when they are broken down into segments, management can determine valuable information about each inventory item. The numbers above are a code for the following information:

ISBN 978 1 4202 3058 1

- The first four digits are 1804; these indicate the date of purchase by the store. This item was purchased on 18 April.
- The next four digits are 3250, which indicates that the cost price of the item was $32.50.
- The last digits used on the tag are 12, which is a code for the supplier of the goods (that is, the wholesaler).

This is only one example of a simple coding system and it can be varied to suit the needs of the individual business. It is important to use such a code without revealing sensitive information. For example, most retailers do not like the customer to know how much profit they are making on a sale! Because of this, a different coding system may be used. The price tag shown in figure 9.4 uses an alphabetic code to 'hide' the cost price of stock from anyone other than management.

Figure 9.4 **Price tag with alphabetical code**



Once again, when a customer sees this item on display, the selling price is clearly marked but the letters above it are meaningless. Management, however, has included the cost price of the item on its price tag by using the following code:

C	H	R	O	M	E	T	A	P	S
1	2	3	4	5	6	7	8	9	0

When the coding system is known, it is a simple task to determine the item's cost price. Each letter is used to denote a particular number. The letter C indicates 1, the letter M translates to 5, and so on. The line in CM/TS distinguishes the dollars from the cents. Therefore the cost price of this item is $15.70. Once such a code has been used for a short while, management can determine the cost price of any stock item at a glance. The letters used in the code do not really matter, but the cost price can be deciphered more quickly if the code is easy to remember, as in the example above which uses *chrome taps*. The only important consideration is that ten letters are needed and that they all must be different.

A side benefit of using such a code is that the cost price is readily available and so, therefore, is the profit margin on the individual item. This is particularly useful in retailing situations where the customer may ask for a discount or the best price. The seller can determine the cost price on the spot and therefore know how low the price can be adjusted before the firm is actually losing money on the deal. A manual coding system provides all the necessary detail for perpetual inventory and for a physical stocktake. As a bonus, it is also a useful tool when negotiating sales.

Fixed mark-up systems

Some small business owners prefer to keep things very simple and apply a particular mark-up to all products being sold. For example, it is quite an easy process to determine selling prices

ISBN 978 1 4202 3058 1

by applying a 100% mark-up to all stock, as all cost prices can simply be doubled. If a mark-up of 100% has been applied, working backwards from selling prices to cost prices is also a simple process, as the selling prices can simply be halved to determine cost prices. Therefore, a product selling for \$100 would have cost \$50 at the time of purchase. Not all small businesses, however, apply one mark-up to all items of stock. Also, the mark-up used may not be as simple as the 100% example. Other mark-ups are not as easy to work out, which makes the following formula very useful:

$$\text{Cost price} = \frac{\text{Selling price} \times 100}{100 + \text{mark-up}}$$

For example, stock with a selling price of \$40 on its price tag was found in the stocktake of a firm that marks everything up by 60%. To determine its cost price, the formula would be:

$$\frac{\$40 \times 100}{100 + 60} = \frac{\$4000}{160} = \$25$$

The answer can always be checked by working from the cost price back to the selling price. Therefore:

Mark-up = 60% of \$25 = \$15

Thus the selling price = \$25 + \$15 = \$40

In order for such a system to work, it is assumed that the selling prices and therefore the mark-ups have not changed over time. If the usual mark-up has not been maintained because some stock is being sold at a reduced price, the system would have to be adjusted to account for this.

Computerised coding systems

Accounting has been affected by the introduction of computers in many ways. One of the most significant features of computerised systems relates to inventory. Manual systems may be suitable for some small businesses, but if the number of sales per day is high a manual coding system may become quite cumbersome. The information relating to cost prices must be copied from each price tag during the day, or all price tags must be removed at the point of sale and then collated at a later time. This can be rather difficult in shops that sell high-volume goods (for example, a supermarket). A computerised system, based on product barcodes, overcomes this problem. Barcodes now appear on almost all products and, with the use of a scanner at the checkout, many different types of financial information can be recorded in an instant. A barcode can include information such as the product's country of origin, the supplier of the goods, the cost price of the item and the selling price of the item, all within the one barcode. If a business has the funds available to finance a computerised barcoding system, daily reports can be generated on such matters as:

- total dollar sales for the day
- the total value of the cost of sales for the day
- the number of units sold of each inventory item
- the reorder requirements of each item of inventory.

Such information is highly valuable to management. One of the demands of accounting information is that it be timely, which means that information must be available quickly enough to be useful. A perpetual system that has the ability to generate a financial summary of inventory movements on a daily basis clearly complies with this demand. Many small, sole proprietor

ISBN 978 1 4202 3058 1

firms may not have the funds to computerise their inventory systems, but on a smaller scale the principles remain the same. Cost prices can be recorded daily as long as the volume of sales does not make this impractical. Perpetual inventory provides owners with information that is vital to inventory management and the benefits usually far outweigh the associated costs of maintaining the system.

9.7 First in, first out stock valuation

The coding systems described in section 9.6 represent some of the methods management may elect to use under the identified cost system. Perpetual inventory depends on management being able to record a cost price at the actual time of sale, but sometimes it may not be possible to identify the actual cost. Consider the case of a petrol station that has stock on hand of 10 000 litres of fuel costing $1.00 per litre. Assume that the business then purchases an additional 10 000 litres of fuel at a cost of $1.05 per litre. When the firm sells 4000 litres of fuel the next day, the question arises as to the cost price of the sales. Is it $1.00 or $1.05, or perhaps an average of the two lots of stock? Unlike other trading firms selling such items as books, computers or clothes, it is not possible for a petrol station to label every litre of fuel with a coded cost price. As all of the fuel mixes together, it is impossible to distinguish one lot of stock from another.

A second scenario is the one where the management of a trading firm simply chooses not to apply the system of identified cost. The hassle of coding every single item and/or the cost of a computerised inventory system deters many small business owners from applying identified cost continuously throughout the reporting period. They often prefer a simplified system that will satisfy the demands of the perpetual system but is much easier to apply. If perpetual inventory is considered desirable, management may simply assume that their inventory follows the pattern of first in, first out (FIFO).

It is most important to note that FIFO is based on an assumption of stock movement. It is used when identified cost is not practical or not desirable. For accounting purposes, FIFO assumes that the first goods purchased are the first goods sold. This is usually acceptable because, in most trading firms, it is advisable to try to sell inventory in much the same order as it is purchased. Stock should be rotated when new deliveries arrive. This prevents items from becoming shop-soiled with dust and dirt due to constant customer handling. Also, in the case of perishables with use-by dates, stock may become unsaleable because the use-by date has elapsed. It is therefore important for all firms to try to keep stock moving in line with purchase dates. In order to demonstrate the practical application of FIFO, the purchases and sales details of a product for January 2015 are listed below:

Purchases					Sales		
Jan 1	Lot #1	50	units @ $6.00	$300	Jan 4	40	units @ $12.00 each
6	Lot #2	50	units @ $6.20	$310	9	30	units @ $12.50 each
13	Lot #3	50	units @ $6.50	$325	18	20	units @ $12.50 each
24	Lot #4	50	units @ $6.60	$330	31	50	units @ $12.90 each
Total		200	units	$1 265	Total	140	units

On 31 January a physical stocktake revealed that 60 units were on hand after 140 units had been sold during the month. Two questions need to be answered in relation to the accounting reports for this firm. These are outlined on the next page.

ISBN 978 1 4202 3058 1

- What is the value of **cost of sales** that will be reported in the Income Statement for January?
- What is the dollar value of inventory that will be reported in the balance sheet?

If the assumption of FIFO is applied, the 60 units in stock would be valued as 50 @ $6.60 and 10 @ $6.50, for a total of $395 (50 × $6.60 = $330; 10 × $6.50 = $65; $330 + $65 = $395). This is because the earlier purchases are assumed to be sold first. The following is the result of the FIFO assumption:

First in, first out

Cost of sales			Stock on hand		
50	units @ $6.00	$300	10	units @ $6.50	$65
50	units @ $6.20	$310	50	units @ $6.60	$330
40	units @ $6.50	$260	60	units	$395
140	units	$870			

These calculations are based on the assumption that the earlier purchases are sold first. Therefore stock at end is assumed to be the most recently purchased stock. However, it must be kept in mind that management cannot wait until the end of a month to work out the cost of sales for a period. Stock is often sold on a daily basis, so the accounting system must be able to produce cost prices of all sales on a continuous basis throughout a reporting period. This is still done on the same assumption of FIFO, but will require some modification to the basic accounting system covered so far in this text.

9.8 The role of stock cards

A stock card is a form of subsidiary record that is used to record the financial transactions of one particular item of inventory. A stock card should contain all relevant details of the individual stock item. These details vary from business to business, but usually include:

- the name (or description) of the item
- the product code number (if applicable)
- the name of the supplier
- the location of the item (particularly useful in larger firms)
- the minimum and maximum number to be in stock. When the minimum number is reached, the item should be reordered to bring the units on hand back up to the maximum stated on the stock card
- the valuation method in use; although there are several possible methods, this text will concentrate on the FIFO method at this stage
- all purchases and sales in relation to the particular product.

With all these details being recorded on stock cards, the design of such records can vary quite a lot. As with all accounting records, a stock card must suit the needs of the individual business. A basic model can be presented in this text, but it should be kept in mind that the format of a stock card may vary from this model. Figure 9.5 illustrates a typical stock card for the perpetual inventory system, including five transactions relating to the movements of the Sonya 30-centimetre colour television.

ISBN 978 1 4202 3058 1

Figure 9.5 Stock card

STOCK ITEM: SONYA 30 CM TV SUPPLIER: WHOLESALE ELECTRICALS MIN: 5 MAX: 15					PRODUCT CODE: STV84920030 LOCATION: WEST 15 VALUATION METHOD: FIFO					
Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Jul 1	Balance							5	180	900
2	Inv. 843	10	190	1 900				5	180	
								10	190	2 800
3	Rec. 210				2	180	360	3	180	
								10	190	2 440
4	Inv. 101				3	180	540			
					2	190	380	8	190	1 520
5	Rec. 211				3	190	570	5	190	950
6	Inv. 877	10	190	1 900				15	190	2 850

Notes to the transactions demonstrated in figure 9.5:

July 1 Five units of the item are on hand, with each item costing $180.

July 2 Ten units were purchased on credit, as noted by Invoice number 843. Note the impact on the BALANCE column. The business is now holding five units with a cost price of $180 and ten at a cost of $190 each. It is crucial that the cost prices of stock purchased are kept in the order of purchase. This will allow the proper application of the FIFO rule when stock is sold at a later stage.

July 3 Two units were sold for cash (Receipt 210). Note that, as the first stock bought cost $180 per unit, it is assumed that this stock is the stock sold. Therefore two of the $180 units have been moved to the OUT column, leaving only three at $180. All of the $190 stock remains in the business at this stage.

July 4 On this day five units were sold (as evidenced by Invoice 101). Here is where the application of the FIFO rule is crucial. The business still has three units left at $180 each and ten units with a cost of $190 each. Because five were sold, under the FIFO assumption three of them have been assigned the cost price of $180, while the other two that were sold have been given the cost price of $190.

July 5 Only one cost price is left, so the three units sold on this day would be allocated the cost price of $190 per unit.

July 6 Ten new units were purchased, but note that with this purchase the cost price is the same as that previously charged. In such a case the units can simply be added to the existing stock. This can only be done if the latest cost price is the same as the last lot of stock purchased by the firm.

Note that, when stock is purchased at different prices, these cost prices must be recorded in order within the stock card. Cost prices may increase and decrease, but this does not affect the application of the FIFO assumption. As long as the cost prices are kept in the order in which they occurred, the FIFO rule can be applied when stock is sold.

The other important point to note in reference to this stock card is that all financial data recorded relates to the cost price of the stock item. The selling price of the televisions is totally irrelevant to the entries made in the stock card. If stock cards are to be an effective accounting

ISBN 978 1 4202 3058 1

tool they must be updated on a regular basis, preferably daily. This should be done in order to provide management with the most recent information about stock levels. Other valuable information relates to identifying the stock items that are selling well and those that are virtually not selling at all. If management has such information and it is updated daily, better decision-making should be the end result.

9.9 Stock cards and the general ledger

Two types of inventory records have been covered in this chapter: the stock control account and stock cards. The stock control account was presented as part of the double entry requirements of a trading firm using perpetual inventory. Debits and credits are made to the stock control account with the usual cross-referencing to other general ledger accounts. The stock control account is used to record totals from the special journals for purchases and sales. Individual inventory details are *not* shown in the stock control account. The balance of the stock control account at the end of a period should equal the total stock on hand at that time.

Stock cards are *not* part of the general ledger double entry process. Stock cards act as a subsidiary record to note all of the details of individual inventory items. The number of stock cards used by a business is dependent on the number of different stock items sold by it, as a separate card must be maintained for each line of inventory. The relationship between stock cards and the stock control account is depicted in figure 9.6.

Figure 9.6 The link between stock control and stock cards

General ledger	Subsidiary record
Stock control a/c	Stock cards
• a summary of inventory • totals of journals are posted periodically • no individual details of stock items	• many individual records • not part of double entry • updated continuously throughout the period

Management can use the two types of records as a control mechanism, because the total of all stock cards can be checked against the balance of the stock control ledger account. In large-scale firms, different employees may be employed in the two areas and work independently. In such a situation, errors may be detected by comparing the two sets of records from time to time. The balance of the stock control account can be determined in the usual way from the general ledger. To check this figure, the closing balances of all stock cards can be determined and this should give the same dollar amount recorded in the stock control account. A schedule can be prepared for this purpose in much the same way as the debtors and creditors schedules were done in Chapter 6. An example of such a schedule is shown in figure 9.7.

It is important to be able to relate the entries in a stock card to the double entries made in the general ledger. The most obvious link between the two sets of records is that the entries on the debit side of the stock control account occur when inventory increases and therefore equate to the entries in the IN column on the stock cards. Similarly, credits to the stock control account equate to the OUT column on the stock cards. An important point here is the use of the details column on the stock card shown in figure 9.5. The source documents stated in the reference column indicate the nature of the transaction in each case and therefore should always be stated for future reference.

ISBN 978 1 4202 3058 1

Figure 9.7 Schedule of stock cards showing final balances

Inventory description	Product code	Quantity	Cost $	Value $
Sonya 30 cm CTV	STV84920030	30	200	6 000
Sonya 45 cm CTV	STV84920219	50	300	15 000
Kembrook DVD recorder	KM843437890	20	600	12 000
Kembrook Ipeds	KM843929232	10	850	8 500
Balance of stock control ledger account				41 500

9.10 Stock losses and stock gains

One control mechanism already mentioned is the checking of stock cards against the stock control account in the general ledger. A second form of control over inventory is the checking of the inventory records against the physical items actually on hand at a particular time. That is, a physical stocktake should be done to determine whether or not the situation depicted in the stock cards matches the actual stock items in the business. Two possibilities can arise when this procedure is carried out: namely, a stock loss or a stock gain.

A **stock loss** occurs when the physical stocktake reveals an amount of stock on hand that is *less* than that shown by the stock cards.

A **stock gain** exists when the physical stocktake figure is **higher** than the value depicted by the stock cards.

The most common cause of a discrepancy between the two figures is the expense suffered through shoplifting. Unfortunately, most trading firms experience some degree of shoplifting and for many retail outlets it can be a very expensive item. Trading firms lose out in two ways. First, when goods are stolen the business suffers a loss equal to the cost of the item. Second, the firm may also lose money in responding to the problem of shoplifting if it uses one or more forms of security to deter shoplifters. These may include security guards, video surveillance, security tags on products, two-way mirrors or even dye bombs, all of which cost money. Because of shoplifting, most firms usually suffer a stock loss rather than experience a stock gain. A comparison of the possible causes of both situations confirms this point.

Stock losses are caused by:

1. **undersupply by suppliers**, when the number of items delivered to the store is less than the amount stated on the purchase invoice
2. **oversupply to customers**, when the amount of goods supplied to customers exceeds the quantity stated on the sales invoice
3. **theft** by customers, staff and others
4. **recording errors in the stock cards**, leading to an overstatement of the units that should be on hand
5. **duplicate invoices issued by a supplier**, which may occur when a supplier accidentally invoices a business a second time and the error goes undetected
6. **stocktaking errors** if some goods were erroneously excluded from the stocktake.

Stock gains are caused by:

1. **oversupply by suppliers**, which happens when the number of items delivered to the store is greater than the amount stated on the purchase invoice

2 **undersupply to customers**, which occurs when the quantity of goods supplied to customers is less than the quantity stated on the sales invoice
3 **recording errors in the stock cards**, leading to an understatement of the number of units that should be on hand
4 **stocktaking errors**; for instance, where some goods are erroneously counted twice in the stocktake.

A stock loss or gain may result from a combination of many of these events. The internal control mechanisms used by a firm should pick up many of the errors listed above. For example, undersupply by a supplier should not be allowed to occur; all deliveries should be checked against the relevant invoices and situations of undersupply rectified immediately. However, human error may overcome the best internal control procedures. For example, staff who are performing stocktakes often work long hours through the night and counting errors can sometimes be made. The role of accounting is to reduce, if not eliminate, the variety of errors that can occur throughout any given reporting period.

9.11 Recording stock losses and gains

If a stock loss or gain is revealed on balance day, the books must be adjusted to reflect the true situation. If the physical stocktake reveals a value that is greater than that shown in the accounting records, the stock control account must be increased. If the stocktake figure is lower than the figure in the records, the stock control account must be decreased to the amount revealed by the stocktake.

Adjusting for a stock loss

A stock loss occurs when the number of items identified in a physical stocktake is less than the number of items stated on a stock card at that time. When this occurs, the stock card for that particular product must be adjusted to reflect the true situation. Stock cards will always show how many units of stock should be on hand. However, this may not be what actually remains on balance day. Information from a physical stocktake must be available before an adjustment for stock loss can be made. Consider the stock card for the Centrum 12 computer shown in figure 9.8. The physical stocktake conducted on 30 June revealed that 14 Centrum computers were in stock. When looking at the stock card, pay particular attention to the number of units on hand after the sale made on 25 June.

After this business made the sale of one computer on 25 June, 15 units should still have been in stock. However, the stocktake showed that only 14 units were actually on hand. Therefore, for one reason or another (possibly theft), one computer has gone missing. The stock card has been adjusted to reflect the true situation. Note that the FIFO assumption even applies to stock losses. As one computer is missing, it is assumed to be the older stock purchased and therefore the stock loss has been recorded as $1500. Memo number 21 has been written out to note the details of this event and this document number has been stated in the Details column of the stock card. All stock cards should be checked in this manner on balance day by verifying the number of goods actually on hand and checking these details with what is stated in the individual stock cards at that date.

As usual, whatever is recorded in the stock cards must also be recorded in the control account in the general ledger. The stock control account must always represent a summary of stock cards and therefore must be adjusted for all stock losses. If the loss of one Centrum 12 computer is the only stock loss experienced by this business, the loss of $1500 needs to be recorded in the general ledger. As usual, entries to general ledger accounts must originate in one of the firm's journals. Because a stock loss is a rare occurrence, the general journal would be used for this purpose. The entry required for the stock loss of $1500 is shown in figure 9.9.

Figure 9.8 Stock card showing adjustment for stock loss

STOCK ITEM: CENTRUM 12 COMPUTER SUPPLIER: COMPUTER CITY					PRODUCT CODE: PC60333 VALUATION METHOD: FIFO					
Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Jun 1	Balance							10	1 500	15 000
4	Inv. 645				2	1 500	3 000	8	1 500	12 000
9	Inv. 646				3	1 500	4 500	5	1 500	7 500
15	Inv. 321	12	1 600	19 200				5	1 500	
								12	1 600	26 700
18	Inv. 667				1	1 500	1 500	4	1 500	
								12	1 600	25 200
25	Inv. 672				1	1 500	1 500	3	1 500	
								12	1 600	23 700
30	Memo 21				1	1 500	1 500	2	1 500	
								12	1 600	22 200

Figure 9.9 General journal entry to record a stock loss

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Jun 30	Stock loss	1 500			
	Stock control		1 500		
	Adjusting entry to decrease stock control to value of physical stocktake—stock loss of 1 Centrum 12 Computer (Memo 21)				

ISBN 978 1 4202 3058 1

When posted to the general ledger, the following entries are the result. (A balance of $40 000 has been included in the stock control to provide a realistic example.)

Stock control a/c

		$			$
Jun 30	Balance	40 000	Jun 30	Stock loss	1 500

Stock loss a/c

Jun 30	Stock control	1 500			

The adjusting entry for a stock loss has the effect of reducing the asset account 'stock control' (credit) and increasing the expense account 'stock loss' (debit). The stock control account indicates that $40 000 of total stock should have been on hand on 30 June. As one computer is missing, a stock loss of $1 500 has occurred. The credit to stock control of $1 500 decreases this asset account to the amount actually on hand. Therefore $40 000 – $1500 = $38 500 stock on hand. This amount would then be reported in the firm's balance sheet in the usual fashion, as shown below:

Balance sheet (extract) as at 30 June

Current assets	
Stock control	38 500

Adjusting for a stock gain

Adjusting for a stock gain is the opposite process to that of a stock loss. A stock gain occurs when the number of units actually on hand is greater than the number of units shown on a stock card. This is an unusual event, as it seems that units of stock have appeared from nowhere! It is important to appreciate that stock gains usually occur from recording errors, stocktaking errors, oversupply by the firm's creditors or undersupply to the firm's customers. That is, a stock loss may occur through shoplifting or some other form of theft, but stock gains come from errors in the accounting system. Regardless of the cause, both stock cards and the stock control account must be adjusted to reflect the actual situation on balance day. Consider the extract of a stock card shown in figure 9.10, which has a stock gain of two units recorded on 31 May. The physical stocktake revealed that 48 units were on hand, rather than 46 as indicated by the stock card.

Note that the adjustment for the stock gain actually increases the number of units shown in the stock card. Here the units increased from 46 (18 + 28) to 48 (20 + 28). On balance day it would not be known which units were incorrectly recorded or wrongly supplied. As two units appear to have come into the business, they have been recorded in the stock card at the lower of the two cost prices available in the balance column in order to comply with the principle of *conservatism*. This ensures that the gain has not been overstated. As was the case with a stock loss, the adjustment for a stock gain must also be recorded in the stock control account. The relevant general journal entry is shown, followed by the general ledger accounts. (A balance of $25 000 has been included in the stock control account to provide a realistic example.)

ISBN 978 1 4202 3058 1

Figure 9.10 Stock card showing adjustment for stock gain

STOCK ITEM: CLASSIC COFFEE MACHINE SUPPLIER: GILLY BUYATT							PRODUCT CODE: CCM4300 VALUATION METHOD: FIFO			
Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
May 27	Inv. 255				5	40	200	25	40	
								28	42	2 176
28	Rec. 146				2	40	80	23	40	
								28	42	2 096
30	Inv. 265				4	40	160	19	40	
								28	42	1 936
31	Inv. 276				1	40	40	18	40	
								28	42	1 896
31	Memo 32	2	40	80				20	40	
								28	42	1 976

Figure 9.11 General journal entry to record a stock gain

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
May 31	Stock control	80			
	Stock gain		80		
	Adjusting entry to increase stock control to value of physical stocktake (Memo 32)				

General ledger

Stock control a/c

		$			$
May 31	Balance	25 000			
May 31	Stock gain	80			

Stock gain a/c

			May 31	Stock control	80

The adjusting entry for a stock gain has the effect of increasing the asset account 'stock control' (debit) and increasing the revenue account 'stock gain' (credit). The stock control account indicates that $25 000 of total stock should have been on hand on 31 May. However, this amount is

ISBN 978 1 4202 3058 1

inaccurate because an error has occurred somewhere during the period. The debit to stock control of $80 increases this asset account to the amount actually on hand. Although it is possible for a stock gain to occur in a particular stock card, theft from businesses (particularly shoplifting) will usually be greater than any required adjustments for stock gains. Therefore, when adjusting the overall stock control for a business, it is likely that a stock loss may well still exist.

As was mentioned earlier in this chapter, the identification of stock losses is a major advantage of the perpetual inventory system. Not only can the type of stock missing be identified, but so can the cost of such missing items. Management then has the information available to make appropriate decisions. Repeated stock losses in a particular product or in a specific department may indicate a serious problem that should be rectified. Perpetual inventory should provide up-to-date information about all movements of inventory and therefore management should be informed about any problems that may exist within the structure of the business in relation to the goods that it carries as its stock.

9.12 Donations of goods as advertising

Chapter 7 introduced a transaction that involved the donation of goods to a charity, a school or a local community organisation. This was recorded in the general journal and the double entry was stated as follows:

Advertising expense	Debit	
Stock control		Credit

This transaction was recorded as advertising, because donations of goods are often made for two basic purposes. The first of these is that many business owners are most willing to help local community groups and therefore donations are simply a gesture of goodwill. However, such donations can also be good for business! Donations may help to increase awareness of the business name in the local community. They may also make 'new friends' for the business and may persuade some consumers to support local businesses that have themselves supported local community groups. Thus, donations of goods clearly play a positive role for a business because of the advertising potential of such an act.

As donations of goods reduce the stock held by a business, the stock control account is obviously affected. As always, if the stock control account is affected, so too is the stock card of the goods being donated. The general journal entry for the donation of goods, as demonstrated in figure 7.8, has been repeated in figure 9.12.

This general journal entry was created to record the donation of two footballs to a school. The narration refers to Memo 31 and the cost price has been recorded as being $50 each. This information would have originated in the stock card for the footballs. The FIFO assumption of stock flow should be applied in the usual fashion. The stock card entry for the donation shown above has been prepared in figure 9.13.

Note that on 30 April the business had 24 footballs in stock. When the two footballs were donated on 1 May, it had been assumed that they came from the $50 stock, as is usual under the FIFO method of cost allocation. As a donation of goods is not a common event, a memo should be completed to take note of all details. This document number should always be noted in the details column of the stock card.

ISBN 978 1 4202 3058 1

Figure 9.12 General journal entry for donation of stock items

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
May 1	Advertising Stock control Owner donated 2 footballs to the local school @ $50 each (Memo 31)	100	100		

Figure 9.13 Stock card showing a donation of goods for advertising purposes

STOCK ITEM: FOOTBALLS — PRODUCT CODE: ANFL6770
SUPPLIER: SHERRIN PTY LTD — VALUATION METHOD: FIFO

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Apr 24	Inv. 757	20	52	1 040				10 20	50 52	1 540
28	Rec. 121				2	50	100	8 20	50 52	1 440
30	Rec. 124				4	50	200	4 20	50 52	1 240
May 1	Memo 31				2	50	100	2 20	50 52	1 140

9.13 From stock cards to journals

It is important to appreciate the link that exists between stock cards and the journals used by trading businesses. Under the FIFO system, the cost prices of all sales are determined within the stock cards. This amount can then be recorded in either the cash receipts journal (for a cash sale) or in the credit sales journal (if the sale was on credit). Having recorded the cost prices in these two journals, the stock control account will ultimately be decreased with the usual cost of sales entry. The following example demonstrates this flow of information. Note that a single stock card will be used for the purposes of this example. In reality, a trading firm will have a stock card for every product it sells. However, the process of getting information from stock cards into the general ledger remains the same, regardless of how many stock cards are in use. The stock card for the Deluxe CD player is provided in figure 9.14 on the next page.

ISBN 978 1 4202 3058 1

Figure 9.14 Stock card data for CD player

STOCK ITEM: DELUXE CD PLAYER — PRODUCT CODE: DCD1320
SUPPLIER: MODERN ELECTRICS — VALUATION METHOD: FIFO

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Jun 1	Balance							10	45	450
4	Rec. 121				2	45	90	8	45	360
8	Inv. 646	10	48	480				8	45	
								10	48	840
11	Rec. 122				1	45	45	7	45	
								10	48	795
15	Inv. 828				5	45	225	2	45	
								10	48	570
18	Rec. 123				2	45	90			
					2	48	96	8	48	384
22	Rec. 124				3	48	144	5	48	240
25	Inv. 676	12	50	600				5	48	
								12	50	840
28	Rec. 125				2	48	96	3	48	
								12	50	744
30	Memo 71				1	48	48	2	48	
								12	50	696

The entries in this stock card would involve the following journals:

- purchases journal for 8 and 25 June
- sales journal for 15 June
- cash receipts journal for 4, 11, 18, 22 and 28 June
- general journal on 30 June (for the stock loss).

The journals have been prepared below. Note that the entries in the sales journal and the cash receipts journal include selling prices to make them more realistic. Such information would of course come from the usual source documents (in this case, the invoices and receipts issued to customers).

Purchases journal

Date	Creditor	Inv. no.	Stock control $	GST $	Creditors control $
Jun 8	Modern Electrics	646	480	48	528
25	Modern Electrics	676	600	60	660
Jun 30	Totals		1 080	108	1 188

ISBN 978 1 4202 3058 1

Sales journal

Date	Debtor	Inv. no.	Cost of sales $	Sales $	GST $	Debtors control $
Jun 15	Sunbury S.C.	828	225	450	45	495
Jun 30	Totals		225	450	45	495

Cash receipts journal

Date	Details	Rec. no.	Bank $	Debtors $	Cost of sales $	Sales $	Sundries $	GST $
Jun 4	Cash sales	121	198		90	180		18
11	Cash sales	122	99		45	90		9
18	Cash sales	123	407		186	370		37
22	Cash sales	124	308		144	280		28
28	Cash sales	125	209		96	190		19
Jun 30	Totals		1 221		561	1 110		111

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Jun 30	Stock loss	48			
	Stock control		48		
	Adjusting entry to decrease stock control to value of physical stocktake (Memo 71)				

It is important to recognise the connection between the stock card and the journals. The entries in the IN column were both noted with invoice numbers. This indicates that the goods were purchased on credit and therefore both of these entries correspond to those entries in the credit purchases journal. The one credit sale that this business made during the month was on 15 June and this appears in the OUT column. According to the stock card, there were five units sold at a cost of \$45. Hence, the entry made in the sales journal shows a cost price entry of \$225 (5 × \$45). One can also determine the selling price charged to the customer from this journal entry. The firm has invoiced them for \$450 (plus GST), indicating a selling price of \$90 per CD player.

Apparently this business sells most of its stock for cash. Through the month of June there were five cash sales, all of which are noted in the OUT column. The cost prices of all of these sales can be traced back to the stock card for the CD player. For the entry on 18 June, the firm has applied FIFO to the goods sold on that day. Two units were allocated a cost of \$45, while

ISBN 978 1 4202 3058 1

the other two have been recorded as costing $48 each. This gives a total cost of the sale as $186, calculated as (2 × $45) + (2 × $48) = $186.

The last journal entry recorded is that of the stock loss, which must always be done via a general journal entry. A physical stocktake done at the end of the month must have revealed only 14 units on hand. As the stock card indicates that 15 units should be in stock, one is missing. Therefore the stock card must be adjusted for the actual amount on hand.

The final process in this example is the posting of the journals to the general ledger accounts of the business. Keep in mind that the benefit of using special journals is the ability to post totals to the general ledger so that summary data are used when making debits and credits.

The general ledger entries resulting from these journals are shown below:

General ledger

Stock control a/c

		$			$
Jun 1	Balance	450	Jun 30	Cost of sales	225
30	Creditors control	1 080	30	Cost of sales	561
			30	Stock loss	48
			30	Balance	696
		1 530			1 530
Jul 1	Balance	696			

Cost of sales a/c

Jun 30	Stock control	225			
30	Stock control	561			

Creditors a/c

			Jun 30	Stock control/GST clearing	1 188

Stock loss a/c

Jun 30	Stock control	48			

Cash at bank a/c

Jun 30	Cash receipts	1 221			

Sales a/c

			Jun 30	Cash at bank	1 110
				Debtors control	450

Debtors a/c

Jun 30	Sales/GST clearing	495			

GST clearing a/c

Jun 30	Creditors control	108	Jun 30	Debtors control	45
				Cash at bank	111

ISBN 978 1 4202 3058 1

These ledger accounts complete the picture regarding the cost prices of inventory sold. The FIFO assumption is used within stock cards to determine the cost prices at the time of sale. These cost prices can then be recorded in either the sales journal or the receipts journal, along with their selling prices. These selling prices can be verified with the source documents used, which will be invoices or receipts. After the special journals are prepared for a period, they are then posted to general ledger accounts. This example has served as a summary of the processes involved in the perpetual inventory system. Subsequent chapters in this text will further develop these accounting systems. Keep in mind these basic workings of perpetual inventory as you work through later chapters.

GLOSSARY OF TERMS

first in, first out (FIFO) a system of recording the cost of inventory sold based on the assumption that the first goods purchased are the first goods sold.

identified cost a system of recording the cost of inventory sold whereby the actual cost of each individual unit is identifiable.

inventory (or **stock**) goods purchased by a trading business for the purpose of resale.

perpetual inventory (or **continuous inventory**) a system of recording movements of inventory items on a continuous basis throughout a reporting period.

physical stocktake the process of counting the number of units of stock on hand at a particular point in time in order to determine the total value of stock actually on hand.

stock see inventory.

stock card a form of subsidiary record used to record all movements of an individual stock item.

stock control account a general ledger account that is used to record a summary of all transactions affecting the inventory of a trading business.

stock gain an adjustment required when the number of units revealed by a physical stocktake is greater than the number of units stated on a stock card.

stock loss an adjustment required when the number of units revealed by a physical stocktake is less than the number of units stated on a stock card.

stock sheets a record used to note details of goods on hand when doing a physical stocktake.

Summary questions

1. Explain how an item may be classified as inventory for one business but as a non-current asset for another.
2. Describe what is meant by the term 'physical stocktake'.
3. Write a brief description of what is involved in the perpetual inventory system.
4. State and describe:
   a. four advantages of perpetual inventory
   b. three disadvantages of perpetual inventory.
5. Outline the role of the stock control account under perpetual inventory.
6. Under what account classification would you include stock control? Explain your answer.
7. Outline the role of the cost of sales account. What classification is this account?
8. State two financial transactions that have the effect of:
   a. increasing the stock control account
   b. decreasing the stock control account.
9. Explain how control is achieved over inventory records by using the stock control account.
10. State the double entries required for each of the following transactions under the perpetual inventory method:
    a. purchased stock for cash
    b. purchased stock on credit
    c. sold goods for cash
    d. sold goods on credit.
11. Describe two different methods a trading firm can use to identify the cost price of inventory on hand.
12. List four items of financial information that can be generated on a daily basis if a trading firm uses a computerised bar-coding system.
13. What is the purpose of a stock card?
14. How many stock cards does a trading firm need? Explain your answer fully.
15. State five different pieces of information relating to inventory that may be recorded on a stock card.
16. Explain the link between the columns in stock cards and the debits and credits in the stock control account.
17. What is the purpose of a physical stocktake in the perpetual inventory system?
18. In relation to the Stock Control account, describe the circumstances that exist for:
    a. a stock loss to occur
    b. a stock gain to occur.
19. Make a list of the possible reasons why a stock loss occurs.
20. State the double entry to record:
    a. a stock loss
    b. a stock gain.

ISBN 978 1 4202 3058 1

Practical exercises

[Exercise 9.1]

A physical stocktake has just been carried out for a business that deals in electrical goods. The following details have been provided:

Qty	Item	Cost price $	Selling price $
45	Portable radios	20	32
36	Portable cassette players	42	79
12	Amplifiers	190	342
10	Compact disc players	120	390
14	Tape decks	220	390

Using the above details, prepare a stock sheet and calculate the value of inventory on hand.

[Exercise 9.2]

Nick Austin owns Aussie's Sport Store and he applies a mark-up of 75% to all inventory held. He is trying to determine the cost prices of some of the goods sold and has asked for your assistance. The following selling prices have been identified for the specified stock items:

Cricket bats	$262.50
Footballs	$105.00
Football jumpers	$78.75
Soccer balls	$56.00
Netballs	$39.90

Using the following formula:

$$\text{Cost prices} = \frac{(\text{selling price} \times 100)}{(100 + \text{mark-up})}$$

calculate the cost price of the five stock items listed above.

[Exercise 9.3]

The physical stocktake for Pickles Menswear revealed the following items on hand on 30 June 2015:

Item	Selling price	Mark-up applied
Ties	$15	50%
Shirts	$48	80%
Trousers	$85	90%
Suits	$290	120%

a Calculate the cost price of each of the items listed.

b Prove your answers to part **a** by working from the cost prices back to the selling prices, using the mark-ups specified.

ISBN 978 1 4202 3058 1

[Exercise 9.4]

Hetherington's Hardware Store purchased electric drills on several different occasions during 2015, as shown below:

January 21	Purchase lot #1	40 drills @ $24.50
March 28	Purchase lot #2	30 drills @ $24.90
June 26	Purchase lot #3	50 drills @ $25.20
August 12	Purchase lot #4	40 drills @ $25.20
November 30	Purchase lot #5	30 drills @ $25.50

On 31 December 2015 a physical stocktake showed that there were 45 drills in stock.

a Using the FIFO assumption of stock flows, calculate the value of the cost of sales for electric drills for the year ended 31 December 2015.

b What is the value of stock on hand as at 31 December 2015 under the FIFO method?

[Exercise 9.5]

Using the first transaction as an example, copy and complete the following table for a business that uses the perpetual inventory system.

Transaction		Journal	Document	Original or copy
1	Sold goods for cash	Cash receipts	Receipt	Copy
2	Bought goods on credit			
3	Paid rent			
4	Received cash from debtors			
5	Owner withdrew cash			
6	Purchased stock for cash			
7	Sold goods on 30 days credit			
8	Paid creditor amount owing			
9	Owner withdrew stock			
10	Received interest from bank			
11	Owner donated stock to local school			

[Exercise 9.6]

Vincent's Trading Store uses the perpetual inventory method and the owner of the firm has supplied the following details for the month of July 2015:

Vincent's Trading Store: account balances as at 1 July 2015

	$		$
Cash at bank	3 000	GST clearing	1 000
Debtors control	3 000	Creditors control	7 000
Stock control	60 000	Mortgage loan	190 000
Shop fittings	28 000	Capital—Lie	222 000
Premises	326 000		
	420 000		420 000

ISBN 978 1 4202 3058 1

Debtors schedule		*Creditors schedule*	
	$		*$*
P. Di Venuto	700	Regal Wholesalers	7 000
K O'Neill	500		
J. Hancock	1 800		

Transactions for July:

Jul 2	Sold goods that had cost $400 for $800 cash, plus GST of $80 (Rec. 951)
4	Bought goods on credit from Regal Wholesalers for $1200, GST of $120 (Inv. 2848)
6	Sold goods on credit (Inv. 613) to P. Di Venuto for $990, including $90 GST (cost price $500)
7	Paid assistant's wages $700 (Chq. 2398)
11	The proprietor cashed a cheque to withdraw $300 (Chq. 2399)
12	Sold goods for cash $590, plus $59 GST (cost price $290)
13	Sold goods on credit for $1 000 to K. O'Neill. GST added to invoice $100 (cost price $500)
14	Paid assistant's wages $700
16	Paid yearly insurance $970, plus $97 GST
17	Bought goods from Regal Wholesalers for $1 430, including $130 GST (Inv. 2918)
19	Debtor—P. Di Venuto paid $680 (discount expense $20)
20	Cheque cashed for the owner's drawings $740
21	Paid assistant's wages $700
23	Sold goods on credit to K. O'Neill for $800, plus $80 GST (cost price $400) and to P. Manser for $450, plus $45 GST (cost price $220)
24	Sold goods for cash for $280, plus $28 GST (cost price $150)
25	Cash purchases of stock $550, including $50 GST
26	The owner donated $250 worth of stock items to the Lions Club for a fundraising raffle, on the condition that the business name is featured on all raffle tickets printed. The donated goods would usually sell for $450 (Memo 12)
27	K. O'Neill paid $290 (was granted a discount of $10)
28	Paid assistant's wages $700
29	Purchased stock from Wholesale Supplies for $1600, plus $160 GST (Inv. 14342)
	Paid Regal Wholesalers $2000
30	Cash purchases of stock $640, plus $64 GST
	Cash sales of $500 and $800 respectively, plus GST of $50 and $80 (cost prices $250 and $400 respectively)

a Record the above transactions in suitably designed special journals and the general journal for the month of July 2015.

b Post the journals to general ledger accounts.

c Extract a trial balance as at 31 July 2015.

d State, and explain, two advantages of perpetual inventory to the management of Vincent's Trading Store.

ISBN 978 1 4202 3058 1

[Exercise 9.7]

The general ledger of Superior Giftware included the following account balances on 1 September 2015:

	$		$
Cash at bank	2 000	GST clearing	2 000
Debtors control	2 500	Creditors control	1 000
Stock control	54 500	Bank loan	20 000
Shop fittings	23 000	Capital	59 000
	82 000		82 000

Debtors schedule	$	*Creditors schedule*	$
Werribee Golf Club	1 900	Supreme Giftware	1 000
J.R. Pty Ltd	300		
J. Courtis	300		

The following journals have been prepared for the month of September 2015:

Cash receipts journal

Date	Details	Rec. no.	Bank $	Disc. exp. $	Debtors $	Cost of sales $	Sales $	Sundries $	GST $
Sep 2	Cash sales	701	209			100	190		19
3	Capital	–	8 000					8 000	
5	Werribee Golf Club	702	1 000		1 000				
8	Cash sales	703	253			120	230		23
14	Cash sales	704	374			180	340		34
15	Cash sales	705	374			180	340		34
19	J.R. Pty Ltd	706	280	20	300				
23	Cash sales	707	440			210	400		40
25	Cash sales	708	418			200	380		38
26	Cash sales	709	418			200	380		38
29	J. Courtis	710	280	20	300				
30	Cash sales	711	682			330	620		62
30	Totals		12 728	40	1 600	1 520	2 880	8 000	288

ISBN 978 1 4202 3058 1

Cash payments journal

Date	Details	Rec. no.	Bank $	Creditors $	Stock $	Wages $	Draw. $	Sundries $	GST $
Sep 2	Advertising	4111	1 320					1 200	120
4	Drawings	4112	700				700		
6	Stock	4113	440		400				40
7	Wages	4114	450			450			
10	Supreme Giftware	4115	1 500	1 500					
14	Wages	4116	450			450			
17	Stock	4117	385		350				35
18	Drawings	4118	600				600		
21	Wages	4119	450			450			
24	Cleaning	4120	220					200	20
26	Supreme Giftware	4121	370	370					
28	Wages	4122	450			450			
30	Stock	4123	165		150				15
30	Totals		7 500	1 870	900	1 800	1 300	1 400	230

Purchases journal

Date	Creditor	Inv. no.	Stock control $	GST $	Creditors control $
Sep 8	Supreme Giftware	2411	870	87	957
16	Supreme Giftware	2476	720	72	792
21	G. Doulton	9332	1 200	120	1 320
28	Supreme Giftware	2543	410	41	451
30	Totals		3 200	320	3 520

Sales journal

Date	Debtor	Inv. no.	Cost of sales $	Sales $	GST $	Debtors control $
Sep 5	Richmond College	6515	300	570	57	627
11	J.M. Wright	6516	120	220	22	242
16	Werribee Golf Club	6517	260	500	50	550
24	S. Pouniotis	6518	180	360	36	396
30	Totals		860	1 650	165	1 815

ISBN 978 1 4202 3058 1

a Enter the opening balances in the appropriate general ledger accounts.

b Post the special journals to the general ledger.

c Extract a trial balance as at 30 September 2015.

[Exercise 9.8]

The manager of the Cool Clothing Store maintains a double entry accounting system using the perpetual inventory method. The trial balance of the business included the following balances on 31 October 2015:

Cash at bank $3890, debtors $2280, stock control $67 400, office furniture $2400, shop fittings $12 000, GST clearing $500, creditors $3700, loan from bank $6000, capital $77 770.

The journals of the firm are posted once a month and the following is a summary of the special journals prepared for November 2015:

Cash receipts journal—discount expense $20, debtors $1 260, cash sales: selling price $14 600, GST $1 460 and cost price $7 830, sundry receipts—nil, total cash receipts banked $17 300.
Cash payments journal—discount revenue $30, creditors $3600, cash purchases $750, wages $1 865, drawings $1 280, office expenses $420, rates $750 and electricity $200, GST $137, total cash payments $8972.
Credit purchases journal: $7 320 + GST $732.
Credit sales journal: Selling Price $1 320, GST $132 and cost price $625.

a Open the general ledger accounts with the balances provided and then post the special journals to the general ledger.

b Prepare a trial balance as at 30 November 2015.

[Exercise 9.9]

The following information relates to the business of Preston Paints on 31 December 2015.

Total sales for the period	$142 000
GST on sales	$14 200
Balance of stock control in the general ledger	$27 600
Cost of sales for the period	$93 400
Stock on hand according to physical stocktake	$26 700

a Prepare a general journal entry to adjust the stock control account for any stock losses or gains that may have occurred.

b Post the entry from part **a** to the stock control account and balance the account.

ISBN 978 1 4202 3058 1

[Exercise 9.10] The owner of Classic Trophies has provided the following information about her business:

Balance of stock control as at 1 July 2014		$17 500
Credit purchases made during the year		$52 000
GST on purchases		$5 200
Total sales for the year	– selling price	$95 000
	– cost price	$43 600
GST on sales		$9 500
Total of physical stocktake on 30 June 2015		$25 700

a Prepare the stock control account as it would appear in the general ledger of Classic Trophies. Your account should show the totals of all relevant special journals, adjustments for stock losses or gains, and a final balance for stock on hand at the end of the period.

b Stock losses may cost a retail business thousands of dollars each year. Suggest two different strategies the management of a retail store can adopt in order to reduce stock losses.

[Exercise 9.11] The information listed below relates to the business of Smillie's Shoe Store.

Balance of stock control as at 1 November 2014		$34 200
Total of stock sheets completed on 31 October 2015		$39 980
Credit purchases made during the year		$62 000
GST on credit purchases		$6 200
Cash purchases made during the year		$23 400
GST on cash purchases		$2 340
Cash sales for the year	– selling price	$125 000
	– GST collected	$12 500
	– cost price	$63 600
Credit sales for the year	– selling price	$32 890
	– GST charged	$3 289
	– cost price	$16 240

a Prepare the following general ledger accounts: stock control, cost of sales, GST clearing, stock loss (or gain).

b Show how the adjustment for the stock loss (or gain) would appear in the general journal.

c State two possible reasons to explain how the stock loss (or gain) could have occurred.

ISBN 978 1 4202 3058 1

[Exercise 9.12]

The manager of Kelly's Computers uses the FIFO method of valuing inventory. The following details relate to one stock item, namely the AP540 printer:

Jul 1	Six printers in stock with a cost price of $300
3	Sold for cash two printers for $540 each, plus $54 GST (Rec. 65)
6	Purchased on credit 10 printers for $3 200 plus $320 GST (Inv. 9211)
8	Sold one printer on credit for $560 (plus $56 GST) on Invoice 321 and one for $540 cash (plus $54 GST) (Rec. 66)
11	Sold three printers for cash for $550 each plus $55 GST (Rec. 67)
12	Sold one printer on credit for $560 plus GST of $56 (Inv. 322)
15	Purchased on credit eight printers for $330 each, plus $33 GST (Inv. 9222)
17	Donated a printer to the local school and received publicity in the school newsletter (Memo 32)
18	Cash sales: four printers for $560 each, plus $56 GST (Rec. 68–71)
22	Sold one printer for cash $540, plus $54 GST (Rec. 72).
24	Sold two printers for $560 cash, plus GST of $56 each (Rec. 73–74)
28	Purchased on credit 10 printers for $3 400 plus $340 GST (Inv. 9231)
30	Sold two printers on credit for $560, plus $56 GST (Inv. 323)
31	Physical stocktake identified 15 printers on hand (Memo 33)

a Prepare a stock card for the AP540 printer using the FIFO assumption.

b Prepare the following general ledger accounts using the transactions above: stock control, cost of sales and sales.

c Explain why the management of some trading firms may decide to adopt FIFO to value inventory.

[Exercise 9.13]

The following information relates to the purchases and sales of product number UZ927 during June 2015. On 1 June there were 10 units of UZ927 on hand with a cost price of $14 each.

Purchases			Sales		
Inv. 64	Jun 2	50 units @ $14.00 each	Jun 3	40 units @ $28 each	Inv. 132
Inv. 69	4	40 units @ $15.00 each	5	15 units @ $28 each	Inv. 135
Inv. 84	9	50 units @ $15.00 each	12	30 units @ $30 each	Inv. 142
Inv. 98	24	50 units @ $16.00 each	19	50 units @ $30 each	Inv. 150
			27	20 units @ $30 each	Inv. 164
			29	20 units @ $32 each	Inv. 168

On 30 June a physical stocktake revealed 27 units on hand (Memo 12).

a Prepare a stock card for product UZ927 using the FIFO inventory assumption.

b Using the transactions listed and your stock card from part **a**, prepare the following general ledger accounts: stock control, cost of sales and sales (under the FIFO assumption).

ISBN 978 1 4202 3058 1

[Exercise 9.14] The following information was extracted from a stock card prepared under the FIFO assumption. The stock card includes all transactions in relation to this stock item for April 2015.

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Apr 9	Rec. 121				4	50	200	9	50	
								20	52	1 490
26	Inv. 812				5	50	250	4	50	
								20	52	1 240

a Explain the difference between the transactions that have been recorded on 9 April and 26 April.

b How many units should be on hand as at 30 April?

c If a physical stocktake completed on 30 April revealed that there were 22 units in stock, what is the value of the stock loss or gain experienced by this business?

d Justify why an adjustment for stock loss/gain should be made on 30 April, with reference to one qualitative characteristic and one principle of accounting.

[Exercise 9.15] Cathy Stagliano is the owner of Perfumes 'R' Us and she has provided the following extract from one of her stock cards. It relates to a product named Temptation, which sells for $70 per bottle.

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
May 22	Inv. 2919				3	35	105	2	35	70
27	Inv. 31456	50	37	1 850				2	35	
								50	37	1 920

a On 30 May Stagliano sold 5 bottles of Temptation perfume for cash at $70 per bottle (Receipt 143). Record this transaction in the stock card, using the FIFO method of cost allocation.

b A physical count of stock conducted on 31 May showed that 49 bottles of Temptation were still in stock. Record the necessary adjustment in the stock card, with reference to Memo 314.

c In light of the transaction recorded on 27 May, should Stagliano adjust her selling price of Temptation? Explain your answer fully, with a new recommended selling price for this product.

ISBN 978 1 4202 3058 1

[Exercise 9.16]

McDermott's Barbecues sells two different models, the Standard and the Deluxe. A stock card is maintained for each model. On 1 July 2015 the general ledger included the following balances:

Cash at bank	$1 280	Creditors	$3 000
Debtors	3 000	GST clearing	2 000
Stock control	5 720	Mortgage loan	100 000
Premises	250 000	Capital	155 000
	260 000		260 000

The transactions for August 2015 are listed below:

Aug 1	Stock on hand—Deluxe 10 @ $380, Standard six @ $320
2	Cash sales of two Deluxe models for $650 each, plus $65 GST (Rec. 101 & 102)
4	Cash sales of three Standard models for $620 each, plus $62 GST per barbecue (Rec. 103–105)
7	Sold for cash three Deluxe models for $650 each, plus GST $65 each (Rec. 106–108)
9	Purchased on credit eight Standard models at $340 per unit, plus GST of $34 (Inv. 535) from BBQs Plus
11	Sold for cash three Deluxe models at $650 each, plus $65 GST (Rec. 109–111)
14	Sold for cash four Standard models at $620 each, plus $62 GST (Rec. 112–115)
17	Purchased 10 Deluxe models on credit for a total of $3900, plus $390 GST (Inv. 919) from BBQs R Us
20	Sold for cash two Standards for $620 each (GST $62) (Rec. 116 & 117) and four Deluxe models at $660 each (GST $66) (Rec. 118–121)
22	Cash sales of one Standard for $630 (plus $63 GST) and one Deluxe for $660 (GST $66) (Rec. 122 & 123)
26	Cash sales of three Standards at $693 each (including $63 GST per barbecue) (Rec. 124–126)
29	Purchased five Standard models on credit for $350 per unit (plus $35 GST) (Inv. 560) from BBQs Plus
31	A physical stocktake showed that five Standard models and six Deluxe models were in stock (Memo 92)

a Prepare the individual stock cards for the two models being sold.

b Adjust the stock cards for any stock losses or gains revealed by the stocktake.

c Record the above transactions in the relevant journals.

d Post the journals prepared in part **c** to general ledger accounts.

e Prepare a trial balance as at 31 August 2015.

f Balance the stock control account and reconcile it with the two stock cards prepared in **a**.

ISBN 978 1 4202 3058 1

[Exercise 9.17] Optima Computer Centre sells both Pendulum 8 and Pendulum 9 computers. The perpetual inventory system is used to record all stock movements.

Cash at bank	$2 350	Creditors	$6 000
Debtors	4 000	GST clearing	2 500
Stock control	13 650	Bank loan	18 000
Shop fittings	35 000	Capital	28 500
	55 000		55 000

The transactions for July 2015 are listed below:

Jul 1 Stock on hand
- Pendulum 8: five units in stock; three with a cost price of $1150 and two with a cost of $1 100
- Pendulum 9: five with a cost of $1 600

3 Sold for cash one Pendulum 9 for $2 900 plus GST of $290 (Rec. 633) and two Pendulum 8 computers for $2 100 each, plus $210 GST (Rec. 634)

4 Purchased on credit six Pendulum 8 computers for $1 180 each, plus GST of $118 (Inv. 838) from Ace Computers

5 Cash sales of two Pendulum 8 machines for $2 200 each, plus $220 GST (Rec. 635) and one Pendulum 9 for $2 900, plus $290 GST (Rec. 636)

8 Purchased on credit six Pendulum 9 computers for $1 870, each including $170 GST per computer (Inv. 923) (Ace Computers)

10 Sold for cash two Pendulum 9 computers at $2 900 each, plus $290 GST (Rec. 637)

16 Sold for cash three Pendulum 8s for $2 200 each, plus $220 GST (Rec. 638–640) and two Pendulum 9s for $3 200 each, plus $320 GST (Rec. 641–642)

19 Sold for cash two Pendulum 8 computers, one for $2 200 and the other for $2 000 (GST $220 and $200 respectively) (Rec. 643–644)

21 Purchased on credit 10 Pendulum 8 computers for $1 210, including $110 GST (Inv. 852) (Ace Computers)

24 Sold one Pendulum 9 and one Pendulum 8 for cash: $3 100, plus $310 GST and $2 100 plus $210 GST (Rec. 645 & 646)

26 Sold three Pendulum 8 computers: one for $2 200 plus $220 GST and the other two for $2 150 each, plus $215 GST (Rec. 647–649)

28 Purchased eight Pendulum 9 computers on credit for $13 200 plus $1 320 GST. Total of Invoice no. 932: $14 520 (Ace Computers)

31 A physical stocktake showed that six Pendulum 8 computers and 11 Pendulum 9 models were in stock (Memo A21)

a Prepare the individual stock cards for the two models being sold, including any adjustments required for stock losses or gains.

b Record the transactions in the relevant journals.

ISBN 978 1 4202 3058 1

c Post your journals to the general ledger accounts and prepare a trial balance as at 31 July 2015.

d Balance the stock control account and reconcile it with the two stock cards prepared in **a**.

[Exercise 9.18]

Tim Buszard is the owner of Buzzy's Blinds, a small business that sells two sizes of venetian blinds as part of their range of products. The smaller size is designed for a single window and usually sells for $250 per unit. The larger size is suitable for a double window and these blinds usually sell for $450 per blind. Buszard applies the FIFO method to all stock cards maintained for his business. The following transactions occurred during June 2015:

Jun 1	Stock on hand: Singles: 25 blinds, 10 with a cost price of $120 and 15 with a cost price of $125 Doubles: 15 blinds, all costing $230 each
3	Cash sale of six single blinds for $250 each (Rec. 139)
5	Sold three double blinds for $450 cash (Rec. 140)
7	Cash sale of five double blinds for $450 (Rec. 141)
9	Purchased 25 more double blinds at a cost of $240 each (Inv. 7546)
11	Sold six single blinds for $260 cash (Rec. 142)
14	Sold 10 single blinds for $2 400 and five double blinds for $2 150 to Carlton College (Inv. 1333)
17	Purchased 30 single blinds for $127 each (Inv. 7566)
19	Buszard donated two single blinds to the local cricket club. The club secretary has agreed to hang a sign in the clubrooms to advertise Buszard's business (Memo 82)
20	Sold four single blinds for $250 each (Rec. 143)
23	Cash sale of six double blinds for $450 each (Rec. 144)
25	Sold one single and one double for a total of $700 (Rec. 145)
28	Sold three double blinds for $1 300 in total (Inv. 1334)
30	A physical stock take revealed the following quantities on hand at the end of the month: single blinds: 24, double blinds: 16 (Memo 83)

a Prepare a stock card for each of the two types of blinds sold by Buszard's Blinds.

b Adjust your stock cards for any stock losses or gains revealed by the 30 June stocktake.

c If Buszard's Blinds only sold these two stock items, what should the balance of the stock control account be as at 30 June 2015?

ISBN 978 1 4202 3058 1

[Exercise 9.19]

Doncaster Discs is a trading firm that sells a range of merchandise. Part of its stock includes storage cases for DVDs and CDs. On 1 June 2015 the business had the following stock on hand: 324 DVD cases and 280 CD cases. The stock cards for these two items included the following details at the start of the month:

DVD cases:	24 @ $0.60	$ 14.40	CD cases:	80 @ $0.20	$16.00
	300 @ $0.65	$195.00		200 @ $0.25	$50.00
	324	$209.40		280	$66.00

The following transactions occurred during June 2015:

Jun 2	Sold 20 DVD cases for cash at $1.00 each (Rec. 593)
3	Purchased on credit 200 DVD cases at a cost of $0.62 each (Inv. 132)
4	Sold for cash 40 CD cases for $0.50 each (Rec. 594)
5	Cash sale of 80 CD cases for $0.50 each (Rec. 595)
7	Sold 50 DVD cases for $1.00 each (Rec. 596)
9	Issued Receipt no. 597 for a cash sale of 60 CD cases for $0.50 each
11	Cash sale: 100 DVD cases for $0.90 each (Rec. 598)
14	Purchased on credit 200 CD cases @ $0.27 each (Inv. 142)
16	Sold for cash 100 CD cases and 50 DVD cases for $45 and $50 respectively (Rec. 599)
18	Sold 40 DVD cases for $40 (Rec. 600)
20	Cash sale: 80 CD cases for $40 (Rec. 601)
23	Issued Receipt no. 602 for a cash sale of 100 DVD cases (for $90) and 20 CD cases ($10). Total sale $100
24	Purchased on credit 200 DVD cases @ $0.65 each and 200 CD cases @ $0.24 each (Invoice 4324)
25	Sold for cash 50 DVD cases $45 (Rec. 603)
28	Cash sale of 30 CD cases for $15 (Rec. no. 604)
30	Physical stocktake completed. Quantities on hand: DVD cases 314; CD cases 280 (Memo 321)

a Prepare a stock card for June for each of the two types of cases sold by the business.

b Make any adjustments required as a result of the physical counting of stock on 30 June.

c Comment on the owner's level of control over his inventory, given the results of the 30 June stocktake.

d Identify one problem created by Doncaster Discs in relation to its buying of inventory. Explain why this may be detrimental to the profit performance of this business.

ISBN 978 1 4202 3058 1

Chapter 10

Closing the general ledger

OBJECTIVES

At the completion of this chapter, you should be able to:

- describe what is involved in the closing of the general ledger
- distinguish between closing an account and balancing an account
- state which accounts are closed and which are balanced
- explain the importance of the closing procedure
- prepare general journal entries to close the relevant accounts
- post closing entries to the relevant general ledger accounts
- prepare a profit and loss summary account in the general ledger
- prepare a general journal entry to transfer a net profit or loss to the owner's capital account
- prepare a general journal entry to close the owner's drawings account to the capital account.

ISBN 978 1 4202 3058 1

10.1 The closing of the general ledger

Once a trial balance has been prepared at the end of a reporting period, there are two basic procedures still to be performed. These are:

1 determining the profit earned by the firm during the reporting period
2 preparing the ledger accounts in readiness for the new reporting period.

In order to complete these tasks, a distinction must be made between the accounts used for profit determination and those used for preparing the balance sheet. Profit is the excess of revenue over expenses for a given period of time. In order to calculate a profit, the revenue and expense accounts in the general ledger are used. This leaves the account classifications of assets, liabilities and owner's equity, which make up the accounting equation. This is an important distinction, as revenue and expense accounts must be closed off on balance day. The accounts reported as assets, liabilities or owner's equity are formally balanced in the usual way (as outlined in chapter 4).

The purpose of the closing procedure is two-fold. First, the balances of the revenue and expense accounts are transferred to one account in order to determine the net profit of the firm. The second purpose is to return the balance of all revenues and expenses to zero. This is vitally important to the accounting system, as one period's revenue and expenses must not be mixed up with those of the following period. If this were allowed to happen, profit determination for a given period would become most difficult, if not impossible. Therefore, on balance day of every reporting period, all revenue and expense accounts are closed off and have a zero balance in preparation for the new reporting period.

10.2 The profit and loss summary account

The **profit and loss summary account** is a general ledger account used to gather the balances of all revenue and expense accounts in order to calculate the **net profit** of a business. It is classified as a profit determination account, which is a temporary owner's equity account. The Profit and Loss (P&L) Summary account is only used on balance day; when accounts are closed off, their balances are transferred to the profit and loss summary account (also referred to as the P&L summary account). Figure 10.1 shows an example of a Profit and Loss Summary account.

Figure 10.1 Profit and loss summary account showing a net profit

Profit and loss summary a/c

2015		$	2015		$
Mar 31	Expense accounts	55 000	Mar 31	Revenue accounts	70 000
	Capital (net profit)	15 000			
		70 000			70 000

Although the procedures of closing entries have not yet been fully introduced, the following features of the above P&L summary account can be noted at this stage:

1 The total of all revenue accounts appears on the credit side of the P&L summary account.
2 The total of all expense accounts appears on the debit side of the P&L summary account.
3 As profit equals revenue less expenses ($70 000 – $55 000), the net profit of the firm is $15 000.

The profit, as calculated, has been entered in the P&L Summary account as capital, since the profit for a period has the effect of increasing the owner's Capital account. Therefore the $15 000 profit in this example is being transferred to the Capital account of the proprietor. The full sequence of events that occur in the closing process are introduced in section 10.3.

10.3 Closing a ledger account

The closing of a ledger account involves making an entry in the account opposite to the balance of the account. In a revenue account, which usually has a credit balance, the **closing entry** is made on the debit side. As expense accounts usually have debit balances, the closing entries would be made on the credit side of the account. Consider the accounts shown below, which were used to determine the totals of revenues and expenses in the P&L Summary shown previously as figure 10.1.

General ledger

Cash sales a/c

		$			$
			Mar 31	Cash at bank	60 000

Credit sales a/c

			Mar 31	Debtors control	10 000

Cost of sales a/c

Mar 31	Stock control	35 000			

Wages a/c

Mar 31	Cash at bank	15 000			

Advertising a/c

Mar 31	Cash at bank	5 000			

The above accounts reflect the transactions involving revenues and expenses for the year ended 31 March 2015. In this example it is evident that the balances of the revenue accounts are $60 000 in the cash sales account and $10 000 in credit sales. The expenses of the firm include cost of sales of $35 000, wages of $15 000 and $5 000 of advertising. When the closing entries are posted to these ledger accounts they will appear as follows:

General ledger

Cash sales a/c

		$			$
Mar 31	P&L summary	60 000	Mar 31	Cash at bank	60 000

continued

ISBN 978 1 4202 3058 1

Credit sales a/c

		$			$
Mar 31	P&L summary	10 000	Mar 31	Debtors control	10 000

Cost of sales a/c

Mar 31	Stock control	35 000	Mar 31	P&L summary	35 000

Wages a/c

Mar 31	Cash at bank	15 000	Mar 31	P&L summary	15 000

Advertising a/c

Mar 31	Cash at bank	5 000	Mar 31	P&L summary	5 000

Note how the closing entries are on the opposite side to the balances of the accounts. When the closing entries are made, the account balances are brought back to zero. As with all entries in double entry accounting, every debit must be paired with a credit and vice versa. In the above example, the other account affected in the double entry is the P&L summary account. As shown previously, this account gathers together all of the revenue and expense account balances. Using the above five accounts as an example, the entries in the P&L summary account would appear as follows:

Profit and loss summary a/c

		$			$
Mar 31	Expense accounts	55 000	Mar 31	Revenue accounts	70 000

Note that there is no necessity to individually list the revenue and expense items in the P&L summary account. As it is a summary of a firm's revenues and expenses for a reporting period, the only detail required is a total figure for both revenues and expenses. However, it is vital to ensure that each individual revenue and expense account is closed off to the P&L summary account so that at the start of the next reporting period all such accounts begin with a zero balance.

10.4 The general journal and closing entries

As with any entry in the general ledger, the entries shown above must originate in a journal entry. Closing entries are irregular entries made only on balance day and are therefore created via the general journal. The general journal entries for the accounts shown above would be prepared as shown in figure 10.2 on page 216.

As one of the purposes of closing entries is to reset all revenue and expense accounts to zero, every account in these categories must be named in the general journal as part of the closing process. However, when there are numerous accounts, the entries may be joined together for greater efficiency. Therefore, when the expenses of a firm are being closed to the P&L summary account, they can be grouped in the one entry as shown in figure 10.2 on the next page.

ISBN 978 1 4202 3058 1

Figure 10.2 General journal closing entries

General journal

Date	Details	General ledger Debit	General ledger Credit	Subsidiary ledger Debit	Subsidiary ledger Credit
Mar 31	Cash sales	60 000			
	Credit sales	10 000			
	P&L summary		70 000		
	Closing entries				
	P&L summary	55 000			
	Cost of sales		35 000		
	Wages		15 000		
	Advertising		5 000		
	Closing entries				

It should be noted that, when there are numerous revenue accounts, these too can be grouped together in the one general journal entry. This means that there will usually be three general journal entries made to complete the closing of the ledger. One journal entry is used to close all revenues, one closes all expenses and the final entry closes the P&L summary account by transferring the net profit to the capital account. This final entry is introduced in section 10.5.

10.5 The general journal: transfer of net profit

Once all the balances of revenues and expenses have been transferred to the P&L summary account, the final task is to calculate the profit (or loss) earned for the period. This final step also closes off the P&L summary account, as the difference between revenues and expenses is the profit figure. When the profit figure is entered in the P&L summary account, both sides of the account become equal and therefore the P&L summary account also becomes closed. The profit figure is transferred to the owner's capital account and the closing process is then concluded. Using the data from figure 10.2, the transfer of net profit is shown in figure 10.3.

Figure 10.3 General journal entry to transfer net profit

General journal

Date	Details	General ledger Debit	General ledger Credit	Subsidiary ledger Debit	Subsidiary ledger Credit
Mar 31	P&L summary	15 000			
	Capital		15 000		
	Transfer of net profit				

ISBN 978 1 4202 3058 1

In addition to the transfer of net profit to the capital account, the drawings of the proprietor must also be closed at the end of the period. As drawings is a negative owner's equity account, it has the effect of decreasing the owner's capital. If the owner in the above example had drawings of $10 000 for the quarter, the general journal entry required would be as shown in figure 10.4.

Figure 10.4 **General journal entry to transfer drawings**

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Mar 31	Capital Drawings Transfer of drawings	10 000	10 000		

The posting of the two journal entries shown in figures 10.3 and 10.4 result in the following entries in the general ledger. (An opening balance of $200 000 has been entered for the capital account, to create a realistic example.)

Drawings a/c

		$			$
Mar 31	Cash at bank	10 000	Mar 31	Capital	10 000

Capital a/c

Mar 31	Drawings	10 000	Jan 1	Balance	200 000
Mar 31	Balance	205 000	Mar 31	P&L summary	15 000
		215 000			215 000
			Apr 1	Balance	205 000

In the capital account above, there are four entries that are typical for this owner's equity account. The first entry (Jan 1) represents the balance of the owner's capital at the start of the period. The result from the P&L summary account (a profit of $15 000) has been transferred to the capital account and causes an increase in the owner's equity. The drawings by the owner have the opposite effect on the capital account. The debit to capital reduces the owner's equity, while at the same time returning the drawings account to zero for the new reporting period. A summary of such information is usually presented as part of the firm's balance sheet on balance day. The details of the capital account would be reported in the balance sheet as follows:

Balance sheet (extract) as at 31 March 2015

Owner's equity	*$*	*$*	*$*
Capital	200 000		
plus net profit	15 000	215 000	
less drawings		10 000	205 000

It should be kept in mind that the general ledger is a formal accounting record used by accountants. From time to time information from ledger accounts is reported to the users of accounting information, some of them non-accountants. The report extract shown above repeats exactly what has been recorded in the owner's capital account. However, it becomes part of an overall report that should be easily read by individuals who may not have a thorough accounting background. (This is in line with the demands of one of the qualitative characteristics of accounting—that of *understandability*.) Although this may appear to be an unnecessary duplication of the one task, it is simply fulfilling one function of the accounting system. It should always be remembered that the accounting system is often called upon to present information for a variety of purposes to a wide range of users. It is common practice to extract information from ledger accounts and use it to compile valuable reports for other individuals.

10.6 Closing entries: accounting for a net loss

The former closing entries have all demonstrated the situation of a firm earning a profit. Unfortunately, this may not always be the case. When a business earns a **net loss**, a slight adjustment has to be made in the closing process. A loss occurs when the expenses closed off to the P&L summary account exceed the revenues. This means that the debit entries to P&L summary exceed the credits. To close off such a P&L summary account, a credit entry is therefore required. The corresponding debit will be made in the capital account, thereby reducing the owner's equity. Figure 10.5 shows a P&L summary account when a loss has been incurred by a business.

Figure 10.5 Profit and loss summary account showing a net loss

Profit and loss summary a/c

2015		$	2015		$
Jun 30	Expense accounts	500 000	Jun 30	Revenue accounts	450 000
				Capital (net loss)	50 000
		500 000			500 000

The general journal entry required to transfer a net loss to the owner's capital account is shown in figure 10.6.

Figure 10.6 General journal entry showing transfer of a net loss

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Jun 30	Capital P&L summary Transfer of net loss	5 000	5 000		

ISBN 978 1 4202 3058 1

When preparing the journal entry to transfer a profit or a loss, it should always be kept in mind that this entry must transfer the final figure to the capital account and also close off the P&L summary account itself. One must ensure that the total debits made to the P&L summary account are equal to the total credit entries made. The other helpful hint to remember is that a profit will always increase owner's equity and therefore must be a credit to the capital account. If a loss is made for a period, this will cause a decrease to owner's equity and therefore must result in a debit entry to capital.

10.7 Case study: the closing of the ledger

Although all of the steps involved in the closing process have been outlined, this case study examines the entire process from trial balance through to the transfer of net profit and drawings. The aim of the case study is to demonstrate the closing procedures from start to finish to allow the reader to follow the entries from the general journal through to the general ledger. If a trial balance has been prepared at the end of the reporting period and no recording errors have been detected, the closing of the ledger can then be commenced.

The information shown below relates to Cartwright's Cleaning Products, a small business owned and managed by Simon Cartwright.

Cartwright's Cleaning Products: adjusted trial balance as at 30 June 2015

	$		$
Cash at bank	8 000	GST clearing	1 000
Debtors control	5 000	Creditors control	1 000
Stock control	55 000	Loan—NAB	5 000
Cost of sales	24 000	Cash sales	55 000
Stock loss	1 000	Credit sales	5 000
Insurance	2 000	Capital	80 000
Advertising	1 000		
Wages	20 000		
Vehicle	22 000		
Vehicle expenses	2 000		
Drawings	7 000		
	147 000		147 000

The general journal entries necessary to complete the closing process will be shown first, followed by the general ledger accounts. In order to prepare the entries in the general journal, the revenue and expense accounts in the trial balance must first be identified. Having done this, the entries on the next page can be completed.

ISBN 978 1 4202 3058 1

Cartwright's Cleaning Products: general journal

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Jun 30	Cash sales	55 000			
	Credit sales	5 000			
	P&L summary		60 000		
	Closing entries				
	P&L summary	50 000			
	Cost of sales		24 000		
	Stock loss		1 000		
	Advertising		1 000		
	Insurance		2 000		
	Wages		20 000		
	Vehicle expenses		2 000		
	Closing entries				
	P&L summary	10 000*			
	Capital		10 000		
	Transfer of net profit*				
	Capital	7 000			
	Drawings		7 000		
	Transfer of owner's drawings				

*The net profit is calculated from the first two journal entries. As total revenue closed to the P&L summary account was $60 000 and total expenses closed off were $50 000, the net profit must be $10 000. These closing entries are then posted to the general ledger and the accounts will be as follows.

Cartwright's Cleaning Products: general ledger

Cash at bank a/c

		$			$
Jun 30	Balance	8 000			

Debtors control a/c

Jun 30	Balance	5 000			

Stock control a/c

Jun 30	Balance	55 000			

Cost of sales a/c

Jun 30	Stock control	24 000	Jun 30	P&L summary	24 000

Stock loss a/c

Jun 30	Stock control	1 000	Jun 30	P&L summary	1 000

continued

ISBN 978 1 4202 3058 1

Insurance a/c

		$			$
Jun 30	Cash at bank	2 000	Jun 30	P&L summary	2 000

Advertising a/c

Jun 30	Cash at bank	1 000	Jun 30	P&L summary	1 000

Wages a/c

Jun 30	Cash at bank	20 000	Jun 30	P&L summary	20 000

Vehicle a/c

Jun 30	Balance	22 000			

Vehicle expenses a/c

Jun 30	Cash at bank	2 000	Jun 30	P&L summary	2 000

Drawings a/c

Jun 30	Cash at bank	7 000	Jun 30	Capital	7 000

GST clearing a/c

			Jun 30	Balance	1 000

Creditors control a/c

			Jun 30	Balance	1 000

Loan—National Australia Bank a/c

			Jun 30	Balance	5 000

Cash sales a/c

Jun 30	P&L summary	55 000	Jun 30	Cash at bank	55 000

Credit sales a/c

Jun 30	P&L summary	5 000	Jun 30	Debtors control	5 000

P&L summary a/c

Jun 30	Expense accounts	50 000	Jun 30	Revenue accounts	60 000
	Capital	10 000			
		60 000			60 000

Capital—Cartwright a/c

Jun 30	Drawings	7 000	Jun 30	Balance	80 000
	Balance	83 000		P&L summary	10 000
		90 000			90 000
			Jul 1	Balance	83 000

ISBN 978 1 4202 3058 1

Once the closing entries have been completed, the final accounting reports for the period can be prepared. The accounts used to determine profit (that is, revenues and expenses) are reported in the income statement. The balance sheet is then prepared using the remaining accounts (assets, liabilities and owner's equity). Chapter 11 provides a detailed examination of the income statement. However, at this stage it should be understood that a balance sheet may be prepared once the P&L summary account has been finalised. Having completed the accounts for Cartwright's Cleaning Products, the balance sheet can be prepared as follows:

Cartwright's Cleaning Products: balance sheet as at 30 June 2015

Current assets	$	$	*Current liabilities*	$	$	$
Cash at bank	8 000		GST clearing		1 000	
Debtors control	5 000		Creditors control		1 000	
Stock control	55 000	68 000	Loan—NAB		5 000	7 000
			Owner's equity			
Non-current assets			Capital	80 000		
Vehicle		22 000	plus net profit	10 000	90 000	
			less drawings		7 000	83 000
		$90 000				$90 000

› GLOSSARY OF TERMS

closing entry a general journal entry used to close off a revenue or expense account.

net loss the result reported when the expenses for a reporting period exceed the revenue for that same particular reporting period.

net profit the result reported when the revenues for a reporting period exceed the expenses for that particular reporting period.

profit and loss summary account a general ledger account used to summarise all revenues and expenses for a reporting period, with the difference being the profit or loss over that time.

ISBN 978 1 4202 3058 1

Summary questions

1. Explain what is meant by 'closing the ledger'.
2. Distinguish between closing and balancing a ledger account.
3. State and explain two reasons why ledger accounts must be closed.
4. What types of ledger accounts are closed? Why are some accounts not closed?
5. Which journal is used to prepare closing entries? Explain why this journal is used.
6. Describe the purpose of the P&L summary account.
7. What is the nature of the P&L summary account? Explain your answer fully.
8. On which side (debit or credit) of the P&L summary account would you find:
   - **a** revenue accounts
   - **b** expense accounts
   - **c** a net profit?
9. State the double entry required to transfer a net profit to a capital account.
10. State the double entry required to transfer drawings to a capital account.
11. Explain why the drawings account is closed off to capital and not to the P&L summary account.

Practical exercises

[Exercise 10.1] The following information relates to Prahran Pottery Products:

General ledger

Cash sales a/c

		$			$
			Jan 31	Cash at bank	30 000

Cost of sales a/c

Jan 31	Stock control	16 200			

Vehicle expenses a/c

Jan 31	Cash at bank	2 800			

Capital a/c

			Jan 1	Balance	40 000

ISBN 978 1 4202 3058 1

a Prepare the general journal entry to close the cash sales revenue account.

b Prepare the general journal entry to close the two expense accounts.

c Prepare the general journal entry to transfer the net profit (or loss) to the owner's capital account.

d Prepare the profit and loss summary account and the capital account for the month of January 2015.

[Exercise 10.2]

The following ledger accounts were found in the general ledger of Ossie's Outdoor Furniture:

Cash at bank a/c

		$			$
Feb 1	Balance	18 000	Feb 28	Cash payments	5 455
28	Cash receipts	5 060			

Stock control a/c

Feb 28	Balance	10 000	Feb 28	Cost of sales	2 560

Cost of sales a/c

Feb 28	Stock control	2 560			

Capital a/c

			Feb 1	Balance	23 000

Equipment a/c

Feb 1	Balance	5 000			
28	Cash at bank	2 000			

Advertising a/c

Feb 28	Cash at bank	500			

Insurance a/c

Feb 28	Cash at bank	400			

Drawings a/c

Feb 28	Cash at bank	500			

Wages a/c

Feb 28	Cash at bank	1 600			

Stationery a/c

Feb 28	Cash at bank	150			

continued

ISBN 978 1 4202 3058 1

Cash sales a/c

		$			$
			Feb 28	Cash at bank	4600

Credit sales a/c

			Feb 28	Debtors control	8000

Debtors control a/c

Feb 28	Sales/GST clearing	8800			

GST clearing a/c

Feb 28	Cash at bank	305	Feb 28	Cash at bank	460
				Debtors control	800

a Prepare the required general journal entries to close off the relevant ledger accounts to the profit and loss summary account.

b Prepare general journal entries to transfer the net profit (or loss) and drawings to the capital account of the proprietor.

c Copy the revenue and expense accounts and post the closing entries to these accounts.

d Prepare the profit and loss summary account, the capital account and the drawings account as they would appear in the general ledger for February 2015.

e Show how the owner's equity section of the balance sheet would be prepared as at 28 February 2015.

ISBN 978 1 4202 3058 1

[Exercise 10.3]

Rachel Ratliff is the owner of City Office Supplies and has supplied the following trial balance at the end of a six-month reporting period:

City Office Supplies: trial balance as at 31 March 2015

	$		$
Advertising	1 200	Capital—Ratliff	70 000
Assistant's wages	12 400	Cash at bank	2 620
Cost of sales	18 300	Commission revenue	1 650
Debtors control	3 880	Creditors control	4 520
Drawings	13 000	GST clearing	3 000
Interest expense	1 540	Loan—M.B. Finance	27 000
Office equipment	3 400	Sales	41 200
Petrol	1 750		
Postage	100		
Rent	11 000		
Stock control	46 400		
Telephone expense	620		
Vehicle	35 000		
Vehicle insurance	660		
Vehicle registration	740		
	149 990		149 990

a Prepare the closing entries in the general journal, including the transfer of profit and drawings.

b Prepare the P&L summary account and capital account in the general ledger.

c Prepare the following general ledger accounts: sales, commission revenue, advertising, cost of sales, petrol and drawings.

d Prepare the owner's equity section of the balance sheet as at 31 March 2015.

ISBN 978 1 4202 3058 1

[Exercise 10.4]

Greg Smyth is the owner of Premium Golf Gear and has supplied the following trial balance at the end of the yearly reporting period:

Premium Golf Gear: trial balance as at 30 April 2015

	$		$
Advertising	3 000	Capital—Smyth	96 350
Cash at bank	3 000	Cash sales	94 000
Cost of sales	42 500	Credit sales	11 470
Debtors control	3 200	Creditors control	7 700
Drawings	14 000	GST clearing	480
Electricity	760	Loan—G.M. Finance	36 000
Insurance	1 100	Mortgage loan	420 000
Interest on loan	5 200		
Office furniture	900		
Postage	120		
Premises	500 000		
Rates	1 000		
Shop fittings	12 000		
Stationery	240		
Stock control	44 480		
Stock loss	500		
Telephone expense	640		
Vehicle	12 000		
Vehicle expenses	1 360		
Wages	20 000		
	666 000		666 000

a Prepare all relevant closing entries in the general journal, including the transfer of profit and drawings.

b Prepare the profit and loss summary account and capital account in the general ledger.

c Prepare the owner's equity section of the balance sheet as at 30 April 2015.

ISBN 978 1 4202 3058 1

[Exercise 10.5] The following information relates to the business of Noonan's Equipment Sales:

Noonan's Equipment Sales: trial balance as at 31 May 2015

	Debit $	*Credit* $
Cash at bank	3 200	
GST clearing		4 020
Telephone expense	740	
Electricity	530	
Stock control	59 000	
Discount revenue		680
Investment account	8 600	
Advertising	1 680	
Loan—Handy Finance		142 500
Debtors control	2 870	
Repairs to premises	1 040	
Capital—Noonan		286 000
Assistant's wages	22 180	
Sales—cash		74 600
Sales—credit		38 200
Interest expense	1 470	
Drawings—Noonan	9 720	
Stationery	245	
Creditors control		6 800
Cost of sales	53 200	
Commission		1 800
Accountant's fees	600	
Premises	385 000	
Stock gain		400
Discount expense	325	
Cleaning of premises	4 600	
	555 000	555 000

a Prepare the general journal entries required to complete the closing of the general ledger, including the transfer of the net profit (or loss) and the owner's drawings.

b Prepare the following general ledger accounts: profit and loss summary, drawings and capital.

c Prepare a classified balance sheet as at 31 May 2015.

d Explain why closing entries should be done. Your answer should refer to the relevant accounting principle.

ISBN 978 1 4202 3058 1

[Exercise 10.6]

Darren Hughes is the owner of Hughes' Hardware and has provided the following information in relation to his business:

Hughes' Hardware: adjusted trial balance as at 30 June 2015

	Debit *$*	*Credit* *$*
Advertising	1 240	
Bank		2 160
Capital—Hughes		75 740
Carry bags	1 420	
Cash sales		93 000
Cleaning of shop	1 260	
Computer equipment	8 500	
Cost of sales	47 300	
Credit sales		28 200
Creditors control		5 300
Debtors control	3 870	
Delivery van	26 000	
Discount expense	100	
Drawings	18 900	
Electricity	490	
General office expenses	2 100	
GST clearing		2 600
Interest on loan	1 200	
Interest on term deposit		600
Legal expenses	430	
Loan—Auto Finance (due 1/3/2016)		13 400
Loan—NAB (repayable over four years)		12 000
Maintenance—computers	920	
Office stationery expense	430	
Rent of shop	32 400	
Stock control	32 500	
Stock loss	2 100	
Telephone expense	740	
Term deposit	14 500	
Wages—sales staff	36 600	
	233 000	233 000

a Prepare the general journal entries required to complete the closing of the general ledger, including the transfer of the net profit (or loss) and the owner's drawings.

b Prepare the following general ledger accounts: profit and loss summary, drawings and capital.

ISBN 978 1 4202 3058 1

c Prepare a classified balance sheet as at 30 June 2015.

d 'Closing entries are done in order to satisfy a qualitative characteristic of accounting.' State the qualitative characteristic and explain how closing entries help meet the demands of this characteristic.

[Exercise 10.7]

Ann Nelson owns and manages Clocks & Watches and she has provided the following information at the end of her yearly reporting period:

Clocks & Watches: adjusted trial balance as at 31 March 2015

	$		$
Bad debts	1 200	Capital—Nelson	353 600
Cash at bank	2 200	Creditors control	25 500
Computer maintenance	700	Discount revenue	140
Computer system	5 400	Finance Co. loan	22 000
Cost of sales	81 400	GST clearing	4 320
Courier charges	980	Mortgage loan	314 000
Debtors control	3 200	Sales—cash	120 600
Discount expense	300	Sales—credit	42 400
Display equipment	25 000		
Drawings	18 600		
Heating & lighting	1 240		
Insurance expense	1 800		
Interest	6 400		
Land & buildings	642 000		
Office expenses	1 900		
Postage expense	650		
Promotion costs	3 120		
Rates	2 400		
Salaries	26 000		
Stock control	56 350		
Stock loss	800		
Telephone expense	920		
	882 560		882 560

Additional information:
—the Finance Company loan is repayable at the rate of $200 per week
— the Mortgage loan requires monthly repayments of $650

a Prepare all relevant closing entries in the general journal, including the transfer of profit and drawings.

b Prepare the profit and loss summary account, the drawings account and the capital account in the general ledger.

c Prepare a fully classified balance sheet as at 31 March 2015.

d Explain how your balance sheet helps satisfy the demands of the qualitative characteristic of *understandability*.

ISBN 978 1 4202 3058 1

Chapter 11

Income statements

OBJECTIVES

At the completion of this chapter, you should be able to:

- explain the purpose of an income statement
- prepare an income statement from general journal closing entries
- prepare an income statement from a trial balance
- explain the link between income statements and understandability
- explain the term 'cost of goods sold'
- distinguish between the terms 'cost of sales' and 'cost of goods sold'
- distinguish between gross profit and adjusted gross profit
- explain how discount expense and discount revenue should be reported
- describe the link between an income statement and a balance sheet
- evaluate a profit figure using a variety of benchmarks.

ISBN 978 1 4202 3058 1

11.1 The income statement

The profit and loss summary account in the general ledger has the purpose of closing off revenue and expense accounts on balance day. This closing-off procedure is necessary because balances in such accounts are not relevant to the following reporting period. As part of this closing-off procedure, the profit and loss summary account (commonly abbreviated to P&L summary account) also works out the profit (or loss) for the period. This process takes place in the general ledger via the general journal. It is the final step in the double entry system at the end of each reporting period. However, those users of accounting with little or no accounting background do not easily understand the workings of the double entry system and closing entries. There is a need, therefore, to provide an alternative means of communicating information about a firm's revenue, expenses and profit for a particular reporting period.

The **income statement** is a report prepared at the end of each reporting period to convey information about such items. It uses the same information as is summarised in the profit and loss summary account, except that it is set out in a more informative manner. As a general rule, accounting reports are expected to convey meaningful information to the users of the reports (refer SAC2: *relevance*). The income statement should be prepared in such a way as to be easily understood by non-accountants. Therefore it should follow a simple approach, with emphasis placed on its presentation (refer SAC2: **understandability**).

11.2 Preparing an income statement

The basic purpose of the income statement is to report on the profit performance of the business over a given period. In order to do so, the report states the revenue of a business for the period and deducts the expenses. The difference is the **net profit** (or loss). Consider the general journal shown below, which includes the closing entries made on 31 December 2015 in the books of Servello's Shoes:

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Dec 31	Cash sales	90 000			
	Credit sales	40 000			
	P&L summary		130 000		
	Closing entries				
	P&L summary	105 000			
	Cost of sales		55 000		
	Advertising		5 000		
	Wages		19 500		
	Telephone		600		
	Stationery		400		
	Office rent		24 000		
	Delivery expenses		500		
	Closing entries				
	P&L summary	25 000			
	Capital		25 000		
	Transfer of net profit				

ISBN 978 1 4202 3058 1

The general journal entries are then posted to the P&L summary account as follows:

P&L summary a/c

		$			$
Dec 31	Expense accounts	105 000	Dec 31	Revenue accounts	130 000
	Capital	25 000			
		130 000			130 000

The net profit figure is clearly shown in the P&L summary account above. The objective of closing off all revenue and expense accounts is also achieved. However, there is also a need to provide information about the revenues and expenses of a business in a clear, informative manner. Using the information provided above, a formal income statement can be prepared as shown in figure 11.1.

Figure 11.1 Income statement

Servello's Shoes: income statement for year ended 31 December 2015

	$	$
Revenue		
Cash sales	90 000	
Credit sales	40 000	130 000
less Cost of sales		55 000
Gross profit		75 000
less Expenses		
Advertising	5 000	
Wages	19 500	
Telephone	600	
Stationery	400	
Office rent	24 000	
Delivery expenses	500	50 000
Net profit		25 000

The above income statement demonstrates the format of such a report. Headings and labels should be used to highlight the key areas of the report. For example, in the above report the **gross profit** made on the sales is clearly labelled, as is the **net profit**. The title of the report should always indicate the length of the reporting period. This is vital when anyone is interpreting the performance of a business. For example, in the above statement a profit of $25 000 has been determined for this reporting period. To evaluate this profit figure, the period of time is paramount. A $25 000 profit over a year may be seen as satisfactory, but the same profit over six months may be viewed as exceptional. The length of the period is also important when comparing results from one period to a previous period. There is little point in comparing profit for six months with a weekly result. Therefore, the length of the reporting period should always appear in the title of an income statement.

ISBN 978 1 4202 3058 1

11.3 The link between profit and the balance sheet

As was demonstrated in chapter 10, the net profit or loss earned by a business affects the owner's equity as reported in the balance sheet. As the owner is entitled to all profits earned by the firm, the net profit becomes part of the owner's equity. If a loss is incurred, it will cause a decrease in the owner's equity and this is also reported in the balance sheet. Once a trial balance has been finalised, the income statement and balance sheet can be prepared. These two reports take care of the five basic classifications of accounts, as shown in figure 11.2.

Figure 11.2 The link between the two financial statements

INCOME STATEMENT	BALANCE SHEET
Revenue less **E**xpenses	**A**ssets = **L**iabilities + **O**wner's equity
= Profit	Capital + Profit – Drawings

The basic accounting system has now been covered in this text. From the starting point of source documents, transactions have been entered in journals, posted to ledger accounts, and checked by a trial balance. The information in the trial balance has then been used to prepare the two major financial statements. This allows an owner to determine a net profit result for a reporting period and to state the accounting equation of the business at the end of that period.

11.4 Evaluating a net profit figure

When an income statement has been completed it should not be seen as the end of the accounting process. It is important to be able to assess the profit figure in order to evaluate the performance of the business. As has already been pointed out, the length of the reporting period is a basic consideration when evaluating the profit earned. However, there are several other measures commonly used to evaluate profit and they include the following:

1 **Comparing the profit earned in the current period with that earned in previous periods**
This comparison provides management with a profit trend over time. This may indicate an improvement in the profit performance or a declining profit trend. Two or three consecutive profit figures provide much more information than one isolated period. Consider the profit figures of the two firms shown below:

Profits earned in:	*2011*	*2012*	*2013*	*2014*	*2015*
	$	*$*	*$*	*$*	*$*
Firm A:	1 000	5 000	20 000	40 000	45 000
Firm B:	90 000	80 000	70 000	60 000	45 000

If 2015 was viewed in isolation, the only statement that could be made would be that both firms earned a profit of $45 000. However, the performance of the two firms is somewhat different when the five-year trend is taken into account.

ISBN 978 1 4202 3058 1

2 Budgeted (or expected) profit

Regardless of the trend in a firm's profit figures, the profit earned may not be regarded as acceptable if it did not meet the expectations of management. Referring to firm A in the above example, the budgeted profit for 2015 may have been $50 000. The following situation would then exist:

Profits earned in:	*2011*	*2012*	*2013*	*2014*	*2015 Budget*	*2015 Actual*
	$	*$*	*$*	*$*	*$*	*$*
Firm A:	1 000	5 000	20 000	40 000	50 000	45 000

Although a favourable trend still exists when the profit is compared with the profit in previous years, management would not be as pleased, because the target of $50 000 profit was not achieved.

3 Industry averages

Statistics may be available to indicate whether or not the business performed as well as similar firms. In the case of public companies, many detailed statistics are available regarding profit performance. In the case of smaller businesses, a public accountant may be able to indicate whether or not the business is performing above or below the typical level for that type of firm.

4 Analytical ratios

There are several ratios that can be used to evaluate the **profitability** of a business. Profitability compares the profit earned with an investment made. Whereas profit is simply the excess of revenue over expenses, profitability measures the net profit earned against the resources available to earn the profit.

One ratio used to measure profitability in this way is the **return on assets**, which compares the net profit for a period with the total assets under the control of the business (net profit/total assets). This shows how effectively the assets have been used to earn a profit. A second profitability ratio is the **return on owner's investment**. This ratio compares the net profit with the equity of the owner (net profit/owner's equity). These and several other ratios will be examined in detail in the second half of this text.

11.5 Cost of goods sold and gross profit

The income statement is prepared to determine the net profit of a business over a period of time. This statement can also show the gross profit for a trading business. In figure 11.1, gross profit was shown as the result of deducting cost of sales from sales revenue. This figure shows the difference between the selling price of stock (sales) and the cost price of stock sold (cost of sales). This definition of gross profit may be expanded further to include other expenses incurred in the buying of goods for resale. The heading **cost of goods sold** is used to include any expenses incurred in the purchasing of stock and preparing it for sale. It therefore includes items such as cost of sales, **cartage inwards**, buying expenses, customs duty on imports and packaging costs. That is, all expenses that are involved with getting stock on display and ready for sale are included in cost of goods sold. Figure 11.3 shows some of these expenses.

ISBN 978 1 4202 3058 1

Figure 11.3 Cost of goods sold in an income statement

McKenna's Appliance Store: income statement for year ended 30 June 2015

	$	$
Revenue		
Cash sales	50 000	
Credit sales	20 000	70 000
less Cost of goods sold		
Cost of sales	35 000	
Cartage inward	2 000	
Buying expenses	3 000	40 000
Gross profit		30 000
less Stock loss[1]		2 000
Adjusted gross profit		28 000
plus Other revenue[2]		
Interest revenue		1 000
		29 000
less Other expenses		
Cartage outward[3]	1 000	
Advertising	5 000	
Office expenses	2 000	
Interest	2 000	10 000
Net profit		19 000

Notes to figure 11.3:

1 *Stock losses or gains* should be reported as an adjustment to the gross profit figure for the period. This is the preferred treatment so that comparisons of gross profit can be made without being affected by other influences such as stock losses. This produces an **adjusted gross profit**, which is simply gross profit less any stock losses (or plus any stock gains) that may have occurred.

2 If a trading business earns revenue in addition to its cash and credit sales, such items may be added to the adjusted gross profit, as shown in figure 11.3. An alternative treatment is to simply list all revenue items together in the revenue section of the report. However, some managers prefer to keep minor items such as interest and commission revenue separate, as they can make comparisons of gross profit results difficult to interpret if they are bundled up with the normal sales revenue. For this reason, interest revenue has been listed as a separate item.
Note: in VCE examinations *other revenue* should be reported as shown in figure 11.3 above.

3 *Cartage inward* has been listed under cost of goods, as it is incurred in bringing stock into the business. **Cartage outward**, on the other hand, is involved with delivering stock to customers once it has been sold. Therefore, it is listed with all the other expenses that are not involved with buying and preparing goods for sale. Items such as cartage inward and buying

ISBN 978 1 4202 3058 1

expenses are included as cost of goods sold because they are indirectly part of the cost of stock, as they must be paid in order to get stock ready for sale. Therefore, they are reported in the top section of the income statement and are taken into account when determining the gross profit for the period. Having determined this figure, the other expenses are deducted to calculate the final net profit figure.

11.6 Reporting discounts

All revenues and expenses should be reported in the income statement at the end of a reporting period. A business that both buys and sells on credit may have recorded discount expense and/or discount revenue during any given period. How should such discounts be reported in the income statement? Although there are several possibilities for the reporting of discounts, this text will only present the method preferred by the VCE examination panel. This method is based on the basic definitions of revenues and expenses. Discount revenue, as the name implies, is a revenue item because it occurs as a result of a reduction in the outflows payable to liabilities. However, discount revenue is not the major source of revenue for a trading business and therefore it should be reported under the heading of **other revenue**. Discount expense is listed with all other normal expense items, as discounts granted to credit customers represent a sacrifice of economic resources. This occurs because the business is sacrificing some of the money that is owed to it by its debtors. This treatment of the two discount items is demonstrated in the income statement in figure 11.4.

Figure 11.4 Reporting discounts in the income statement

		$	$
Revenue			
	Sales		88 000
less	Cost of goods sold		
	Cost of sales		42 000
Gross profit			46 000
plus	Other revenue		
	Discount revenue		1 000
			47 000
less	Other expenses		
	Wages	5 000	
	Discount expense	2 000	7 000
Net profit			40 000

The reporting of discounts in this manner ensures that the gross profit reported for the period is not distorted by any discounts granted by suppliers or allowed to customers. This is important when calculating analytical ratios in order to assess the performance of a business. Such analysis will be covered in detail later, in the second half of this text.

ISBN 978 1 4202 3058 1

› GLOSSARY OF TERMS

adjusted gross profit the result of adjusting gross profit for either a stock loss or a stock gain.

cartage inward an expense item incurred when inventory is delivered into a business (part of cost of goods sold).

cartage outward an expense item incurred when inventory is moved out from the business and delivered to a customer.

cost of goods sold a subheading used within an income statement that includes all expenses incurred in purchasing inventory and getting such items ready for sale.

gross profit the result of deducting cost of goods sold from the sales revenue for a period.

net profit the excess of revenues over expenses for a particular reporting period.

income statement an accounting report used to show a firm's revenues, expenses and net profit (or loss) for a reporting period.

profitability a comparison of the profit earned with an investment made, such as the total assets of the business.

return on assets a profitability ratio that compares net profit for a period with the total assets under the control of the business (calculated by net profit/total assets).

return on owner's investment a profitability ratio that compares net profit for a period with the equity of the owner (calculated by net profit/owner's equity).

Summary questions

1. Outline the basic function of an income statement.
2. Should a business owner have to prepare an income statement if a profit and loss summary account has already been completed? Explain your answer fully.
3. State and describe four different measures that can be used to evaluate the profit performance of a small business.
4. Outline the link that exists between the income statement and the balance sheet of a business.
5. Distinguish between the terms 'cost of sales' and 'cost of goods sold'.
6. State three different items that may appear in an income statement under the heading 'cost of goods sold'.
7. Where should discounts be reported in an income statement? Describe the correct method of reporting both discount expense and discount revenue.
8. Explain why revenue items such as interest revenue and discount revenue should not be added to sales revenue in an income statement.
9. A business owner has collected GST of $500 during the month. As the business has experienced an inflow of resources, the owner intends to report the $500 as revenue for the month. Is this correct accounting treatment? Explain your answer fully.
10. Explain why discount revenue is classified as a revenue item—refer to the definition of revenue in your answer.

ISBN 978 1 4202 3058 1

Practical exercises

[Exercise 11.1]

Anthony Stewart is the proprietor of Stewart's Stationery. On 1 March 2015 Stewart's capital account had a balance of $65 000. The following closing entries were extracted from the books of the business at the end of March 2015:

General journal

Date	Details	General ledger Debit	General ledger Credit	Subsidiary ledger Debit	Subsidiary ledger Credit
Mar 31	Cash sales	14 000			
	Credit sales	16 000			
	P&L summary		30 000		
	Closing entries				
	P&L summary	16 500			
	Cost of sales		13 400		
	Advertising		1 200		
	Postage		100		
	Office expenses		600		
	Assistant's wages		1 200		
	Closing entries				
	P&L summary	13 500			
	Capital		13 500		
	Transfer of net profit				

a Prepare an income statement for the month ended 31 March 2015.

b Prepare an extract from the balance sheet to show the owner's equity section, given that Stewart had drawings of $3 500 during March.

ISBN 978 1 4202 3058 1

[Exercise 11.2]

Wilson's Wine Store is owned and managed by Therese Wilson. She has just completed her closing entries for the year ended 30 June 2015. On 1 July 2014 Wilson's capital account had a credit balance of $87 600. The closing entries prepared by Wilson have been listed below.

General journal

Date	Details	General ledger Debit	General ledger Credit	Subsidiary ledger Debit	Subsidiary ledger Credit
Dec 31	Cash sales	125 000			
	Credit sales	35 000			
	Discount revenue	500			
	P&L summary		160 500		
	Closing entries				
	P&L summary	82 730			
	Part-time wages		5 700		
	Carry bags		620		
	Courier expenses		180		
	Stationery expenses		700		
	Insurance		3 400		
	Discount expense		130		
	Cost of sales		72 000		
	Closing entries				
	P&L summary	77 770			
	Capital		77 770		
	Transfer of net profit				
	Capital	9 820			
	Drawings		9 820		
	Transfer of owner's drawings				

a Prepare an income statement for the year ended 30 June 2015.

b Prepare the owner's equity section of the balance sheet as at 30 June 2015.

ISBN 978 1 4202 3058 1

[Exercise 11.3] The following trial balance is provided at the end of a quarterly reporting period:

Zappa's Confectionery: trial balance as at 31 March 2015

	$		$
Cash at bank	5 200	Loan—NAB	2 000
Rent	16 600	Sales revenue	66 800
Debtors control	5 500	Creditors	1 000
Stationery expense	100	Capital—Zappa	59 000
Telephone expenses	350	GST clearing	1 100
Cleaning	440		
Stock control	59 400		
Interest expense	480		
Drawings	3 400		
Cost of sales	36 400		
Discount expense	130		
Office furniture	1 900		
	129 900		129 900

a Prepare an income statement for the quarter ended 31 March 2015.

b Prepare a balance sheet as at 31 March 2015.

[Exercise 11.4] The following balances were extracted from the trial balance of Andrew's Auto Shop as at 30 June 2015:

Advertising	$1 600	Cash sales	$64 000	Creditors	$2 300
Wrappings	1 080	Cost of sales	28 500	Telephone	170
Debtors	430	Buying expenses	300	Interest expense	400
Equipment	14 000	Accounting fees	200	Stock control	32 000
Legal fees	270	Stationery expense	140	Bank overdraft	1 100
GST clearing	100				

a Select the relevant information from above and prepare an income statement for the quarter ended 30 June 2015.

b State three different ways of evaluating the net profit you determined in part **a**.

ISBN 978 1 4202 3058 1

[Exercise 11.5]

The proprietor of Michelle's Boutique has supplied the following information about her business for the year ended 30 April 2015:

Wages—assistant	$36 000	Shop fittings	$19 400	Debtors	$2 200
Cost of sales	45 300	Telephone expense	940	Cleaning	2 400
Loan (due 2016)	4 000	Interest on loan	440	Legal fees	600
Creditors	1 900	Discount expense	180	Electricity	2 280
Sales	98 150	Cash at bank	800	Advertising	800
Cartage inward	450	Office equipment	9 400	Debt agency fees	600

Using the relevant information from the list above, prepare an income statement for Michelle's Boutique for the year ended 30 April 2015. Your report should highlight figures for both gross and net profit, as well as the total expenses incurred by the business.

[Exercise 11.6]

Ben James is the proprietor of Chapel Street Formal Wear and he has provided the following trial balance at the end of the firm's reporting period:

Chapel Street Formal Wear: trial balance as at 31 July 2015

	$		$
Advertising	400	Capital—James	56 580
Carry bags	360	Cash sales	52 000
Cartage inward	180	Discount revenue	210
Cash at bank	880	GST clearing	3 000
Cleaning	1 200	Creditors control	6 200
Computer	3 200	Loan (due 31/7/16)	29 000
Cost of sales	49 200	Credit sales	53 000
Debtors control	11 500		
Electricity	500		
Fax machine	900		
Furniture	12 300		
Insurance	500		
Interest	230		
Discount expense	150		
Rent	12 400		
Stationery expense	430		
Stock control	55 200		
Telephone expenses	560		
Vehicle	36 500		
Vehicle expenses	1 600		
Wages—assistant	11 800		
	199 990		199 990

ISBN 978 1 4202 3058 1

Prepare an income statement for the year ended 31 July 2015 and a classified balance sheet at that date.

[Exercise 11.7] The following information relates to a chemist shop owned and operated by Shane Clarke:

Clarke's Pharmacy: adjusted trial balance as at 31 March 2015

	Debit $	*Credit* $
Premises	405 000	
Term deposit account (matures 2019)	4 000	
Mortgage loan		295 000
Newspaper advertisements	1 050	
Cleaning of shop	5 200	
Office equipment	4 200	
Interest on loan	7 200	
Accounting fees	900	
Creditors control		3 700
Cash at bank		3 850
Sales assistant's wages	22 000	
Drawings	2 340	
Cost of sales	47 320	
GST clearing		1 200
Buying expenses	1 830	
Shop fittings	9 300	
Telephone expense	810	
Pharmacy equipment	9 000	
Rates	1 200	
Stock control	74 600	
Cash sales		99 720
Electricity	660	
Stock loss	800	
Interest revenue		370
Capital—Clarke		193 570
	597 410	597 410

Prepare an income statement for the year ended 31 March 2015 and a balance sheet as at 31 March 2015.

ISBN 978 1 4202 3058 1

[Exercise 11.8]

Brenda Brown is the proprietor of B.B.'s Furniture and she has provided the following information in relation to her business:

B.B.'s Furniture: adjusted trial balance as at 31 May 2015

	Debit $	*Credit* $
Building maintenance	2 430	
Buying expenses	1 030	
Capital—Brown		270 000
Cartage inward	3 120	
Cash at bank		110
Cash sales		188 200
Cost of sales	87 400	
Creditors control		5 240
Credit sales		27 800
Debt collection expenses	980	
Debtors control	3 300	
Drawings—Brown	30 080	
Electricity	940	
Import duties	2 500	
Interest	13 200	
GST clearing		3 900
Lease of vehicle	6 800	
Mortgage on premises		342 000
Office equipment	4 500	
Office furniture	4 000	
Postage	310	
Premises	524 000	
Promotional expenses	4 790	
Salary—office staff	28 000	
Stock control	82 450	
Stock gain		450
Telephone & fax expenses	670	
Wages—sales staff	37 200	
	837 700	837 700

a Prepare an income statement for B.B.'s Furniture for the year ended 31 May 2015.

b Prepare a balance sheet for this business as at 31 May 2015.

ISBN 978 1 4202 3058 1

CASE STUDY

THE OWNER of Calder Car Parts is not sure how to prepare accounting reports. The following account balances were extracted from the trial balance of the business.

Calder Car Parts: account balances as at 31 March 2015

	$		$
Cost of sales	86 500	Cash at bank	3 200
Shop shelving	10 200	Advertising	8 600
Delivery vehicle	32 000	Debtors	4 300
Shop wages	32 000	Cash sales	93 200
Interest on loans	8 700	Creditors	5 040
Loan from NAB	82 000	Discount expense	1 240
Drawings	20 000	Credit sales	82 400
Premises	232 000	Vehicle expenses	4 400
Office expenses	10 200	Stock control	58 700
GST clearing	1 300 Cr		
Capital	?		

ADDITIONAL INFORMATION:

- Two of the firm's stock cards did not reconcile with a physical stocktake completed on 31 March 2015. One stock card revealed a stock gain of one set of car seat covers, which costs $30 and sells for $59. The other had a stock loss of 18 sets of wheel trims. These units sell for $49 each and were originally purchased for $35 each. All other stock cards were reconciled with the units identified in the stocktake.
- The loan from NAB is repayable at $145 per week.

a Prepare an income statement for the year ended 31 March 2015. Your statement should be prepared to highlight both gross and net profit results.

b Prepare a classified balance sheet as at 31 March 2015.

c What journals should be used by this business owner? Write a brief explanation of the purpose of each special journal.

d Explain how the value reported for vehicles in your balance sheet would have been determined. Refer to an accounting principle and a qualitative characteristic that are relevant to the value being reported.

e Explain your classification of the GST clearing account by stating two reasons to justify your classification.

Chapter 12

Cash flow statements: an introduction

OBJECTIVES

At the completion of this chapter, you should be able to:

- describe the role played by a cash flow statement
- outline the additional information revealed by a cash flow statement
- classify cash flows into the areas of operating, investing and financing activities
- describe the basic format of a cash flow statement
- prepare a cash flow statement
- analyse and interpret results as stated in a cash flow statement
- explain how the preparation of a cash flow statement can assist management decision-making.

ISBN 978 1 4202 3058 1

12.1 The role of the cash flow statement

At the end of a reporting period an income statement is prepared to determine a firm's profit or loss over a particular period of time. A balance sheet is also prepared to provide a snapshot of the business on balance day. Although many students of accounting view these two reports as the major accounting reports, it must be emphasised that they do not satisfy all demands for information about a business. Accounting standards also require the preparation of a report known as a **cash flow statement**. This report concentrates solely on cash flows and is a valuable tool for external parties when they need to evaluate a firm's operations. The demand for information relating to cash flows brought about the introduction of Accounting Standard AAS28 Cash Flow Statement in 1991. The use of such a report is comparatively recent and is a reflection of the importance placed on cash management in modern times.

The role of the cash flow statement is to complete the picture provided by general purpose accounting reports. As a package, the income statement, the balance sheet and the cash flow statement provide a summary of a firm's operating performance and financial standing. As the cash flow statement concentrates on movements of cash in and out of the business entity, it provides a clear insight into the firm that is not provided by either of the other two key accounting reports. Specifically, it provides information relating to areas such as:

- the net cash inflows generated by trading operations
- the firm's ability to meet obligations to creditors and bankers
- the firm's long-term capital and debt arrangements
- cash flows resulting from investing activities.

The management of a firm's cash resources is vital to its survival. A firm may earn a substantial profit, but this may be of little use if it does not ultimately result in cash inflows to the business. Expenses have to be paid, loans have to be repaid and the proprietor may have their own demands for personal drawings. The cash flow statement therefore must not simply be seen as a valuable report for external users. Although the cash flow statement is now an accepted report as defined by the accounting standards, management should regularly prepare such a report in order to gain all relevant information about the firm's activities. The income statement reports on revenues earned and expenses incurred. The balance sheet reports on its financial position at one point in time. However, information pertaining to cash flows is not provided by these two reports. The cash flow statement aims to supplement the information provided by the other two reports by specifically reporting on all cash movements.

12.2 Classification of cash flows

The accounting standards require the reporting of cash flows under three main classifications; namely, operating activities, investing activities and financing activities. Each of these three categories is now examined in detail.

Cash flows from operating activities refers to cash flows that result from the provision of goods and services in the day-to-day business operations of a firm. Operating activities relate to many of the receipts and payments that would normally appear in a firm's income statement. It would therefore include **payments to suppliers and employees** and others for goods and services, as well as **receipts from customers** and other entities that result from the business supplying goods or providing services. It must always be kept in mind that there will be some items in an income statement that do not relate directly to cash flows. For example, depreciation of non-current assets does not involve a movement of cash and therefore should not be included in a cash flow statement. Furthermore, an income statement prepared using the accrual method of accounting states revenues and expenses for a period. These items do not necessarily relate to cash flows. The existence of credit transactions, accrued expenses and prepaid expenses means that items listed as revenue earned or expenses incurred are quite different from the actual cash flows that occurred during the period. Therefore, when a cash flow statement is being prepared, the only relevant information in reference to operating activities is the actual cash inflows and outflows that resulted from such revenue and expense items. It should also be noted that cash flows from operating activities will also include both the collection and payment of the goods and services tax (GST). Thus the GST collected on cash sales is reported as an operating cash flow. Similarly, the GST paid on cash purchases and other cash payments is also reported under the heading of operating cash flows. If a business owner settles a GST liability owing from a previous month, or receives a GST refund from the taxation office, these items should also be reported in the operating activities section of the report.

Cash flows from investing activities refers to cash flows that result from the purchase or sale of non-current assets. Investing activities would include the purchase or sale of assets such as land and buildings, factory plant and equipment, and vehicles. It may also include long-term investments that do not qualify under the definition of cash or cash equivalents (see section 12.3: the concept of cash). Once again, the important point to keep in mind is that actual cash flows must be reported. When non-current assets are disposed of, book profits or losses are not relevant. However, the value realised in cash upon disposal represents a cash inflow and is therefore reported. When preparing a cash flow statement for a company, other long-term assets such as shares in other companies and debentures are also reported under the category of investing activities.

Cash flows from financing activities refers to cash flows that have occurred as a result of changes in a firm's financial structure. How a business is financed and the balance between the proprietor's funds and borrowed funds is a vital consideration when evaluating the financial stability of a business. A report on changes in financial structure will usually be of great interest to prospective owners and lenders of a business. Financing activities include capital contributions by the proprietor, withdrawals of cash by the owner, the taking out of loans from external parties and repayments of such loans.

The use of these three broad categories allows the users of the cash flow statement to focus on specific areas within a business. Operating activities examine the cash flows resulting from revenues and expenses, whereas the other two classifications study the changes in items reported in the balance sheet. Investing activities highlight changes in the area of non-current assets and financing activities look at how such assets were financed. Figure 12.1 summarises the types of cash flows that may be reported under each of the three classifications.

ISBN 978 1 4202 3058 1

Figure 12.1 Examples of cash flows by classification

Operating activities	Investing activities	Financing activities
Cash inflows from: • selling goods for cash • collections from debtors • commission received • interest received • GST received • GST refunds	Cash inflows from: • proceeds from the sale of non-current assets	Cash inflows from: • capital injections of cash • taking out loans
Cash outflows from: • cash purchases of stock • payments to creditors • expenses paid • GST paid • GST settlements	Cash outflows from: • purchase of non-current assets for cash	Cash outflows from: • proprietor's cash drawings • loan repayments

12.3 The concept of cash

Before going into the details of how to prepare a cash flow statement, it is important to define the meaning of cash as it is used in relation to such a report. **Cash** includes all cash on hand and any other **cash equivalents** held by a firm. The definition of cash means cash on hand, cash at bank and cash held with non-banking financial institutions on an at-call basis. Cash equivalents extends this definition to include items such as short-term cash deposits, bills receivable created by promissory notes and other short-term investments such as bank bills and treasury bills. Such short-term items can include investments with a maturity date ranging from at-call up to two or three months into the future. Therefore cash equivalents relate to liquid short-term assets.

As the cash flow statement examines changes in a firm's cash position, short-term borrowings such as bank overdrafts are also taken into account. A business may have a fluctuating bank balance that drops into an overdraft position several times during a given reporting period. The use of such short-term arrangements should be reflected in any review of a firm's cash position. If a business has an overdraft reported on balance day, this too should be included under the definition of cash and cash equivalents. The only difference is that an overdraft would be treated as a negative item when the total of cash held is being determined.

12.4 The format of the cash flow statement

The accounting standards set out the basic format to be followed when preparing a cash flow statement. In order to demonstrate the format of the report, the example in figure 12.2 on page 250 has been created.

The format of this statement is based on the use of the three classifications of cash flows: operating activities, investing activities and financing activities. Note how a subtotal has been determined for each of these areas. These subtotals are used to highlight the net cash inflow or outflow that occurred within each activity during the reporting period. The overall result of such cash flows is then shown in terms of an increase or decrease in cash held over the period. This can be reconciled with the two cash balances as reported in the firm's consecutive balance sheets.

ISBN 978 1 4202 3058 1

Figure 12.2 Cash flow statement: basic format

Kinnear's Sports Store: cash flow statement for year ended 31 December 2015

	$	$
Cash flows from operating activities		
Receipts from customers	100 000	
GST collected	10 000	
Payments to suppliers and employees	(73 000)	
GST paid	(5 300)	
Net cash provided by operating activities		31 700
Cash flows from investing activities		
Proceeds from sale of shop fittings	1 000	
Payments for shop fittings	(5 000)	
Net cash used in investing activities		(4 000)
Cash flows from financing activities		
Loan from bank	10 000	
Loan repayments	(5 000)	
C. Kinnear—cash drawings	(29 500)	
Net cash used in financing activities		(24 500)
Net increase (decrease) in cash held		3 200
Cash held at the beginning of the year		2 000
Cash held at the end of the year		5 200

The information contained in a cash flow statement may also be supported by a schedule of cash flows from operating activities. The purpose of such a schedule is to show details of the summarised information contained in the actual cash flow statement. Consider the report shown for Kinnear's Sport Store in figure 12.2, and the schedule prepared below:

Schedule of cash flows from operating activities

	$	$
Collections from customers:		
Cash sales	100 000	
GST collected	10 000	110 000
Payments to suppliers and employees:		
Cash purchases of stock	(40 000)	
Assistant's wages	(25 000)	
Advertising	(2 000)	
Stationery	(500)	
Cleaning of shop	(2 500)	
Delivery expenses	(1 000)	
Insurance	(2 000)	
GST paid	(5 300)	(78 300)

ISBN 978 1 4202 3058 1

Given that the cash flows from operating activities include all the revenues and expenses involving cash that a business has on a day-to-day basis, there is not much detail in relation to this area in the formal report. The schedule provides the owner or manager with all the details in relation to the cash flows from operating activities. In fact, some users of the cash flow statement prefer such detail to be in the body of the actual report. The counter argument is that the report may become cluttered with unnecessary detail. As with all accounting reports, they must be prepared in order to satisfy the demands of the individual user. Therefore, you should make yourself familiar with both styles of presentation. The alternative model, with all details in the body of the report, has been prepared in figure 12.3.

Figure 12.3 Cash flow statement: alternative format

Kinnear's Sports Store: cash flow statement for year ended 31 December 2015

	$	$
Cash flows from operating activities		
Collections from customers: cash sales	100 000	
GST collected	10 000	110 000
Payments to suppliers and employees:		
Cash purchases of stock	(40 000)	
Assistant's wages	(25 000)	
Advertising	(2 000)	
Stationery	(500)	
Cleaning of shop	(2 500)	
Delivery expenses	(1 000)	
Insurance	(2 000)	
GST paid	(5 300)	(78 300)
Net cash provided by operating activities		31 700
Cash flows from investing activities		
Proceeds from sale of shop fittings	1 000	
Payments for shop fittings	(5 000)	
Net cash used in investing activities		(4 000)
Cash flows from financing activities		
Loan from bank	10 000	
Loan repayments	(5 000)	
C. Kinnear—cash drawings	(29 500)	
Net cash used in financing activities		(24 500)
Net increase (decrease) in cash held		3 200
Cash held at the beginning of the year		2 000
Cash held at the end of the year		5 200

ISBN 978 1 4202 3058 1

12.5 Preparing a cash flow statement

A cash flow statement can be prepared from either the two cash journals or a statement of receipts and payments. Both the journals and the statement of receipts and payments provide a summary of all cash flow transactions for a period. Therefore, it is simply a matter of classifying these cash flows under the headings of operating, investing and financing. Consider the statement of receipts and payments shown below:

Cowell's Clothing Store: statement of receipts and payments for the year ended 30 June 2015

	$	$
Cash receipts		
Capital contribution	20 000	
Cash sales	50 000	
Collections from debtors	10 000	
Sale of office equipment	2 000	
GST collected	5 000	87 000
less Cash payments		
Payments to creditors	30 000	
Advertising	3 000	
Wages	14 000	
Cleaning	3 000	
Drawings	10 000	
Purchase of computer	4 000	
Loan repayments	11 000	
GST paid	4 000	79 000
Excess of receipts over payments		8 000
Bank balance as at 1 July 2014		3 000
Bank balance as at 30 June 2015		11 000

ISBN 978 1 4202 3058 1

Using the information in the above report, a formal cash flow statement can be prepared as follows:

Cowell's Clothing Store: cash flow statement for the year ended 30 June 2015

	$	$	$
Cash flows from operating activities			
Collections from customers			
Cash sales	50 000		
Collections from debtors	10 000		
GST collected	5 000	65 000	
Payments to suppliers and employees:			
Payments to creditors	(30 000)		
Advertising	(3 000)		
Wages	(14 000)		
Cleaning	(3 000)		
GST paid	(4 000)	(54 000)	
Net cash provided by operating activities			11 000
Cash flows from investing activities			
Proceeds from sale of office equipment		2 000	
Purchase of computer		(4 000)	
Net cash used in investing activities			(2 000)
Cash flows from financing activities			
Capital contribution		20 000	
Drawings		(10 000)	
Loan repayments		(11 000)	
Net cash used in financing activities			(1 000)
Net increase (decrease) in cash held			8 000
Cash held at the beginning of the year			3 000
Cash held at the end of the year			11 000

A comparison of the two accounting reports shown above highlights the fact that a cash flow statement is simply a statement of receipts and payments where all the cash flows have been classified into the three distinct areas of operating, investing and financing. The cash flow statement has the advantage of providing additional information about a business. For example, management can determine the extent of cash, if any, being generated by operating activities. An owner can see how much cash has been used up in financing the business, or how much cash has been invested into the assets of the firm. Therefore the cash flow statement is a valuable addition to the income statement and balance sheet, as it provides information not previously highlighted in the other general purpose financial reports.

ISBN 978 1 4202 3058 1

12.6 Cash flows and decision-making

There is little point in preparing a cash flow statement if it cannot be analysed fully and its results taken into account when making decisions about the future of a business. As with other accounting reports, a cash flow statement can be compared with previous results. Such comparisons allow changes in the various activities to be detected and trends identified. For example, a significant change in the cash provided by operating activities should be investigated fully, as it is of vital importance in most businesses. Changes in financial structure can be highlighted over consecutive reporting periods. Similarly, if a business is expanding over several years, the additional investment in non-current assets will be reflected in the cash flow statements prepared each period. In general, the cash flow statement provides management with information that demonstrates the effects of its decision-making on the cash resources of the firm. For this reason, cash flows statements for consecutive reporting periods are often prepared within the one report. This allows for easy comparison and highlights changes that have occurred within the firm over time. An example of such an approach has been prepared below.

Trendy Fashions: cash flow statement for year ended 31 December

		2014		*2015*
	$	*$*	*$*	*$*
Cash flows from operating activities				
Receipts from customers	200 000		240 000	
GST collected	20 000		24 000	
Payments to suppliers and employees	(140 000)		(163 000)	
GST paid	(10 000)		(11 000)	
Net cash provided by operating activities		70 000		90 000
Cash flows from investing activities				
Proceeds from sale of non-current assets	6 000		–	
Purchase of non-current assets	(20 000)		(10 000)	
Net cash used in investing activities		(14 000)		(10 000)
Cash flows from financing activities				
Loan repayments	(22 000)		(18 000)	
Proprietor's drawings	(30 000)		(40 000)	
Net cash used in financing activities		(52 000)		(58 000)
Net increase (decrease) in cash held		4 000		22 000
Cash held at the beginning of the year		1 000		5 000
Cash held at the end of the year		5 000		27 000

These cash flow statements provide a quick comparison of the changes that have occurred in this business from 2014 to 2015. The reports can be used to explain how the business increased its cash held from $1 000 to $27 000, a very pleasing result over a two-year time span! The statements provide details as to why the firm had a very small increase in cash held in one period, yet in the second year managed to create a net increase of $22 000 in the cash held by the business. For example, the operating activities of the firm have provided an additional $20 000 of cash inflows. This is a favourable result and the causes of such improvement should be investigated and noted for the future. It is also obvious that management has continued the

ISBN 978 1 4202 3058 1

expansion in its non-current assets. Having committed $20 000 to non-current assets during 2014, it allocated a further $10 000 cash for investing activities during 2015. In the area of financing, the owner has increased the cash outflows for personal drawings, but has reduced the outflows for loan repayments. Key changes such as these provide management with a range of information not provided by its income statements or balance sheets. The cash flow statement gives an additional insight into the workings of the firm and should be an integral part of an overall cash management strategy.

› GLOSSARY OF TERMS

cash includes all cash on hand plus cash equivalents

cash equivalents short-term liquid assets that can be converted into cash quickly.

cash flow statement an accounting report used to show all inflows and outflows of cash during a reporting period, and the cash balance at the end of that period.

cash flows from financing activities cash flows that occur as a result of changes in the financial structure of a business.

cash flows from investing activities cash flows that relate to the sale or purchase of non-current assets.

cash flows from operating activities cash flows that result from the provision of goods and services in the day-to-day operations of a business.

payments to suppliers and employees a term used in the cash flow statement that summarises the cash outflows in the area of operating activities.

receipts from customers a term used in the cash flow statement that summarises the cash inflows in the area of operating activities.

Summary questions

1. Outline the general purpose of a cash flow statement.
2. A cash flow statement is said to provide information additional to that provided by other accounting reports. State and explain three questions to which management can find answers in a cash flow statement.
3. State and describe the three classifications used within a cash flow statement.
4. Using the headings stated in your answer to question 3, classify each of the following items into the three types of cash flows, or as a non-cash item where appropriate:
   - **a** cash purchase of furniture
   - **b** wages paid
   - **c** depreciation of office furniture
   - **d** cash sale of goods
   - **e** loan repayments
   - **f** GST collected on cash sales
   - **g** loss on sale of vehicle
   - **h** proceeds from sale of vehicle
   - **i** withdrawals of cash
   - **j** cash purchase of inventory
   - **k** rent expense paid
   - **l** GST paid on purchases
   - **m** withdrawals of inventory.
5. Explain what ‘cash’ means as it is used in relation to a cash flow statement.

ISBN 978 1 4202 3058 1

6 Are all revenue items in an income statement reported in a cash flow statement? Explain your answer fully, using an appropriate example.

7 Are all expense items in an income statement reported in a cash flow statement? Explain your answer fully, using an appropriate example.

8 A cash flow statement may report four different types of cash flows in relation to the GST. Describe the nature of these four different cash flows.

9 Describe the basic format of a cash flow statement, highlighting the key areas within the report.

10 Explain why cash flow statements are often prepared for consecutive reporting periods within the one report.

11 Outline the link between preparing a cash flow statement and management decision-making.

12 A business owner bought a new computer for cash for $3630, including GST. Show how this transaction would be reported in a cash flow statement by completing the following table.

Item	Operating / investing / financing	Inflow or outflow	$

13 A trading business sold stock for cash for $5000, plus GST. The goods sold had a cost price of $3500. On the same day the owner withdrew $1000 in cash and stock that had a cost price of $600. Complete the following table to show how these events would be reported in a cash flow statement.

Item	Operating / investing / financing	Inflow or outflow	$

ISBN 978 1 4202 3058 1

Practical exercises

[Exercise 12.1]

The owner of Brimbank Bats has provided the following information about his sporting goods business:

Receipts	*$*	*Payments*	*$*
Cash sales	60 000	Cash purchases of stock	32 000
Collections—debtors	20 000	Wages	19 000
Loan Easy Bank	30 000	Advertising	5 000
GST collected	6 000	Drawings	16 000
		GST paid	3 700

a Using the relevant information from above, calculate the net cash provided by operating activities for the year ended 28 February 2015.

b Explain your treatment of drawings in your answer to part **a**.

[Exercise 12.2]

Alan Bennetts extracted the following information from the books of his business, which trades under the name of Bennetts' Jeans.

	$
Cash sales	60 000
Cash paid to creditors	25 000
Cost of sales	27 000
Wages	12 000
Advertising	3 000
Cash drawings	5 000
GST received from customers	6 000
GST paid to suppliers	2 800

a Using the relevant information from that listed above, calculate the net cash provided by operating activities for the year ended 31 March 2015.

b Explain your treatment of 'cost of sales' in your answer to part **a**.

c Explain why management should determine the net cash generated by operating activities in addition to calculating the net profit for a period.

ISBN 978 1 4202 3058 1

[Exercise 12.3]

The owner of McNamara's Music has provided the following information about her business for the year ended 31 May 2015.

Receipts	*$*	*Payments*	*$*
Cash sales	62 000	Cash purchases of stock	29 800
Sale of van	5 000	Purchase of computer	3 800
Sale of furniture	2 000	Purchase of fittings	4 900
GST collected	6 200	Drawings	9 700
		GST paid	3 870

a Using the relevant information from above, calculate the net cash provided (or used) by investing activities for the year ended 31 May 2015.

b Justify your treatment of the purchases of stock in your answer to part **a**.

[Exercise 12.4]

The following transactions occurred in the business of Simson's Book Store during the year ended 31 March 2015:

	$
Cash collected from debtors	32 400
Purchase of office equipment for cash	6 700
Profit on sale of computer	200
Cash purchase of fittings	5 400
Loss on sale of office furniture	300
Proceeds from sale of non-current assets	2 000
GST paid during the period	1 550
Purchase of furniture for cash	3 400
Cash drawings by the owner	5 600

Extract the relevant information from that listed above and determine the net cash flow provided (or used) by investing activities.

[Exercise 12.5]

The owner of Hazim's Lighting has asked you to determine the net cash flows from financing activities for her business during the year ended 30 June 2015. She has provided you with the following data:

	$
Profit earned for the year	40 000
Drawings made during the year	10 000
Cash sales for the year	36 700
Loan repayments made during the year	12 000
Credit sales for the year	34 300

ISBN 978 1 4202 3058 1

Additional capital contributed by the owner totalled $20 000, made up of cash and a computer. The computer was valued at $5 000.

[Exercise 12.6] The following cash flows relate to the business of Ken's Kitchens:

Receipts	*$*	*Payments*	*$*
Cash sales	87 000	Creditors	43 500
Capital	15 000	Wages	23 200
Loan from NAB	12 000	Loan repayments	5 200
GST received	8 700	Drawings	12 200
		Purchase of vehicle	30 000
		GST paid	7 350

a Prepare a schedule to determine the net cash provided (or used) by financing activities.

b Make a brief comment on the financing activities of Ken's Kitchens in light of your answer to part **a**.

[Exercise 12.7] The following cash journals come from the books of DiVito's Drapery:

Cash receipts journal

Date	Details	Rec. No.	Bank	Debtors	Cash sales		Sundries	GST
					CP	SP		
			$	$	$	$	$	$
Mar 1	Cash sales	611	308		140	280		28
3	Capital	–	8 000				8 000	
6	Cash sales	612	473		215	430		43
	Cash sales	613	990		450	900		90
9	Cash sales	614	583		260	530		53
10	Debtor—Pham	615	330	330				
13	Cash sales	616	506		230	460		46
15	Cash sales	617	418		190	380		38
	Debtor—Couceiro	618	550	550				
18	Cash sales	619	880		480	800		80
22	Debtor—Crown	620	4 400	4 400				
24	Cash sales	621	550		250	500		50
28	Loan—NAB	–	9 000				9 000	
30	Cash sales	622	825		370	750		75
31	Disposal of computer	623	1 600				1 600	
			29 413	5 280	2 585	5 030	18 600	503

ISBN 978 1 4202 3058 1

Cash payments journal

Date	Details	Chq. no.	Bank $	Creditors $	Stock $	Sundries $	GST $
Mar 1	Advertising	61234	440			400	40
3	Stock control	61235	990		900		90
7	Wages	61236	500			500	
8	Drawings	61237	200			200	
10	Insurance	61238	407			370	37
12	Stock control	61239	660		600		60
14	Wages	61240	500			500	
15	Drawings	61241	400			400	
18	Stoplight Fabrics	61242	2 300	2 300			
20	Stock control	61243	770		700		70
21	Wages	61244	500			500	
22	Drawings	61245	350			350	
23	Equipment	61246	4 950			4 500	450
28	Wages	61247	500			500	
29	Drawings	61248	400			400	
31	Loan repayment	61249	200			200	
			14 067	2 300	2 200	8 320	747

ADDITIONAL INFORMATION:

» The cash at bank account balance as at 1 March 2015 was $2510.

a Prepare a schedule to determine the net cash provided (or used) by the operating activities of DiVito's Drapery.

b Prepare a formal cash flow statement for DiVito's Drapery for the month ended 31 March 2015. Show a summarised version of the cash flows from operating activities as determined by your schedule in part **a**.

c The cash flow statement is said to provide information not revealed by other accounting reports. What additional information is available to the owner of DiVito's Drapery? Refer to details from part **a** in your answer.

ISBN 978 1 4202 3058 1

[Exercise 12.8] The proprietor of Neale's Disposal Store has provided the following cash journals. On 1 June 2015 the firm had an overdraft of $1 340.

Cash payments journal

Date	Details	Bank $	Disc. exp. $	Debtors $	Cost price $	Cash sales $	Sundries $	GST $
Jun 1	Cash sales	176			70	160		16
3	Cash sales	308			130	280		28
4	Loan—EZ Finance	16 000					16 000	
5	Cash sales	462			210	420		42
6	Cash sales	429			190	390		39
8	Cash sales	308			130	280		28
9	Commission	165					150	15
10	Cash sales	473			210	430		43
11	Capital	5 000					5 000	
12	Cash sales	396			170	360		36
13	T. Barker	350	10	360				
15	Cash sales	594			260	540		54
17	Cash sales	979			430	890		89
20	Cash sales	594			260	540		54
21	Cash sales	374			160	340		34
22	Sale of van	5 600					5 600	
24	Cash sales	143			60	130		13
25	Commission	176					160	16
26	R. Smith	500	20	520				
27	Cash sales	176			70	160		16
30	Cash sales	495			210	450		45
		33 698	30	880	2 560	5 370	26 910	568

ISBN 978 1 4202 3058 1

Cash Payments Journal

Date	Details	Bank $	Creditors $	Stock cont. $	Wages $	Sundries $	GST $
Jun 1	Shop fittings	6 160				5 600	560
3	Stock control	616		560			56
4	Wages	650			650		
5	S. Earle	1 100	1 100				
7	Drawings	450				450	
10	Stock control	880		800			80
11	Wages	650			650		
14	Drawings	450				450	
15	Loan repayment	380				380	
18	Wages	620			620		
19	Stock control	539		490			49
21	Drawings	450				450	
23	Computer	2 376				2 160	216
24	Advertising	990				900	90
25	Wages	620			620		
26	D. McCoury	550	550				
28	Drawings	400				400	
29	Cleaning	132				120	12
30	Loan repayment	380				380	
		18 393	1 650	1 850	2 540	11 290	1 063

a Prepare a formal cash flow statement for the month of June 2015. (The items relating to operating activities should be individually listed in your report.)

b Comment on:

i the firm's overall cash position

ii the level of cash generated by operating activities.

ISBN 978 1 4202 3058 1

[Exercise 12.9]

The following report has been submitted by Ruth Dogovski, the owner of Canoes & Kayaks:

Statement of receipts and payments for year ended 31 March 2015

	$	$
Cash receipts		
Cash sales	90 000	
Collections from debtors	32 000	
Sale of delivery truck	5 500	
Capital	5 000	
Commission revenue	1 000	
Loan from K.S. Finance	13 000	
GST collected	9 100	155 600
less Cash payments		
Cash purchases of stock	54 040	
Interest	1 660	
Advertising	6 450	
Cartage inward	1 150	
Purchase of office equipment	12 300	
Wages—sales staff	32 060	
Loan repayments	4 700	
Drawings	17 900	
Purchase of delivery truck	23 000	
GST paid	9 694	162 954
Excess (deficit) of receipts over payments		(7 354)
Bank balance as at 1 April 2014		9 245
Bank balance as at 31 March 2015		$1 891

a Prepare a schedule to determine the net cash provided (or used) by operating activities.

b Prepare a cash flow statement for Canoes & Kayaks for the year ended 31 March 2015.

c The owner is concerned about the cash flows of her business. Comment on the results revealed by your cash flow statement.

ISBN 978 1 4202 3058 1

[Exercise 12.10] Peter Manser, the proprietor of Specialist Computers, has provided the following information in relation to his business:

Statement of receipts and payments for year ended 30 June 2015

	$	$
Cash receipts		
Additional capital	12 000	
Proceeds from sale of office furniture	3 500	
Interest on government bonds	3 200	
Sales	65 200	
Debtors	53 950	
NAB finance loan	22 600	
GST received	6 520	166 970
less Cash payments		
Proprietor's drawings	23 400	
Cartage outward	1 150	
Creditors	62 330	
Interest expense	2 360	
Office salaries	15 600	
Cash purchases of stock	8 500	
Repayments to NAB	4 650	
Advertising	2 100	
Shop wages	18 200	
Insurance	1 350	
Purchase of shop fittings	12 600	
GST paid	2 570	154 810
Excess (deficit) of receipts over payments		12 160
Bank balance as at 1 July 2014		4 860
Bank balance as at 30 June 2015		17 020

ADDITIONAL INFORMATION:

» Stock loss for the year was $2100.

a Prepare a cash flow statement for Specialist Computers for the year ended 30 June 2015. (Cash flows relating to operating activities should be itemised within your report.)

b Comment briefly on what is shown by your cash flow statement.

ISBN 978 1 4202 3058 1

[Exercise 12.11] The owner of Lam's Lighting prepared the following cash flow statements:

Lam's Lighting: cash flow statements for years ended 31 December:

		2014		*2015*
	$	*$*	*$*	*$*
Cash flows from operating activities				
Receipts from customers	140 000		154 000	
Payments to suppliers and employees	(100 000)		(125 000)	
Net cash provided by operating activities		40 000		29 000
Cash flows from investing activities				
Proceeds from sale of non-current assets	8 000		–	
Purchase of non-current assets	(15 000)		(8 000)	
Net cash used in investing activities		(7 000)		(8 000)
Cash flows from financing activities				
Repayments of loan	(10 000)		(10 000)	
Proprietor withdrawals	(22 000)		(22 000)	
Net cash used in financing activities		(32 000)		(32 000)
Net increase (decrease) in cash held		1 000		(11 000)
Cash held at the beginning of the year		7 000		8 000
Cash held at the end of the year		8 000		(3 000)

Comment on the changes that have occurred in the business of Lam's Lighting as revealed in the above cash flow statements. Your comments should consider the changes in the cash flows from operating, investing and financing activities.

ISBN 978 1 4202 3058 1

[Exercise 12.12] The following cash flow statements relate to the business of Oswald's Office Furniture:

Oswald's Office Furniture: cash flow statements for years ended 31 December:

	2014		2015	
	$	$	$	$
Cash flows from operating activities				
Receipts from customers	90 000		103 500	
Payments to suppliers and employees	(55 000)		(60 500)	
Net cash provided by operating activities		35 000		43 000
Cash flows from investing activities				
Proceeds from sale of non-current assets	7 500		5 000	
Purchase of non-current assets	(20 000)		(6 400)	
Net cash used in investing activities		(12 500)		(1 400)
Cash flows from financing activities				
Additional capital	10 000		–	
Repayments of loan	(5 000)		(15 000)	
Proprietor withdrawals	(15 000)		(12 600)	
Net cash used in financing activities		(10 000)		(27 600)
Net increase (decrease) in cash held		12 500		14 000
Cash held at the beginning of the year		(13 200)		(700)
Cash held at the end of the year		(700)		13 300

a Compare the two sets of figures in the above cash flow statements and comment on each of the following areas within the business:
  i cash flows from operating activities
  ii cash flows from investing activities
  iii cash flows from financing activities.

b Explain how a cash flow statement can assist management in decision-making.

CASE STUDY

BRAD SHIELS, the owner of Brad's Bookshop, has provided the following information for your consideration:

Balance sheet as at 30 April 2015

Assets	$	*Liabilities*	$
Cash at bank	3 240	Creditor—Bestsellers P/L	540
Stock control	45 400		
Display fittings	15 260	*Owner's equity*	
GST clearing	100	Capital	63 460
	64 000		64 000

ISBN 978 1 4202 3058 1

Journals for the month of May 2015:

Purchases journal

Date	Creditor	Inv. no.	Stock $	GST $	Creditors control $
May 5	Billy Bookworm	142646	860	86	946
18	Billy Bookworm	142663	980	98	1 078
30	Totals for month		1 840	184	2 024

Sales journal

Date	Debtor	Inv. no.	CP $	SP $	GST $	Debtors control $
May 12	Malvern P.S.	31221	350	780	78	858
22	Warragul University	31222	450	980	98	1 078
24	Malvern P.S.	31223	250	530	53	583
30	Credit sales for month		1 050	2 290	229	2 519

Cash receipts journal

Date	Details	Bank $	Disc. exp. $	Debtors $	Sales CP $	Sales SP $	Sundries $	GST $
May 3	Cash sales	99			45	90		9
10	Capital	8 000					8 000	
16	Cash sales	209			110	190		19
22	Malvern P.S.	765	15	780				
23	Bank loan	5 000					5 000	
26	Cash sales	198			90	180		18
28	Warragul Uni.	960	20	980				
31	Totals	15 231	35	1 760	245	460	13 000	46

ISBN 978 1 4202 3058 1

Cash payments journal

Date	Details	Bank $	Disc. rev. $	Creditors control $	Stock $	Sundries $	GST $
May 2	Stock control	550			500		50
5	Bestsellers P/L	200		200			
8	Drawings	600				600	
13	Wages	910				910	
14	Billy Bookworm	920	26	946			
19	Stock control	440			400		40
22	Computer system	8 800				8 000	800
27	Wages	930				930	
30	Loan repayment	100				100	
31	Drawings	550				550	
31	Totals	14 000	26	1 146	900	11 090	890

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
May 31	Stock loss Stock control Adjusting entry for stock loss as shown by physical stocktake (Memo 22)	190	190		

a Prepare general ledger accounts for the month of May 2015. (Use a debtors control account for all debtors and a control account for all creditors.)

b Foot all accounts and prepare a trial balance as at 31 May 2015.

c Prepare the following general purpose accounting reports:

i income statement for May 2015
ii cash flow statement for May 2015
iii balance sheet as at 31 May 2015.

ISBN 978 1 4202 3058 1

Chapter 13

Depreciation of non-current assets

OBJECTIVES

At the completion of this chapter, you should be able to:

- define 'depreciation'
- explain how depreciation complies with the reporting period principle and accrual accounting
- explain the meaning of the term 'cost' as it is applied to non-current assets
- prepare a general journal entry to record the balance day adjustment for depreciation
- prepare a general journal entry to close depreciation expense accounts to the profit and loss summary account
- calculate depreciation expense under the straight-line method
- explain the function of depreciation accounts and accumulated depreciation accounts
- describe the effect depreciation has on an income statement and a balance sheet.

ISBN 978 1 4202 3058 1

13.1 The meaning of depreciation

Depreciation is the allocation of the cost of a non-current asset over its effective working life. Non-current assets are those assets expected to be under the control of an entity for a period greater than 12 months for the purpose of earning revenue for the business. Depreciation spreads the cost of an asset over the period of time the asset is used to generate revenue. An asset's effectiveness gradually diminishes and at the end of its useful working life it may be scrapped, sold or traded in on a newer model. Because an asset suffers from wear and tear, is second-hand and may be obsolete, it is unlikely to return its original purchase price to the owner. The purpose of depreciation is to allocate as an expense the difference between the original cost of the asset and the amount for which the asset is likely to be scrapped. This process may take several years, since only a portion of the cost is allocated as each year of the asset's life passes by. The reporting period principle calls for the life of a business to be divided into periods of time so that profit can be measured. Under accrual accounting, revenue earned for a period is matched against the expenses incurred in that same time period so that an accurate profit can be determined. Non-current assets are used to generate revenue, but they are also responsible for creating some expenses for a business. These expenses may include repairs, registration, insurance and depreciation of the asset itself. In order to determine an accurate profit figure for any given period, all relevant expenses should be included. As a non-current asset has a limited life, it is reasonable to write off a part of its cost in each reporting period that it has been used to earn revenue for the business. Therefore, **depreciation expense** is created to account for a portion of the cost of an asset in each reporting period. In this way, the revenue earned by an asset is considered in the same period as depreciation expense is recognised. This ensures that the profit recognised under accrual accounting may be reasonably accurate.

13.2 The meaning of cost

When we attempt to measure the cost of a non-current asset, there are two elements to be identified. These are:

1 the historical (original) cost of the asset
2 all other costs incurred to get the asset into a revenue-earning capacity.

The historical cost principle demands that an asset be recorded at its original value. Such a cost can usually be verified by documentary evidence such as an invoice, a cheque butt or a written contract [SAC2: **reliability**]. However, the other costs relating to the purchase of an asset are not always as easily identified. Sometimes a business has to pay for one-off expenses, such as the delivery or the installation of an asset. Such costs are necessary before the asset is ready to earn revenue. In such a situation, the cost of the delivery and installation become part of the actual asset and the total amount is considered for depreciation. The following examples have been supplied to clarify this situation.

Example 1: Purchased a new vehicle for $20 000 cash and paid the following:

Government stamp duty:	$1 000
Dealer's charges:	$500
Insurance and registration:	$800 per year

ISBN 978 1 4202 3058 1

In this case, the cost of the vehicle would consist of the purchase price of $20 000 plus the stamp duty of $1 000 and the dealer's charge of $500: a total of $21 500. All of these items become part of the cost of the vehicle because they must be paid in order to get the car in a position to earn revenue. Once these items have been paid they do not occur again—proof that they are related to the purchase price of the asset. However, this is not the case with the insurance and registration. This is not included in the cost of the vehicle, as it will be paid each reporting period. Insurance is not paid to get the asset into a revenue-earning capacity. It is payable each and every year (if the owner so desires) and is therefore seen as a separate expense item.

Example 2: Purchased a new computer for $10 000 and paid for the following:

Installation:	$2 000
Service contract:	$200 per year

In this example the cost of the computer is $12 000. Installation must be paid in order to get the asset into a revenue-earning capacity and therefore becomes part of the cost of the asset. The service contract is payable each year and it is the choice of management as to whether or not it should be continued. It does not have to be paid before the asset is usable, and must be renewed each reporting period.

13.3 Straight-line method of depreciation

There are several different ways of calculating the amount of depreciation to be allocated in a particular reporting period. The VCE Unit 3 Accounting course only requires you to have a working knowledge of one of these methods, which is known as straight-line depreciation. A second method of depreciation will be introduced as part of the Unit 4 Accounting course.

The **straight-line** method of depreciation allocates the same amount of an asset's cost each reporting period. It is also called the **fixed instalment method** because the amount of depreciation is fixed, regardless of whether the asset is in its first year of use or its final year. This method is the simplest one to calculate; the example below will be used to illustrate the journal entries required on balance day to record depreciation.

Consider the following details, which relate to a vehicle bought by Sindoni's Supermarket on 1 July 2015:

Purchase price of van:	$32 000
Estimated useful life:	4 years
Estimated residual (scrap) value:	$12 800

The formula to calculate depreciation under the straight-line method is:

$$\text{Depreciation expense} = \frac{\text{Cost} - \text{Scrap}}{\text{Useful life}}$$

Using the details of the vehicle purchased by Sindoni's, the equation becomes:

$$\text{Depreciation expense} = \frac{\$32\,000 - \$12\,800}{4 \text{ years}}$$

$$= \$4\,800 \text{ per year}$$

ISBN 978 1 4202 3058 1

This calculation indicates that \$4800 of the cost of the vehicle will be written off as depreciation in each of the four years the car is used in the business. Over the four years a total of \$19 200 will be written off, leaving only the expected scrap value of \$12 800 (that is, \$32 000 – \$19 200 = \$12 800). The depreciation expense can also be expressed as a percentage rate per annum. In this case the depreciation rate is calculated as follows:

$$\text{Depreciation rate per annum} = \frac{\$4800}{\$32\,000}$$

$$= 0.15 \text{ or } 15\%$$

This percentage rate indicates that 15% of the cost of the asset is to be written off each year throughout the expected life of the asset. This example of depreciation is used in section 13.4 to demonstrate the journal and ledger account entries involved when depreciation is written off.

13.4 The adjusting entry for depreciation

Depreciation is usually allocated on the last day of each reporting period and is therefore called a balance day adjustment. (The subject of balance day adjustments is covered in detail in chapter 14). Each period, an adjusting entry is required to introduce the amount of depreciation to be written off. In the example for Sindoni's Supermarkets, the vehicle was purchased on 1 July 2015. If the reporting period ends on 30 June each year, the first adjusting entry to record the depreciation of the car would be as shown in figure 13.1.

Figure 13.1 General journal entry to record depreciation

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Jun 30	Depreciation of vehicle Accumulated dep'n of vehicle Adjusting entry for depreciation of vehicle at 15% per annum	4 800	4 800		

The debit entry to *depreciation* of vehicle is required because depreciation is an expense item. Therefore, the above entry increases the expense account for depreciation. The credit entry to accumulated depreciation is an increase in a negative asset account. As its name suggests, the **accumulated depreciation** account is used to accumulate or add up the total depreciation written off an asset so far. It is known as a negative asset account because it is deducted from the related asset account (in this case Vehicle) in the balance sheet. This is explained further in the notes to figure 13.3. When posted to the general ledger accounts, the above journal entry results in the following ledger entries:

ISBN 978 1 4202 3058 1

Depreciation of vehicle a/c

2015		$	2015		$
Jun 30	Accumulated dep'n of vehicle	4 800			

Accumulated depreciation of vehicle a/c

			2015		
			Jun 30	Dep'n of vehicle	4 800

As the depreciation account is an expense, it is closed off to the profit and loss summary account on balance day along with all other expenses. Using the data from the above example, the related closing entry would be recorded in the general journal as shown in figure 13.2.

Figure 13.2 General journal entry to close a depreciation account

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Jun 30	Profit & loss summary	4 800			
	Depreciation of vehicle		4 800		
	Closing entry				

When the closing entry is posted to the general ledger the accounts will appear as shown below.

Depreciation of vehicle a/c

2015		$	2015		$
Jun 30	Accumulated dep'n of vehicle	4 800	Jun 30	P&L summary	4 800

Accumulated depreciation of vehicle a/c

			2015		
			Jun 30	Dep'n of vehicle	4 800

Profit and loss summary a/c

2015					
Jun 30	Dep'n of vehicle	4 800			

ISBN 978 1 4202 3058 1

It is important to note at this stage that the depreciation account and the accumulated depreciation account are totally different in their nature. As the depreciation account is an expense account, it is closed off each reporting period and therefore is returned to a zero balance on balance day. The accumulated depreciation account, being a negative asset account, is balanced each period, with the balance being carried forward to the following reporting period. Continuing with the above example, the accounts have been redrafted below to illustrate the ledger entries after two periods have passed.

Depreciation of vehicle a/c

2015		$	2015		$
Jun 30	Accum. dep'n vehicle	4 800	Jun 30	P&L summary	4 800
2016			2016		
Jun 30	Accum. dep'n vehicle	4 800	Jun 30	P&L summary	4 800

Accumulated depreciation of vehicle a/c

2016			2015		
			Jun 30	Dep'n of vehicle	4 800
			2016		
Jun 30	Balance	9 600	Jun 30	Dep'n of vehicle	4 800
		9 600			9 600
			Jul 1	Balance	9 600

Under the straight-line method of depreciation, the amount recorded as depreciation is the same each period. The depreciation expense is closed off to the profit and loss summary account each year. The accumulated depreciation account simply adds on the period's depreciation to that amount already depreciated in previous reporting periods.

However, there are two circumstances where the amount of depreciation entered on balance day may vary from that demonstrated above. The first of these occurs when the reporting period is less than a year. For example, a business owner may report monthly or quarterly. As straight-line depreciation is based on the actual time expired, it is a matter of simply dividing the annual depreciation expense into smaller periods. In the above example, the vehicle was being depreciated at the rate of $4 800 per year. If the reporting period was half a year, the depreciation to be allocated should be half of this amount, so $2 400 would be allocated. If the business reported quarterly, only $1 200 would be allocated each quarter ($4 800/4). In the case of monthly reporting, $4 800/12 = depreciation of $400 per month.

The second complication may be that the business purchased the asset during the reporting period, rather than right at the start of the period. Once again, it is simply a case of determining how long the asset has been under the control of the entity and determining how much depreciation is relevant to that time period. In the case of the vehicle owned by Sindoni in the above example, it was purchased on 1 July and balance day was 30 June—therefore a full year's depreciation was allocated. If, however, the vehicle was purchased on 1 April, only three months would have expired by balance day. Thus depreciation would only be for three months, or a quarter of the full year's amount. Therefore, when calculating depreciation, always check two details: first, check the length of the reporting period. Second, check how long the asset has actually been under the control of the entity. Determine the annual depreciation expense and then adjust this amount for either of the two circumstances outlined above.

ISBN 978 1 4202 3058 1

13.5 Depreciation and the balance sheet

It is important to understand the two-fold effect that depreciation has on the balance sheet of a firm. As depreciation is an expense item, it has the effect of decreasing profit and therefore decreasing the owner's equity at the end of the period. The second effect on balance day is to reduce the amount shown for the asset in the balance sheet. Figure 13.3 demonstrates the presentation of the details relating to the asset used in the previous example: that is, the vehicle owned by Sindoni's Supermarket.

Figure 13.3 Balance sheet (extract) as at 30 June 2015

Non-current assets	
Vehicle	$32 000
less Accumulated depreciation	4 800
	27 200

There are three different dollar values shown in figure 13.3, and they represent the following details relating to the vehicle:

1. The $32 000 is the invoice price of the asset, plus any other costs incurred in getting the asset into a revenue-earning capacity. These costs may include items such as installation charges, stamp duty and dealer's delivery charges. Therefore, the total of $32 000 represents the historical cost of the vehicle. This total cost figure is always shown in the balance sheet as long as the asset is under the control of the business.
2. The $4800 shown as accumulated depreciation is the total amount of depreciation allocated from the day the asset was first purchased up until the date of the report. This figure will be increased each reporting period. Another term used to describe this figure is the **expired cost** of the asset.
3. The $27 200 is made up of two components: the value of the asset yet to be depreciated and the estimated scrap value of the asset. Popular terms used to describe this figure include the **book value** or the **carrying value** of the asset. The term 'carrying value' is preferred, as it indicates the cost of the asset still being **carried** by the business, as distinct from the asset's original historical cost. However, it may also be referred to as the 'written-down value' or the 'unexpired cost' of the asset. As more depreciation is written off over the years, the accumulated depreciation of an asset increases and therefore the carrying value of the asset decreases. Over the useful life of the asset, the example of Sindoni's vehicle would be reported in the balance sheets of the business as follows:

Balance sheets (extracts) as at 30 June:

	2015	*2016*	*2017*	*2018*
	$	*$*	*$*	*$*
Non-current assets				
Vehicle	32 000	32 000	32 000	32 000
less Accum. dep'n	4 800	9 600	14 400	19 200
	27 200	22 400	17 600	12 800

ISBN 978 1 4202 3058 1

Note that the historical cost of the vehicle is reported in each balance sheet throughout the asset's life. Rather than adjust the historical cost of the asset, the accumulated depreciation increases by the amount of depreciation charged each year ($4800), which causes a corresponding decrease in the carrying value of the asset as each year passes.

13.6 Depreciation and the income statement

As depreciation is an expense item, it is closed off to the profit and loss summary account in the general ledger. It will also be reported in the income statement when final reports are being prepared. As depreciation is an expense, it is clearly a **relevant** item in terms of the demands of SAC2. However, SAC2 also demands that items should be based on **reliable** evidence and not be unduly affected by opinions or personal bias. This creates the possibility of a conflict between these two qualitative characteristics. As depreciation is based on **two** estimates (an estimate is made for both **residual value** and **useful life**), the amount written off each year may be questionable, as it cannot be verified by documentary evidence. However, this is considered quite acceptable, because the demands of the income statement in terms of including all **relevant** expenses outweighs the fact that depreciation is not a **reliable** item. Although it is often difficult to predict future scrap values after years of use, it is better to have an estimated amount written off as depreciation rather than to not have depreciation in the income statement at all. In summary, the demands of **relevance** outweigh the concern of not being able to verify depreciation to ensure its **reliability**.

› GLOSSARY OF TERMS

accumulated depreciation the total amount of depreciation that has been written off from the date the asset came under the control of the business until the present time.

book value see **carrying value**.

carrying value the value of a non-current asset yet to be depreciated (calculated by deducting accumulated depreciation from an asset's historical cost).

depreciation expense the amount of depreciation written off as an expense for one particular reporting period.

expired cost the value of a non-current asset that has already been written off as depreciation.

fixed instalment method see **straight-line method**.

residual or scrap value the amount an asset is expected to realise at the end of its useful life when it is sold, traded in or scrapped.

straight-line method (or **fixed instalment method**) a method of depreciation that allocates the same amount of depreciation every reporting period, regardless of the age of the asset.

useful life the period of time that a business expects to use a non-current asset for the purpose of earning revenue.

ISBN 978 1 4202 3058 1

Summary questions

1. What is depreciation?
2. Explain how depreciation is part of accrual accounting and complies with the reporting period principle.
3. Explain what is meant by the 'historical cost' of a non-current asset.
4. Depreciation is based on the cost of an asset. Outline the items that should be included in this definition of 'cost'.
5. What is meant by the 'scrap value' of an asset? Why is it important when calculating depreciation?
6. State the double entry necessary to record the balance day adjustment for depreciation of a computer of $2000.
7. State the closing entry that would result from the adjusting entry in question 6.
8. Explain what is meant by the 'carrying value' of an asset.
9. Describe the two-fold effect that depreciation has on the accounting reports of a firm.
10. The following information was extracted from a balance sheet:

Vehicle	$45 000	
less Accumulated depreciation	$14 000	$31 000

    Explain what each of the following dollar values represents in the above extract:

    a $45 000

    b $14 000

    c $31 000.

11. Describe the nature and function of the following general ledger accounts:

    a Depreciation of equipment

    b Accumulated depreciation of equipment.

12. Explain how the allocation of depreciation causes a conflict between the demands of **relevance** and **reliability**, as outlined in SAC2.

ISBN 978 1 4202 3058 1

Practical exercises

[Exercise 13.1]

Tessie's Toy Store purchased a new computer system on 1 April 2015. The following information relates to this computer:

Purchase price	$4 920
Maintenance contract	$120 per year
Insurance	$50 per year
Installation	$80

The owner estimates that she will use the computer in the business for three years and then sell it for about $1 100.

a Calculate the total cost of the asset that should be considered for depreciation.

b In your answer to part **a**, did you exclude any items from the list of payments stated above? If so, explain how you would treat these items in the accounting reports of the business.

c Using the straight-line method of depreciation, calculate the depreciation expense per annum.

d Express the depreciation per annum as a percentage of the cost of the asset.

e Prepare the adjusting entry for depreciation in the general journal on 31 March 2016.

[Exercise 13.2]

Ben Wilson is the owner of Wilson's Wheels, a small business that specialises in tyres and alloy wheels. On 1 July 2015 he purchased a photocopier for his business office at a cost of $15 000. The manufacturer also charged Wilson $1 000 for installing and setting up the machine. The reporting period for Wilson's Wheels ends on 31 December each year. He expects the photocopier to have a useful life of about three years, after which he expects to sell it for approximately $4 000.

a Calculate the depreciation expense to be charged per annum under the straight-line method of depreciation.

b How much depreciation expense would be written off for the years ended 31 December 2015, 2016 and 2017?

c Prepare balance sheet extracts to show how the photocopier would be reported as at 31 December 2015, 2016 and 2017.

[Exercise 13.3]

Frankston Furniture purchased a new delivery van on 1 June 2015 for $19 000. Dealer's charges and stamp duty totalling $2 000 were also paid, along with registration and insurance of $900 for 12 months' cover. The estimated useful life of the van was four years and the estimated residual value was $6 600.

a Calculate the annual depreciation expense to be written off under the straight-line method.

b Prepare the general journal entry to record the depreciation expense on the balance days of 30 June 2015 and 30 June 2016.

ISBN 978 1 4202 3058 1

- **c** Prepare the closing entries relevant to depreciation on 30 June 2015 and 30 June 2016.
- **d** Post the entries prepared in parts **b** and **c** to the relevant general ledger accounts.
- **e** Prepare an extract of the balance sheet to show the reporting of the delivery van as at 30 June 2015 and 30 June 2016.

[Exercise 13.4]

Andrew Payne is the proprietor of Bellarine Books and on 1 July 2015 he purchased new shop fittings for $12 000 cash. He has decided to depreciate the fittings at 20% per annum using the straight-line method of depreciation. The books of the business are closed on 31 December each year.

- **a** Prepare the necessary adjusting and closing entries for depreciation of the shop fittings for the years ended 31 December 2015, 2016 and 2017.
- **b** Prepare the shop fittings account, the depreciation of shop fittings a/c and the accumulated depreciation of shop fittings account for the period 1 July 2015 to 31 December 2017.
- **c** Show how the shop fittings would be shown in the balance sheet as at 31 December 2015, 2016 and 2017.
- **d** Explain how depreciation ties in with the demands of the qualitative characteristic of **relevance**.

[Exercise 13.5]

Louise Kurkowski is the proprietor of L.K.'s Billiard Tables and she purchased $6 520 of new office equipment on 1 November 2015. The equipment has an expected useful life of four years, after which it will be sold. The anticipated residual value is $2 200. The firm closes its books on 30 June each year.

- **a** Using the straight-line method of depreciation, calculate the annual depreciation expense.
- **b** What is the expense for depreciation of office equipment for the year ended 30 June 2016?
- **c** Prepare the following general ledger accounts for the period 1 November 2015 to 30 June 2017: office equipment, depreciation of office equipment and accumulated depreciation of office equipment.
- **d** Show how the asset office equipment would be reported in the firm's balance sheet on 30 June 2016, 2017 and 2018.

[Exercise 13.6]

Eva's Emporium purchased a new delivery van on 1 April 2015 for $18 600. To enable the van driver to keep in touch with head office, a two-way radio was installed as a permanent fixture in the vehicle. The radio system and its installation cost a total of $2 400. The firm uses the straight-line method to depreciate its assets. It is planned to use the van for three years and then trade it in on a newer model. The anticipated trade-in allowance is expected to be approximately $6 000.

- **a** Explain, and justify, how you would treat the cost of $2 400 for the two-way radio.
- **b** Calculate the annual depreciation expense of the delivery van.
- **c** In relation to the van, how much depreciation expense should appear in the income statement for the year ended 30 June 2015?

ISBN 978 1 4202 3058 1

d Prepare the required adjusting and closing entries for the depreciation of the van for the years ended 30 June 2015, 2016 and 2017.

e Prepare extracts of the firm's balance sheet to show how the delivery van would be reported as at 30 June 2015, 2016 and 2017.

[Exercise 13.7] Ben O'Brien is the owner of Bob's Bats & Balls. He uses the straight-line method of depreciation and he has provided the following accounts from his general ledger:

Vehicle a/c

		$			$
1/3/15	Cash at bank	42 000			

Depreciation of vehicle a/c

30/6/15	Accum. dep'n vehicle	2 240	30/6/15	P&L summary	2 240

Accumulated depreciation of vehicle a/c

			30/6/15	Dep'n of vehicle	2 240

a What is the annual depreciation expense being allocated from the cost of this vehicle?

b What percentage of the asset's cost is being written off per annum?

c What will be the balance of accumulated depreciation on 30 June 2017?

d Prepare balance sheet extracts to show how the vehicle would be reported as at 30 June 2015, 2016 and 2017.

e O'Brien plans on using the vehicle in his business for four years. What was his original estimate of the vehicle's scrap value?

[Exercise 13.8] The following information was extracted from the books of Mitchell's Menswear:

General ledger

Shop fittings a/c

		$			$
1/7/15	Cash at bank	16 000			

Depreciation of shop fittings a/c

31/12/15	Accum. dep'n shop fittings	1 400	31/12/15	P&L summary	1 400
31/12/16	Accum. dep'n shop fittings	2 800	31/12/16	P&L summary	2 800

Accumulated depreciation of shop fittings a/c

			31/12/15	Dep'n of shop fittings	1 400
31/12/16	Balance	4 200	31/12/16	Dep'n of shop fittings	2 800
		4 200			4 200
			1/1/17	Balance	4 200

ISBN 978 1 4202 3058 1

a What is the historical cost of the shop fittings owned by Mitchell's Menswear?

b What is the annual depreciation expense in relation to the firm's shop fittings?

c What percentage of the asset's cost is written off per annum?

d What will be the carrying value (or book value) of the shop fittings on 31 December 2017?

e If the estimated scrap value of the shop fittings is $2000, what is the estimated useful life of the asset?

f On what date does the firm plan on scrapping the asset?

g Consider the following: 'Depreciation is based on estimates. It is therefore unreliable, and should not be included in an income statement.' Do you agree with this statement? Your answer should consider the demands of **relevance** and **reliability** as set out in SAC2, and refer to financial data provided for Mitchell's Menswear.

CASE STUDY

DARRELL CRUSE is the owner of Northern Furniture, a retail business that specialises in home and office furniture. As the business grew over the years, Cruse has discovered that free delivery was one way of attracting additional customers. He now delivers most of the goods that are sold by his business, but this has meant that new vehicles had to be purchased in order to keep up with demand. The following information has been provided in relation to the delivery vehicles that his business has bought over the years. Note: it is the firm's policy that all vehicles owned by the business will be kept for three years before being sold or traded in on new vehicles.

Vehicle 1: purchased on 1/1/2014 for $28000, plus modifications that cost $1000. The vehicle is insured at a cost of $500 and registration costs $450 each year. Estimated residual value is $9800.

Vehicle 2: Bought as a new vehicle for $32000 on 28/2/15. Dealer's delivery fee was $1100. Insurance of $600 and registration of $450 were paid on 28 February as well. Predicted scrap value is $11400.

Vehicle 3: Cost of the new vehicle on 1 September 2015 was $36400, including 12 months' insurance of $600 and registration of $480. Dealer's delivery fee of $1200 was paid in cash. A two-way radio was installed in this vehicle as a permanent fixture on 1 September 2015 at a cost of $1460. Expected residual value in three years' time is $19200.

Vehicle 4: This vehicle was bought as a second-hand model for $16000 on 31 January 2016. Registration was arranged at an annual cost of $480. The vehicle has not been insured. Estimated residual value when useful life has expired is about $8400.

a Calculate the amount of depreciation expense that would be shown in the income statements for the years ended 30 June 2015, 2016 and 2017 (show all workings).

b Prepare extracts from the balance sheets as at 30 June 2015, 2016 and 2017, to show how the asset Vehicles would be reported in each of these three years.

c Explain the link (if any) that exists between the qualitative characteristic of reliability and your calculations for depreciation of vehicles.

d Consider the following statement: 'Depreciation is based on estimates of residual value, not on historical cost.' Do you agree with this statement? Give reasons to justify your answer.

ISBN 978 1 4202 3058 1

Chapter 14

Profit determination and balance day adjustments

OBJECTIVES

At the completion of this chapter, you should be able to:

- describe the going concern principle
- outline the reporting period principle and its relationship with balance day adjustments
- explain the need for balance day adjustments under the accrual method of accounting
- describe the role of adjusting and closing entries
- record entries in the general journal for prepaid expenses using the asset approach
- record entries in the general journal for accrued expenses
- describe the treatment of accrued expenses in a subsequent period when payment is made
- record adjustments for stock losses and stock gains
- prepare ledger accounts incorporating balance day adjustments
- describe the two-fold effect that balance day adjustments have on final accounting reports
- calculate profit under the accrual method of accounting.

ISBN 978 1 4202 3058 1

14.1 Profit determination: underlying assumptions

Before introducing the various problems faced when attempting to determine profit, it is important to understand the accounting rules and principles on which profit determination is based. (Some of these rules have already been mentioned earlier in this text.) The first of these is the **going concern principle**, which assumes that the business will continue to operate as a going concern for an indefinite period into the future. This rule allows accountants to report non-current assets in a balance sheet, assuming that they have some future economic value to the business. However, it is of little value to sit back and wait until a business is wound up before reporting on its activities. There is a need to report on the performance of a business on a periodic basis. In response to this need, the **reporting period principle** was created. This principle divides the indefinite life of a business into arbitrary periods of time. The reporting period can be any length of time, with a maximum of one year due to taxation requirements. The purpose of the reporting period principle is to specify a period of time over which the performance of the business can be measured. Therefore if a yearly reporting period is selected, a profit or loss for that period of time will be determined. The role of the reporting period is simply to define the start and finish of a period of time over which profit will be measured. The last day of the reporting period is known as balance day.

Having determined the length of the reporting period, the qualitative characteristic of **relevance** can then be applied to determine the revenue and expenses to be included for a particular reporting period in order to calculate an accurate profit or loss figure. This chapter is based on **accrual accounting**, whereby profit is defined as revenue earned less the expenses incurred in earning that revenue. This method recognises that a business can earn revenue in one reporting period and actually receive the cash in a previous or subsequent period. It also recognises that some cash payments may relate to items owing from a previous reporting period or be paid in advance for a future period. The **accrual method** of accounting attempts to measure the revenue and expenses that belong to the same period of time. The following transactions will be used to highlight the application of accrual accounting to practical examples. Note that all examples are for a business that uses 31 December as balance day.

Transaction 1: Sales invoices for goods sold during December totalled \$10 000. On 31 December only \$2 000 of this had been received in cash.

Under accrual accounting: Sales revenue = \$10 000, as this amount was earned in the current period. The whole \$10 000 is recognised as revenue, regardless of the fact that \$8 000 has not yet been received. This is possible because the revenue-earning process has been completed and there is objective evidence of the amount of revenue earned (the invoices). As long as these two requirements are satisfied, revenue may be recognised as being earned under accrual accounting.

Transaction 2: On 1 July a yearly insurance premium of \$2 000 was paid.

Under accrual accounting: Insurance expense = \$1 000, as only one half of the insurance payment has been incurred (or expired) during the current reporting period. The other \$1 000 will be recognised as an expense in the following period.

Transaction 3:

Advertising paid this year totalled \$4 000, with \$1 000 of this amount relating to advertising that was done during the previous reporting period.

Under accrual accounting: Advertising expense = \$3 000, as this is the amount of expense that belongs to the current reporting period. It ignores the other \$1 000, as that relates to the previous year and therefore was not incurred during the current reporting period.

ISBN 978 1 4202 3058 1

14.2 Accrual accounting and balance day adjustments

At the end of a reporting period, a trial balance should be prepared to check the accuracy of the double entries made during the period. Having completed this process, accounting reports can then be prepared. In order to comply with the demands of accrual accounting, the figures in the trial balance must equate to revenue earned and expenses incurred. However, quite often the accounts will only reflect the cash flows that took place during the period. Some of these cash flows may relate to revenues and expenses that relate to either the previous or subsequent reporting periods. **Balance day adjustments** have the function of adjusting the balances of revenue and expense accounts so that they equal the amounts of revenue earned and expenses incurred. Before demonstrating various examples of balance day adjustments, it is important to explain the differences between two types of entries made in general ledger accounts via the general journal.

Adjusting entries are the entries made in revenue and expense accounts to make them equal to revenue earned and expenses incurred. Adjusting entries are made on the last day of the reporting period: that is, on balance day.

Closing entries are used to close off the adjusted revenue and expense accounts to the Profit and Loss Summary account. Closing entries are also made on balance day.

14.3 Prepaid expenses (the asset approach)

An asset is defined in SAC2 as a future economic benefit controlled by an entity. SAC2 also defines an expense as the consumption or decrease in future economic benefits. When a business pays for an item in advance, a question arises: does the item represent an asset or an expense?

Consider the case of a $480 12-month insurance premium paid in advance on 1 October 2015. What is the double entry for such a transaction? The credit entry is quite clear. As cash at bank has decreased, it must be credited. There are two possibilities for the debit entry. One is to treat the initial payment as an asset, while the second is to treat it as an expense.

This $480 insurance premium appears to qualify under the SAC2 definition of an asset. It is controlled by the entity and has future economic benefits. Therefore it should be recorded as an asset when the transaction occurs on 1 October 2015. The dilemma for students of Accounting is that normally insurance is referred to as an expense, and so it is. However, when an expense is paid in advance, it has not been consumed and therefore does not yet satisfy the SAC2 definition of an expense. To avoid confusion, an expense paid in advance is referred to as a **prepaid expense**. That is, a prepaid expense exists when a payment relates to a future economic benefit because the item has not yet been consumed. Therefore, if wages are paid at the end of the working week they are treated as an expense because the economic sacrifice has been fully consumed. If insurance is paid in advance (or any other expense), the economic benefit is yet to be used and therefore an asset has been created.

Having decided to record the insurance payment in an asset account (prepaid insurance), the problem then switches to balance day. If the business in the above example closes its books on 31 December, how much insurance should be taken into account? Accrual accounting requires that only the *relevant* amount of insurance expense is deducted from the period's revenue in order to determine an accurate profit, but the insurance payment was debited to an asset account. The next step is to transfer out of the asset account the amount of expense that has been used up, or has expired. Using the details of the $480 insurance payment, the following summary can be prepared:

ISBN 978 1 4202 3058 1

1 October 2015:	Insurance paid $480 (which equals a cost of $40 per month)
31 December 2015:	Insurance expense incurred in 2015 (three months used) 3 × $40 = $120
31 December 2015:	Prepaid insurance for 2016 (nine months not used) 9 × $40 = $360

As the insurance was paid on 1 October for 12 months in advance, only three months has expired before balance day (31 December). Therefore only one quarter ($120) of the total payment should be treated as an expense. The other $360 remains as an asset, as it still has future economic benefit for the business. The prepaid insurance account is shown below, with both the original cash payment and the necessary adjusting entry to insurance expense on 31 December.

Prepaid insurance expense a/c

		$			$
2015			2015		
Oct 1	Cash at bank	480	Dec 31	Insurance expense	120

Insurance expense a/c

2015					
Dec 31	Prepaid insurance expense	120			

The effect of the adjusting entry is shown in the above ledger accounts. As some of the insurance paid has now been used, it has been removed from the asset account by the credit entry and transferred to the expense account (insurance expense) on balance day. The balance of the prepaid insurance account is now $360 ($480 – $120), which is the economic benefit remaining as at 31 December 2015. The insurance expense account is now ready for closing to the profit and loss summary account. As the prepaid insurance account is an asset, it is balanced in the usual way. The closing and balancing of these two accounts results in the following entries:

Prepaid insurance expense a/c

		$			$
2015			2015		
Oct 1	Cash at bank	480	Dec 31	Insurance expense	120
			Dec 31	Balance	360
		480			480
2016					
Jan 1	Balance	360			

Insurance expense a/c

2015			2015		
Dec 31	Prepaid insurance expense	120	Dec 31	P&L summary	120

ISBN 978 1 4202 3058 1

The expense account is now closed and the amount of expense incurred in the current period ($120) has been transferred to the profit and loss summary account. The amount of insurance not yet used ($360) remains in the prepaid insurance account and will be reported in the balance sheet as a current asset.

As with all general ledger recordings, the adjusting and closing entries are all journalised first before being entered in the general ledger. Because of the nature of the entries involved, the general journal is used for all of these double entries. Using the data from the previous example the general journal entries would be prepared as in figure 14.1:

Figure 14.1 General journal adjusting and closing entries for prepaid expenses

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
2015 Dec 31	Insurance expense Prepaid insurance expense Adjusting entry for three months Insurance expired	120	120		
	P&L summary Insurance expense Closing entry	120	120		

The above example was written to demonstrate how prepaid expenses should be treated on balance day. However, it is important to keep in mind that when expenses are paid (including prepaid expenses) a business may also have to pay GST. Expenses such as wages do not attract the GST, but other expenses may. In the case shown above, the annual insurance premium paid was $480. Applying the 10% GST to this amount would mean that the business would actually pay a total of $528, consisting of $480 for the expense plus $48 GST. The VCE Accounting course also requires you to know how to record such an item in the cash payments journal at the time of payment. As it is unlikely that any business would have a special column for prepaid insurance, the transaction would be recorded in the cash payments journal as shown in figure 14.2.

Figure 14.2 Cash payments journal to record the payment of a prepaid expense

Date	Details	Chq. no.	Bank $	Stock $	Advert. $	Sundries $	GST $
Oct 1	Prepaid insurance expense	101	528			480	48

ISBN 978 1 4202 3058 1

14.4 Accrued expenses (expenses owing)

An expense account may include several cash payments for costs paid during the reporting period, but there may be additional outstanding accounts on balance day. If these costs have been incurred in the current reporting period, they too should be included in profit calculations for the current period. Consider the case of a business that paid $800 for advertising during 2015. On 31 December the firm owes another $200 for advertising completed during December. In this case, the cost incurred for advertising during 2015 is $1 000, yet the balance of the advertising account in the trial balance would only be $800 before adjustments have been entered. The advertising account has been prepared below and includes the necessary balance day adjustment.

Advertising expense a/c

2015		$			$
Jan–Dec	Cash at bank	800			
Dec 31	Accrued advertising exp.	200			

Accrued advertising expense a/c

			2015		
			Dec 31	Advertising expense	200

The adjusting entry for the **accrued expense** has the following features. First, the debit entry increases the expense account so that it equals the total cost incurred for the period (that is, $1 000). Secondly, it creates a liability on balance day in the form of the accrued advertising account. In the above case the business owes $200 as at 31 December. As this $200 is a present obligation resulting from a past event, SAC2 demands that it be reported as a liability. As this type of debt would usually be paid within a short period of time (perhaps 30 or 60 days), it is classified as a current liability. The closing entry is entered as usual on the credit side of the expense account (see below). This closing entry transfers the advertising expense for the period ($1 000) to the Profit and Loss Summary account on balance day.

Advertising expense a/c

2015		$	2015		$
Jan–Dec	Cash at bank	800			
Dec 31	Accrued advertising expense	200	Dec 31	P&L summary	1 000
		1 000			1 000

The general journal entries required for the adjusting and closing entries for accrued advertising have been prepared in figure 14.3 on page 288.

Figure 14.3 General journal adjusting and closing entries for accrued expenses

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
2015 Dec 31	Advertising expense Accrued Advertising expense Adjusting entry for advertising owing	200	200		
	P&L summary Advertising expense Closing entry	1 000	1 000		

It is important at this stage to consider the treatment of accrued expenses in the subsequent reporting period. In the above example, an accrued advertising account was created for advertising owing on balance day. The $200 listed as owing at that time would be reported in the balance sheet as a current liability. This item would be paid sometime in the early stages of the next reporting period (for example, 5 January). When the amount owing is paid off, it should *not* be recorded as an expense in the new period. The following double entry will ensure that this is achieved (the related GST payment has also been included):

Accrued advertising	200 Dr
GST clearing	20 Dr
Cash at bank	220 Cr

Because this item is a cash payment, it would be recorded in the cash payments journal along with all other payments. However, it is vital that the payment of $200 is debited to accrued advertising, and not to advertising expense. This will avoid counting the advertising payment as an expense twice. When creating the accrued account on balance day, a specific title such as 'accrued advertising expense' should be used rather than the generic term 'accrued expenses'. This will allow the expense that is owing to be easily identified and, when it is paid off in the new reporting period, the accrued account can be eliminated. When the cash payment is made, the Accrued Advertising expense account will appear as follows:

Accrued advertising expense a/c

		$			$
Jan 31	Cash at bank	200	Dec 31	Advertising expense	200

Sometimes when an accrued item is paid in a subsequent reporting period it may be part of a larger cash payment. This payment may also include an expense item for the new period, in addition to the amount owing from the previous period. For example, in the above account

ISBN 978 1 4202 3058 1

$200 was owing for advertising from the previous period. This amount was then paid off during January. However, what happens if $500 (plus GST of $50) was paid for advertising on 5 January, including the $200 owing as at 31 December? This $500 can be broken down into two parts: $200 is the amount owing from last period and the remaining $300 relates to advertising expense for the new period. If this is the case, it is important to record the two amounts accurately. First, the $200 owing should be closed off in the liability account. The second part of the transaction is to record the other $300 in the advertising expense account as usual. Thus, the following entries result:

Accrued advertising expense a/c

		$			$
Jan 31	Cash at bank	200	Dec 31	Advertising expense	200

Advertising expense a/c

Jan 31	Cash at bank	300			

Assuming that the $500 advertising was paid with the one cheque, it is important to record this payment correctly in the cash payments journal. The total amount must be split between the payment of the liability and the payment of the expense. There are two possibilities in this situation, depending on whether or not the business owner has a designated column for advertising expense in the cash payments journal. If a special column exists, the transaction should be recorded as shown in figure 14.4.

Figure 14.4 Cash payments journal to record the payment of an accrued expense

Date	Details	Chq. no.	Bank $	Stock control $	Advertising $	Sundries $	GST $
Jan 5	Accrued advertising expense	123	550			200	50
	Advertising expense				300		

Note that the full amount of the cheque ($550, including GST of $50) should be recorded in the Bank column, as this is the actual amount of cash being paid on 5 January. Then it is simply a matter of showing the amount that relates to the payment of the liability ($200); this should be listed as **accrued advertising expense** in the details column. The amount should be shown in the Sundries column to ensure that it is not accidentally recorded as an expense in the new period. The next step is to then record the amount of advertising expense that relates to the new reporting period (that is, the $300). This should be included in the special column designated for advertising, as this will be posted to the expense account at the end of the month. Of course, the payment of $50 GST must be recorded in the cash payments journal in the usual way.

The other likely complication may occur if an owner does not use a multi-column payments journal with a special column for advertising. This means that advertising would be shown in the Sundries column, as is the case with the accrued advertising expense. It is, however, still vital that the two dollar values be kept separate, as one relates to a liability and the other is an expense item. A journal without a special column for advertising has been prepared in figure 14.5.

Figure 14.5 Cash payments journal to record the payment of an accrued expense

Date	Details	Chq. no.	Bank $	Stock control $	Sundries $	GST $
Jan 5	Accrued advertising expense	123	550		200	50
	Advertising expense				300	

Note that $550 is still recorded in the bank column as the total value of the cash payment. The only difference in the above journal is the absence of a column for advertising, meaning that the amount of expense paid for the new period has to be entered in the sundries column. You should familiarise yourself with both possibilities for the payment of accrued items in the subsequent reporting period, as accounting records will vary from business to business.

14.5 Stock losses and gains

Although accounting for stock losses and gains has been covered earlier in this text, it is important to realise that such entries are also balance day adjustments. Physical stocktakes are carried out on balance day and, if necessary, an adjustment for a stock loss or gain is also done at this time. Chapter 9 covered the full details of perpetual inventory for trading firms, so for the purposes of this chapter a quick revisit of the entries on balance day is all that is required. Consider the following details:

Dec 31	Balance of stock control	$45 000
	Value determined from the physical stocktake	$42 500

In this situation a stock loss of $2500 has occurred. A balance day adjustment is required to decrease the balance of the stock control asset account to its correct figure. The adjustment also creates an expense account in the form of stock loss, as the business has experienced a consumption of economic benefits (although unintentionally) to the value of $2500. The adjusting and closing entries required are shown in figure 14.6 on the next page.

The other possible balance day adjustment required is to account for a stock gain. Consider the following details:

Dec 31	Balance of stock control	$45 000
	Value determined from the physical stocktake	$46 000

In this situation a stock gain of $1000 has occurred. A balance day adjustment is required to increase the balance of the stock control asset account to its correct figure. The adjustment also creates a revenue account in the form of stock gain, as the business has had an inflow of resources to the value of $1000. It could be argued that stock gains are merely an adjustment to expenses, since this type of gain often occurs because of recording or stocktaking errors. However, a stock gain may also occur through oversupply by a creditor. Although such an event should be detected when goods are delivered, it is possible that it may go undetected

ISBN 978 1 4202 3058 1

throughout the reporting period. The effect of oversupply is that the business has experienced an inflow of economic resources (albeit accidentally) and this therefore qualifies as a revenue item. Thus stock gains should be recognised as revenue and must be adjusted for on balance day. The adjusting and closing entries to record a stock gain of $1 000 are shown in figure 14.7.

Figure 14.6 General journal adjusting and closing entries for a stock loss

Date	Details	General ledger		Subsidiary ledger	
		Debit $	Credit $	Debit $	Credit $
2015 Dec 31	Stock loss Stock control Adjusting entry to decrease stock control to value of physical stocktake (Memo 23)	2 500	2 500		
	P&L summary Stock loss Closing entry	2 500	2 500		

Figure 14.7 General journal adjusting and closing entries for a stock gain

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
2015 Dec 31	Stock control Stock gain Adjusting entry to decrease stock control to value of physical stocktake (Memo 23)	1 000	1 000		
	Stock gain P&L summary Closing entry	1 000	1 000		

14.6 Case study: adjusting and closing entries

The following case study has been written to demonstrate the processes involved in recording adjusting and closing entries for a small business. A trial balance has been prepared for the business of Supreme Trading Store and this is followed by a series of balance day adjustments to be recorded on 30 June 2015.

ISBN 978 1 4202 3058 1

Supreme Trading Store: trial balance as at 30 June 2015

	$		$
Prepaid insurance expense	2 280	Sales revenue	121 000
Interest expense	12 000	Accum. dep'n—office furniture	500
Stock control	55 000	Loan—NAB	183 000
Advertising expense	2 600	Capital	375 120
Telephone expense	740	Interest revenue	200
Drawings	8 000	Creditors control	12 000
Wages	48 000	GST clearing	2 000
Term deposit (maturing 30/6/16)	5 000		
Cash at bank	4 500		
Debtors control	5 100		
Cost of sales	47 000		
Office furniture	3 600		
Premises	500 000		
	693 820		693 820

Adjustments required:
1 Insurance expense for the year—$2000
2 Stock on hand as at 30 June 2015—$54 600 (Memo 36)
3 B. Broak, a debtor who owes $1000, is to be written off as a bad debt
4 Advertising owing—$100
5 Depreciation—office furniture 10% p.a. on cost

The adjusting and closing entries required to account for the balance day adjustments would be recorded in the general journal as follows:

General journal

Date	Details	Dr $	Cr $	Dr $	Cr $
Jun 30	Insurance expense	2 000			
	Prepaid insurance expense		2 000		
	Adjusting entry for insurance expired				
	Stock loss	400			
	Stock control		400		
	Adjusting entry for stock loss revealed by stocktake (Memo 36)				
	Bad debts	1 000			
	Debtors control		1 000		
	B. Broak				1 000
	Debt written off as irrecoverable				

continued

ISBN 978 1 4202 3058 1

Date	Details	Dr $	Cr $	Dr $	Cr $
	Advertising expense	100			
	Accrued advertising expense		100		
	Adjusting entry for advertising owing				
	Depreciation of office furniture	360			
	Acc. dep'n office furniture		360		
	Adjusting entry for dep'n at 10% per annum				
	Sales revenue	121 000			
	Interest revenue	200			
	P&L summary		121 200		
	Closing entries				
	P&L summary	114 200			
	Insurance expense		2 000		
	Interest expense		12 000		
	Advertising expense		2 700		
	Telephone expense		740		
	Wages		48 000		
	Cost of sales		47 000		
	Stock loss		400		
	Bad debts		1 000		
	Depreciation—office furniture		360		
	Closing entries				
	P&L summary	7 000			
	Capital		7 000		
	Transfer of net profit				
	Capital	8 000			
	Drawings		8 000		
	Transfer of drawings				

These general journal entries must now be posted to general ledger accounts. The accounts involved in the profit determination process are shown on the next page, along with the items from the balance sheet that are affected by the adjusting entries.

ISBN 978 1 4202 3058 1

General ledger

Sales revenue a/c

		$			$
Jun 30	P&L summary	121 000	Jul–Jun	Cash at bank	121 000

Prepaid insurance a/c

Jul–Jun	Cash at bank	2 280	Jun 30	Insurance expense	2 000
				Balance	280
		2 280			2 280
Jul 1	Balance	280			

Insurance expense a/c

Jun 30	Prepaid insurance expense	2 000	Jun 30	P&L summary	2 000

Interest expense a/c

Jul–Jun	Cash at bank	12 000	Jun 30	P&L summary	12 000

Stock control a/c

Jun 30	Balance	55 000	Jun 30	Stock loss	400
				Balance	54 600
		55 000			55 000
Jul 1	Balance	54 600			

Stock loss a/c

Jun 30	Stock control	400	Jun 30	P&L summary	400

Advertising expense a/c

Jul–Jun	Cash at bank	2 600			
Jun 30	Accrued advertising exp.	100	Jun 30	P&L summary	2 700
		2 700			2 700

Accrued advertising expense a/c

			Jun 30	Advertising expense	100

Wages a/c

Jul–Jun	Cash at bank	48 000	Jun 30	P&L summary	48 000

Telephone expense a/c

Jul–Jun	Cash at bank	740	Jun 30	P&L summary	740

Cost of sales a/c

Jul–Jun	Stock control	47 000	Jun 30	P&L summary	47 000

continued

Interest revenue a/c

		$			$
Jul–Jun	P&L summary	200	Jul–Jun	Cash at bank	200

Debtors control a/c

		$			$
Jun 30	Balance	5 100	Jun 30	Bad debts	1 000
				Balance	4 100
		5 100			5 100
Jul 1	Balance	4 100			

Bad debts a/c

Jun 30	Debtors control	1 000	Jun 30	P&L summary	1 000

Depreciation of office furniture a/c

Jun 30	Accumulated dep'n of office furniture	360	Jun 30	P&L summary	360

Accumulated depreciation of office furniture a/c

			Jun 30	Balance	500
Jun 30	Balance	860		Dep'n of office furniture	360
		860			860
			Jul 1	Balance	860

Profit & loss summary a/c

Jun 30	Expense accounts	114 200	Jun 30	Revenue accounts	121 200
	Capital (N.P.)	7 000			
		121 200			121 200

Capital a/c

Jun 30	Drawings	8 000	Jun 30	Balance	87 120
	Balance	86 120		P&L summary	7 000
		94 120			94 120
			Jul 1	Balance	86 120

Drawings a/c

Jul–Jun	Cash at bank	8 000	Jun 30	Capital	8 000

The ledger accounts prepared above include the adjusting and closing entries for all of the balance day adjustments required. It is important to be able to trace the double entry for each of the adjustments through to the preparation of the profit and loss summary account. Once all processes required on balance day have been completed, the financial reports can be prepared in the usual way. These two formal reports are shown on the next page.

Supreme Trading Store: income statement for year ended 30 June 2015

	$	$
Revenue		
Sales revenue		121 000
less Cost of sales		47 000
Gross profit		74 000
less Stock loss		400
Adjusted gross profit		73 600
plus Other revenue		
Interest revenue		200
		73 800
less Expenses		
Insurance	2 000	
Interest expense	12 000	
Advertising	2 700	
Telephone	740	
Wages	48 000	
Bad debts	1 000	
Depreciation of office furniture	360	66 800
Net profit		7 000

Supreme Trading Store: balance sheet as at 30 June 2015

	$	$	$		$	$	$
Current assets				*Current liabilities*			
Cash at bank		4 500		Creditors control		12 000	
Debtors control		4 100		Accrued advertising expense		100	
Stock control		54 600		GST clearing		2 000	14 100
Term deposit (maturing 30/6/16)		5 000		*Non-current liabilities*			
Prepaid insurance exp		280	68 480	Loan—NAB			183 000
Non-current assets				Owner's equity			
Office furniture	3 600			Capital	375 120		
less acc. dep'n	860	2 740		plus net profit	7 000	382 120	
Premises		500 000	502 740	less drawings		8 000	374 120
			571 220				571 220

The two accounting reports shown have been prepared under the accrual method of accounting. The revenues and expenses reported in the income statement represent the revenues earned and expenses incurred during the reporting period. This also means that the dollar values shown are after adjustments have been made to the accounts. Note that this report has been prepared in line with the recommended format for VCE examinations. Stock losses or gains should be listed immediately after gross profit has been determined, with the resultant figure labelled as **adjusted gross profit**. If the business has earned revenue in addition to its

ISBN 978 1 4202 3058 1

cash and credit sales of stock items, this should be listed after the adjusted gross profit figure. From this new subtotal the other expenses of the business can then be deducted to determine the final net profit figure.

The balance sheet states the assets and liabilities after the adjustments have been made. Accrued expenses represent obligations of the business as at 30 June 2015 and are therefore reported as liabilities. Note also that the stock control account has been adjusted for the stock loss revealed by the physical stocktake. The term deposit (maturing 30/6/16) has been classified as a current asset because it is expected to be turned into cash within the next 12 months.

This case study covered the processes involved in recording balance day adjustments in a double entry accounting system based on accrual accounting. It is important to note that every balance day adjustment demonstrated in this case study affected an item in both financial reports. This situation will always occur because an adjustment must affect a revenue or expense account as well as an asset or liability. Such adjustments are necessary under accrual accounting in order to meet the demands of *relevance* and the **reporting period** principle. When all adjustments have been recorded, the result is a more accurate profit figure as well as a more accurate statement of a firm's financial position.

14.7 The adjusted trial balance

At the end of a reporting period, a trial balance should be prepared to ensure the accuracy of the double entries made during the reporting period. Once this has been checked, balance day adjustments may be entered into the books. To ensure that this process has been done correctly, a second trial balance may be prepared. An **adjusted trial balance** is prepared after balance day adjustments have been entered in the accounts. As all adjustments are included, the data in an adjusted trial balance is that used to prepare the final reports. Using the data as stated previously for Supreme Trading Store, the adjusted trial balance would be prepared as follows:

Supreme Trading Store: adjusted trial balance as at 30 June 2015

	$		$
Prepaid insurance expense	280	Sales revenue	121 000
Interest expense	12 000	Accumulated dep'n—office furniture	860
Stock control	54 600	Loan—NAB	183 000
Advertising	2 700	Capital	375 120
Telephone expense	740	Interest revenue	200
Wages	48 000	Accrued advertising expense	100
Term deposit (maturing 30/6/11)	5 000	GST clearing	2 000
Cash at bank	4 500	Creditors control	12 000
Debtors control	4 100		
Cost of sales	47 000		
Office furniture	3 600		
Drawings	8 000		
Premises	500 000		
Insurance expense	2 000		
Stock loss	400		
Bad debts	1 000		
Dep'n of office furniture	360		
	694 280		694 280

ISBN 978 1 4202 3058 1

It is important to always check the data presented for report presentation, as a trial balance contains completely different data to that of an adjusted trial balance. An income statement should be based on adjusted revenue and expense accounts. Therefore, an adjusted trial balance provides the required information. However, if a pre-adjustment trial balance is the only information available, always ensure that the appropriate balance day adjustments are processed first. Having made such adjustments, the final accounting reports may then be prepared to determine an accurate profit figure for the period.

GLOSSARY OF TERMS

accrual accounting a system of determining profit whereby revenue earned is matched with expenses incurred, with the difference being profit for the period.

accrued expenses expenses that have been incurred during a period but not yet paid. That is, they remain as liabilities on balance day.

adjusted trial balance a trial balance prepared after the recording of balance day adjustments has been completed.

adjusting entries entries made in the general journal to adjust revenue and expense accounts (see balance day adjustments).

balance day adjustments adjustments made to revenue and expense accounts at the end of a period so that they equal revenue earned and expenses incurred.

closing entry a general journal entry used to close off a revenue or expense account.

prepaid expenses expenses paid during a period but not yet used. That is, they are paid in advance at the time of payment and are recorded as assets until they are used up by the business, at which time they become an expense.

ISBN 978 1 4202 3058 1

Summary questions

1. Explain what is meant by the going concern principle.
2. What is the purpose of the reporting period principle? Why do accountants follow this principle?
3. What are balance day adjustments? What is the purpose of such adjustments?
4. Explain the role of each of the following types of general journal entries:
   a adjusting entries
   b closing entries.
5. Outline the circumstances that exist when an adjustment for prepaid expenses is required.
6. A business had a prepaid insurance account with a balance of $4000. On balance day the insurance expired for the period was determined as being $3400. If the adjusting entry were not made, what would be the effect on the firm's balance sheet? Complete the following table to show the effect of this omission (show dollar amounts where applicable):

Item	Overstated / Understated / No effect	$
Assets		
Liabilities		
Owner's equity		

7. What is an accrued expense? Explain the effect of an adjusting entry for an accrued expense on both the income statement and the balance sheet.
8. A firm had accrued advertising of $250 on balance day of 30 June 2015. State the double entry required when the advertising is paid on 2 July 2015 (including the GST payment of $25).
9. A business had accrued wages of $400 on balance day of 31 December 2015. State the double entry required when wages of $500 are paid on 2 January 2016.
10. Copy and complete the following table to show the effect of an adjusting entry for an accrued expense of $400 on the accounting equation (show dollar amounts where applicable):

Item	Increase	Decrease	No effect
Assets			
Liabilities			
Owner's equity			

11. What is the double entry required to account for a stock loss? Explain the two-fold effect a stock loss has on a firm's balance sheet.
12. Distinguish between a trial balance and an adjusted trial balance.

ISBN 978 1 4202 3058 1

Practical exercises

[Exercise 14.1]

Peter Mayer is the proprietor of Pete's Paint Shop. He commenced business on 1 July 2014 and has supplied the following information regarding his first year of business:

- Sales charged to customers totalled $120 000. Of this amount, all but $15 000 was received prior to 30 June 2015.
- Cost of sales for the year were $54 000.
- Advertising paid was $4 000. An account for $1 000 for advertising completed during June 2015 has not yet been paid.
- Insurance paid during the year was $3 600, of which $400 relates to the period July–September 2015.
- Office expenses for the year were $8 000, which was all paid by 30 June 2015.
- The business premises were rented at a cost of $4 000 per month. A total of $52 000 was paid during the year for rent.

a Prepare an income statement under the accrual method of accounting for the year ended 30 June 2015.

b Prepare an extract from the firm's balance sheet showing the current assets that would be reported on 30 June 2015 under accrual accounting as a result of the above information.

[Exercise 14.2]

Megan Paterson is the owner of Chelsea Lighting and has supplied the following information relating to the quarter ended 31 March 2015:

- Cost of sales for the quarter was $22 000.
- Stock loss amounted to $300.
- A three-month advertising contract costing $6 000 was paid on 1 February 2015.
- Wages paid for the quarter totalled $9 000.
- A total of $1 000 of vehicle expenses was paid during the quarter. Included in this was a yearly insurance premium of $480 paid on 1 March 2015.
- Depreciation of equipment for the quarter was $2 000.
- Sales revenue earned was $46 000, including $5 000 yet to be received.

Prepare an income statement for the quarter ended 31 March 2015 using the accrual method of accounting.

[Exercise 14.3]

The manager of Dickenson's Books has provided the following summary of the firm's transactions during 2015:

- Sales received totalled $88 000.
- Cost of sales for the year totalled $42 000.
- Wages paid to an assistant during the year were $29 000. A bonus of $1 000 was earned by the employee during December but had not been paid by balance day.
- Depreciation of equipment for the year was $1 200.

→

ISBN 978 1 4202 3058 1

- Depreciation of office furniture was $800.
- Stock as per stocktake $22 000: balance of stock control account $19 800.
- Insurance paid was $1 100. Prepaid insurance was $300 at 1 January 2015 and $400 at 31 December 2015.
- Cleaning expenses paid totalled $5 200. On 31 December an amount of $300 was owing for cleaning.

a Prepare an income statement under the accrual method of accounting for the year ended 31 December 2015.

b List the items that would appear in the firm's balance sheet under the headings of 'Current assets' and 'Current liabilities'.

[Exercise 14.4]

Kev's Kitchen Products paid $12 000, plus GST of $1 200, for 6 months rent in advance on 1 May 2015. Kev's reporting period ends on 30 June each year.

a State the double entry that would be made when the payment occurred on 1 May 2015.

b Prepare the adjusting and closing entries in the general journal that relate to the rent expense for the period which ends on 30 June 2015.

c Prepare the prepaid rent account and the rent expense account, with all relevant entries.

d Explain the purpose of the adjusting entry prepared in part **b** of this question.

e State, and explain, the effect on the firm's accounting reports if the balance day adjustment for rent was not done.

[Exercise 14.5]

Joseph Aing is the proprietor of St. Albans Furniture, a small business that owns three vehicles. The following ledger account has been used to record the yearly insurance premiums paid on these vehicles. The firm closes its books on 31 December each year.

Prepaid insurance a/c

2015		$			$
Jan 1	Balance	500			
Apr 1	Cash at bank	600			
Jun 30	Cash at bank	600			
Nov 1	Cash at bank	600			

a Calculate the insurance expense that would be reported under accrual accounting for the year ended 31 December 2015.

b Prepare the prepaid insurance account and record the adjusting and closing entries that would be made on 31 December 2015, if accrual accounting were used by this firm.

c Explain the link between the adjusting entry prepared in **b** above and the qualitative characteristic of relevance.

d How is the balance sheet affected by the adjusting entry prepared in **b**?

ISBN 978 1 4202 3058 1

[Exercise 14.6]

Billingham Trading paid a total of $2200 for equipment repairs during 2015. On 31 December 2015 the firm has in its possession an account for repairs done during December. This account was for $300 and has not been paid.

a Prepare the adjusting and closing entries in the general journal which relate to the repairs expense.

b Prepare the equipment repairs expense account and accrued equipment repairs account with all relevant entries on 31 December 2015.

c Explain how the adjusting entry prepared in **a** helps satisfy the reporting period principle.

d State, and explain, the effect on the firm's reports if the balance day adjustment was not recorded.

e On 31 January 2016 Billingham Trading made a cash payment of $550 in relation to equipment repairs. This amount included the $300 owing as at 31 December 2015, $200 incurred in the new reporting period, and the related amount of GST. Prepare the relevant entry in the cash payments journal, assuming that United Traders has a special column for equipment repairs.

f Post the entry made in your cash payments journal to both the equipment repairs expense account and the accrued equipment repairs account.

[Exercise 14.7]

Collingwood Clothing Store has an advertising contract with the local paper at a cost of $150 per month. During the year ended 30 September 2015 the firm had paid a total of $1500. The accounts for August and September 2015 have not yet been settled. The advertising account in the general ledger appears as follows:

Advertising expense a/c

2015		$			$
Oct–Sep	Cash at bank	1500			

a State the amount of advertising expense that would be reported for the year ended 30 September 2015 under accrual accounting.

b Prepare the adjusting journal entry that would be made on 30 September 2015.

c Prepare the advertising expense account in the general ledger, including the required adjusting and closing entries.

d State the two-fold effect of the adjusting entry on the balance sheet.

e On 31 October the business made a cash payment of $450, plus GST of $45. The $450 relates to advertising for the months of August, September and October 2015. Record this event in the relevant ledger accounts.

f Prepare the required entries in the cash payments journal for the payment of $495 on 31 October 2015.

[Exercise 14.8]

Highpoint Hardware made a credit sale to B. Riskee on 15 November 2014. The invoice price was $550, plus $55 GST, and this was entered into the debtors control account on 30 November 2014. The owner of Highpoint Hardware has chased Riskee for several months and on balance day has made the decision to write off Riskee's account as a bad debt.

ISBN 978 1 4202 3058 1

a Prepare the general journal entry to write off Riskee's debt on 30 June 2015.

b Explain the effect on the income statement and the balance sheet of Highpoint Hardware when this balance day adjustment is recorded.

[Exercise 14.9] The subsidiary ledger of Berry's Bars and Gifts included the following account:

Debtor—I. Nickoff a/c

2013		$		$
Mar 31	Credit sales/GST clearing	1 260		

After trying to track down Nickoff for most of the last two years, the owner of Berry's Bars and Gifts has just received legal advice informing him that Nickoff has been declared bankrupt. All of Nickoff's creditors are to be paid 12 cents for each dollar owed and a cheque was enclosed as a final payment. Berry has therefore decided to write off the remainder of Nickoff's balance as irrecoverable.

a Prepare the adjusting entry required to write off the debtor, using a four-column general journal.

b Prepare the subsidiary ledger account to show the receipt of cash from the debtor and the bad debts entry.

[Exercise 14.10] The following trial balance was supplied by the owner of Classic Furniture:

Classic Furniture: trial balance as at 31 December 2015

	$		$
Cash at bank	2 500	Capital—Buckley	48 000
Advertising	3 300	Sales	98 400
Stock control	51 000	Creditors control	1 000
Term deposit (30/6/17)	26 000	Accumulated dep'n of office furniture	800
Office furniture	4 000	Accumulated dep'n of vehicle	6 000
Vehicle	32 000	Loan—D.B.C. Finance	74 000
Prepaid insurance expense	3 400	GST clearing	1 000
Interest	6 400		
Cost of sales	45 800		
Drawings	6 400		
Rent	41 000		
Debtors control	6 000		
Telephone expense	740		
Stationery expense	660		
	229 200		229 200

ISBN 978 1 4202 3058 1

ADJUSTMENTS REQUIRED:

1. Stock as per stocktake as at 31 December 2015 was $50 000.
2. Prepaid insurance as at 31 December 2015 was $100.
3. Telephone expenses owing $120.
4. Depreciation: vehicle 25% per annum on cost
5. Office furniture 10% per annum on cost.

You are required to:

a Prepare all adjusting and closing entries required in the general journal on 31 December 2015.

b Prepare the following general ledger accounts, including any necessary adjusting and closing entries: prepaid insurance expense, telephone expense and stock control.

c Prepare an adjusted trial balance as at 31 December 2015.

d Prepare an income statement for the year ended 31 December 2015 and a classified balance sheet at that date.

e The business paid $200, plus GST of $20 for telephone expenses on 15 January 2016, which included the $120 owing from December 2015. Prepare the required entry in the cash payments journal on 15 January 2016.

[Exercise 14.11]

Norman Greig is the proprietor of Specialty Golf Gear, a business that specialises in imported golf equipment. The books of the business close on 30 June each year. Greig has provided the following trial balance at the end of the current reporting period:

ISBN 978 1 4202 3058 1

Specialty Golf Gear: trial balance as at 30 June 2015

	$	$
Cost of sales	32 000	
Creditors control		24 000
Land and buildings	428 000	
Prepaid advertising expense	1 440	
Cash at bank		11 000
Equipment	20 500	
Accumulated depreciation of equipment		4 100
GST clearing		1 200
Cash sales		86 440
Loan from National Australia Bank		56 000
Capital—Greig		420 300
Prepaid insurance expense	3 500	
Interest on loan	2 800	
Stationery expense	450	
Wages	17 360	
Stock control	62 000	
Vehicle	42 000	
Accumulated depreciation of vehicle		21 000
Telephone expense	750	
Petrol and oil—vehicle	1 240	
Drawings—Greig	12 000	
	624 040	624 040

ADJUSTMENTS REQUIRED:

1. The advertising expenses incurred for the year totalled $1200. The other costs paid for in advance are in relation to advertising for July 2015.
2. The interest on the bank loan is 10% per annum, payable in two equal instalments. The loan was taken out on 1 July 2012 and is an interest-only loan. Principal repayment is due on 30 June 2019.
3. A physical count of stock on hand on 30 June 2015 revealed total stock of $61 200.
4. Prepaid insurance as at 30 June 2015 was $750.
5. An account for petrol used in June has not been paid. Total cost owing was $150.
6. Depreciation to be allocated as follows:

   —on the equipment, 15% per annum on cost

   —on the vehicle, 20% per annum on cost.
7. A cheque was written for $280, plus GST of $28 for petrol expenses on 22 July, which included the amount owing as at 30 June 2015.

ISBN 978 1 4202 3058 1

You are required to:

a Prepare all adjusting and closing entries in the general journal.

b Prepare an adjusted trial balance as at 30 June 2015.

c Prepare an income statement for the year ended 30 June 2015.

d Prepare a classified balance sheet as at 30 June 2015.

e State the double entry required on 22 July when a cheque was written out for petrol expenses.

f Taking into account the relevant information stated above, determine how long this business has owned its vehicle. Show all workings in your answer.

[Exercise 14.12] The following trial balance relates to the business of Le Prints.

Le Prints: trial balance as at 30 September 2015

	$		$
Cash at bank	5 200	Capital—D. Mildenhall	82 000
Advertising	1 200	Cash sales	54 000
Debtors control	9 700	Credit sales	32 000
Cost of sales	42 100	Accum. dep'n equipment	6 600
Equipment	22 000	Accum. dep'n vehicle	4 500
Assistant's wages	23 000	Loan—M.T. Finance	18 000
Interest on loan	1 880	Creditors control	10 000
Stock control	44 500	Commission revenue	200
Drawings	14 600	GST clearing	3 500
Telephone expense	680		
Rent	24 600		
Stationery expense	500		
Vehicle	18 000		
Electricity	850		
Prepaid insurance expense	750		
Equipment repairs	1 240		
	210 800		210 800

ADJUSTMENTS REQUIRED:

1. One of the debtors has been declared bankrupt. The total amount of $700 owing by D. Crepit is to be written off.
2. Insurance paid in advance as at 30 September 2015—$150.
3. Interest owing on loan—$120.
4. The owner gave some colour prints to the local kindergarten for a fundraising auction and received some advertising during the event. The goods provided had a cost price of $500 and a selling price of $950. As yet, no entry had been made to record this event.
5. Depreciation of equipment—15% per annum on cost.

→

ISBN 978 1 4202 3058 1

6 Depreciation of vehicles—25% per annum on cost.

7 Physical stocktake as at 30 September: $42 900.

8 On 30 September 2015 the owner realised that a payment of $200 for wages was accidentally debited to advertising.

You are required to:

a Prepare an income statement, taking into account all adjustments required.

b Prepare a classified balance sheet as at 30 September 2015.

c State the double entry that results when the interest owing is paid on 3 October 2015.

[Exercise 14.13] The proprietor of One Stop Computers has supplied the following information relating to her business:

One Stop Computers: trial balance as at 30 June 2015

	$		$
Advertising	1 200	Accumulated depreciation—furniture	960
Cleaning expenses	1 060	Accumulated depreciation—shop fittings	1 760
Cost of sales	40 200	Bank	6 320
Debtors control	3 850	Capital—Spears	86 000
Drawings	4 900	GST clearing	4 000
Furniture	3 200	Interest revenue	560
Interest expense	6 200	Mortgage loan	70 000
Investment account	5 700	Sales revenue	99 400
Office expenses	3 140		
Premises	102 000		
Prepaid insurance expense	1 600		
Rates	2 600		
Salaries	34 240		
Shop fittings	8 800		
Stationery expense	580		
Stock control	48 900		
Telephone expense	830		
	269 000		269 000

ADJUSTMENTS REQUIRED:

1 Depreciation—office furniture 10% per annum on cost.

2 Depreciation—shop fittings 20% per annum on cost.

3 Insurance expired during period—$1 200.

4 An account for $100 for cleaning done during June 2015 has not yet been paid and is not included in the above accounts.

5 It has been discovered that $200 of advertising has been incorrectly debited to the interest expense account.

6 The physical stocktake conducted on 30 June 2015 showed total stock on hand of $49 200.

7 One debtor, who owes $600, has to be written off as irrecoverable.

You are required to:

a Prepare an income statement for the year ended 30 June 2015, showing clearly the gross and net profit earned by the business.

b Prepare a classified balance sheet as at 30 June 2015.

c Prepare the required entry in the cash payments journal on 28 July 2015 when $264 is paid in relation to cleaning expenses. This cheque included a GST payment of $24.

CASE STUDY

NIGELLA COOK is the owner of Cookie's Kitchen Products. She has prepared a trial balance of her general ledger accounts at the end of a year's trading, as shown below:

Cookie's Kitchen Products: trial balance as at 30 June 2015

	$		$
Advertising	2 280	Accumulated depreciation	
Bank	2 130	display equipment	1 460
Carriage inward	2 010	Accumulated depreciation	
Carriage outward	2 620	office furniture	480
Cleaning of shop	2 020	Bank loan	223 000
Cost of sales	58 200	Capital	194 560
Council rates	2 400	Cash sales	86 100
Debtors control	4 420	Creditors control	13 100
Discount expense	1 020	Credit sales	32 100
Display equipment	14 600	Discount revenue	1 200
Drawings	17 000	GST clearing	3 500
Electricity	1 420		
Interest expense	18 000		
Office expenses	1 500		
Office furniture	1 600		
Postage	1 030		
Premises	340 000		
Prepaid insurance expense	3 600		
Stock control	52 800		
Carry bags expense	1 920		
Telephone expenses	1 430		
Wages	23 500		
	555 500		555 500

ISBN 978 1 4202 3058 1

ADDITIONAL INFORMATION:

- The insurance premium was for 12 months coverage and was taken out on 1 August 2014.
- An account for $120 for electricity for the month of June has been received but not yet paid. It will be paid on 4 July 2015.
- A physical stocktake performed on 30 June 2015 was checked against the firm's stock cards. Discrepancies were found to exist on three different stock cards:

Item	Stock card balance	Stocktake
Digital scales	11 @ $28	30 on hand (selling price $59.95)
	25 @ $29	
Electric frypans	6 @ $68	14 on hand (selling price $139.50)
	10 @ $72	
3 litre saucepans	30 @ $24	31 on hand (selling price $45.00)

- It was discovered that the owner had withdrawn $640 from the business on 26 June. No entry has been made to account for this transaction.
- A review of the cheque book of the business has revealed that a payment of $40 made for postage on 2 June 2015 has been incorrectly recorded in the firm's cash payments journal. When it was paid, it was accidentally recorded as being a telephone account.
- The bank loan is repayable at the rate of $400 per week.
- Depreciation is required as follows: display equipment 20% on cost, office furniture 15% on cost.
- One of the firm's debtors, Con Spiracee, is to be written off as a bad debt. He owed $1 000.

a Prepare general journal entries for all adjustments required on 30 June 2015.

b Prepare closing entries in the general journal on 30 June 2015.

c Complete the following general ledger accounts, including all relevant entries to account for the stated information: prepaid insurance expense, insurance expense, accrued electricity, electricity expense, stock control.

d Complete the profit and loss summary account as it would appear in the general ledger.

e Prepare the first section of the income statement to determine the gross profit and the adjusted gross profit of the business for the year (the full report is not required).

f Prepare a balance sheet as at 30 June 2015.

g Explain your treatment of the insurance premium, with reference to one qualitative characteristic of accounting.

h Refer to the item regarding the withdrawal of cash by the owner. Justify your treatment of this item, with reference to one accounting principle.

ISBN 978 1 4202 3058 1

Unit 3 Practice exam

QUESTION 1 The business documents provided below relate to Doncaster Desks, owned by Michael Travers.

OFFICE DESIGNS
INVOICE NO. 2299
21 AUGUST 2015
CHARGE: DONCASTER DESKS

5 STUDENT DESKS @	$ 140	EACH
SUBTOTAL	$ 700	
GST	$ 70	
TOTAL OWING	$ 770	

DATE: 26/8/15
B/FWD: $1500
THIS CHQ: $300 + $30 GST: $330
PAYEE: FANCY FURNITURE
FOR: CASH PURCHASES

2385

DATE: 31/8/15
B/FWD: $1200
THIS CHQ: $490
(DISCOUNT GRANTED $10)
PAYEE: FRANKSTON FURNITURE
FOR: ON ACCOUNT

2386

FRANKSTON FURNITURE
INVOICE NO. 1218
26 AUGUST 2015
CHARGE: DONCASTER DESKS

20 STUDENT CHAIRS @	$ 20
SUBTOTAL	$ 400
GST	$ 40
TOTAL OWING	$ 440

1.1 Record the relevant information from the above documents in the special journals provided and total the journals for the month of August.

Cash payments journal

Date	Details	Chq. no.	Bank $	Disc. rev. $	Creditors $	Stock $	Sundries $	GST $
Aug 25	Subtotals		12 000	100	9 900	1 500	1 200	220
Aug 31	Totals							

ISBN 978 1 4202 3058 1

Purchases journal

Date	Creditor	Inv. no.	Stock control $	GST $	Creditors control $
Aug 20	Subtotals		9000	900	9900
Aug 31	Totals				

4 MARKS

1.2 Using the above journals for August, post the relevant information to the creditors control account, the stock control account and the GST clearing account.

Note: accounts do not have to be balanced at the end of the month

General ledger

Creditors control a/c

Date	Cross reference	$	Date	Cross reference	$
			Aug 1	Balance	8000

Stock control a/c

Date	Cross reference	$	Date	Cross reference	$
Aug 1	Balance	38700			

GST clearing a/c

Date	Cross reference	$	Date	Cross reference	$
			Aug 1	Balance	500

6 MARKS

1.3 Prepare the subsidiary ledger account for Frankston Furniture, given that the account had a balance of $800 as at 1 August. Post all relevant entries for August and balance the account at the end of the month.

Creditors subsidiary ledger

Creditor—Frankston Furniture a/c

Date	Cross reference	$	Date	Cross reference	$

4 MARKS

1.4 State two benefits of maintaining a subsidiary ledger, in conjunction with a control account in the general ledger.

First advantage

....

....

....

....

Second advantage

....

....

....

....

2 MARKS

QUESTION 2 Nick Kokinos is the owner of Brunswick Book Store. The general ledger of his business includes a Furniture account with a debit balance of $2 200. Kokinos believes that $2 200 is the amount he would receive if he sold the furniture now. However, his accountant has stated that this is not true.

2.1 State what the balance of the Furniture account does represent.

The balance represents

....

....

....

....

1 MARK

ISBN 978 1 4202 3058 1

QUESTION 3 J.T.'s Boutique, owned by Justine Troykovic, is a small business that specialises in women's fashions. Last week Troykovic took a dress from the stock on display and gave it to her sister as a present.

3.1 Complete the table below to show the effect of this transaction on the accounting equation of J.T.'s Boutique. Put a tick in the appropriate boxes.

	Increase	Decrease	No effect
Assets			
Liabilities			
Owner's equity			

3 MARKS

3.2 State and explain the accounting principle that supports the recording of the withdrawal of the dress.

....

....

....

....

1 MARK

QUESTION 4 On 30 May the owner of Caldwell Clothing took clothing from the business for personal use. The clothing had a selling price of $150 and a cost price of $70. On 31 May the owner closed off some accounts to the P&L summary account.

4.1 Record the transaction of 30 May in the general journal of Caldwell Clothing.

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit $	Credit $	Debit $	Credit $

3 MARKS

ISBN 978 1 4202 3058 1

4.2 Explain, with reference to a qualitative characteristic of accounting, why the owner closed off accounts on 31 May.

Explanation

....

....

....

....

....

....

....

....

2 MARKS

QUESTION 5 Paula Mason, the proprietor of Mason's Music, sold $3 000 worth of goods (plus GST of $300) to debtors during June. On 30 June her debtors owed her a total of $600, whereas at the start of the month they only owed $400. The business uses special journals for credit sales, credit purchases and all cash transactions.

5.1 State the source document that would be used by Mason to record the $3 000 of sales made during June.

5.2 State the name of the journal in which the $3 000 would be recorded.

5.3 Calculate the amount of cash received from debtors during June.

5.1 Source document:
5.2 Name of journal:

1 + 1 = 2 MARKS

5.3 Cash received $

2 MARKS

During June Mason paid wages of $400 per week. There were four pay periods during the month.

5.4 Prepare the general journal entry to close the wages account on 30 June (narration is not required).

ISBN 978 1 4202 3058 1

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit $	Credit $	Debit $	Credit $

2 MARKS

QUESTION 6 The following journal relates to Davey's Furniture Store, owned and operated by Elise Davey.

Sales journal

Date	Debtor	Inv. no.	Cost price $	Selling price $	GST $	Debtors control $
May 3	Painters Plus Pty Ltd		7 000	14 200	1 420	15 620
May 13	Carlton College		4 200	9 000	900	9 900
May 21	J.P. Harris		4 800	10 000	1 000	11 000
May 31	Totals		16 000	33 200	3 320	36 520

6.1 Post the above journal to the relevant accounts in the general ledger at the end of the month.

General ledger

.... a/c

Date	Cross reference	$	Date	Cross reference	$

.... a/c

Date	Cross reference	$	Date	Cross reference	$

ISBN 978 1 4202 3058 1

.... a/c

Date	Cross reference	$	Date	Cross reference	$

.... a/c

Date	Cross reference	$	Date	Cross reference	$

.... a/c

Date	Cross reference	$	Date	Cross reference	$

5 MARKS

After posting the journal to the general ledger, Davey has discovered that the invoice issued to Painters Plus was actually for $12 400, plus GST, and not $14 200, plus GST, as was recorded in the above journal.

6.2 Prepare the general journal entry required to correct the error identified by Davey. Narration is required.

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit $	Credit $	Debit $	Credit $

5 MARKS

ISBN 978 1 4202 3058 1

On 5 June Davey paid the electricity bill of $300 for her business using cash from her personal resources. The business has not reimbursed her for this payment.

6.3 Prepare the general journal entry to record this transaction (narration not required).

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit $	Credit $	Debit $	Credit $

2 MARKS

QUESTION 7 Camberwell Computers maintains a stock card for each type of product sold by the business. An extract of the stock card for the IMB Executive model has been prepared below.

Stock card: IMB Executive					**Supplier: IMB Electronics**					
Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Jun 14	Invoice 365	10	900	9 000				4 10	850 900	3 400 9 000

The following events have not yet been recorded by the owner in relation to the IMB Executive.

Jun 18 Credit sale of 6 computers to Metro High School. Invoice number 1324 was issued, showing 6 units sold at $1 600 each.
Jun 23 The owner withdrew one IMB Executive for personal use. Office memo no. 12 was completed to record this event.
Jun 30 A physical stocktake revealed that 6 IMB Executive computers were on hand (memo no. 13)

ISBN 978 1 4202 3058 1

7.1 Record the three events stated above in the stock card provided below.

Stock card: IMB Executive					Supplier: IMB Electronics					
Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Jun 14	Invoice 365	10	900	9 000				4 10	850 900	3 400 9 000

3 MARKS

7.2 Prepare the adjusting entry required in the general journal as a result of the physical stocktake conducted on 30 June (narration not required).

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit $	Credit $	Debit $	Credit $

2 MARKS

7.3 State two ways a stock gain can occur in a trading business.

First way

....

....

....

Second way

....

....

....

2 MARKS

ISBN 978 1 4202 3058 1

7.4 On July 4 the owner of Camberwell Computers donated a computer to the local primary school. The Principal of the school has decided to mention the business's name in the next parents' newsletter as a way of thanking the business. The computer usually sells for \$1 900 and has a cost price of \$1 050 (memo 14 was used to note this event). Prepare the general journal entry to record this event (narration required).

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit \$	Credit \$	Debit \$	Credit \$

3 MARKS

QUESTION 8 Caruso's Sports Store paid \$9 000 for a six-month advertising contract on 1 March 2015. The contract covered the months from March through to the end of August.

The reporting period of this business ends on 30 June each year.

8.1 Complete the following general ledger account with all relevant entries, including:
- the cash payment
- any necessary adjusting entries
- any necessary closing or balancing procedures.

General ledger

Prepaid advertising expense a/c

Date	Cross reference	\$	Date	Cross reference	\$

3 MARKS

8.2 Prepare the related closing entry for the above item in the general journal of Caruso's Sports Store (narration not required).

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit $	Credit $	Debit $	Credit $

3 MARKS

8.3 Explain why prepaid advertising expense should be reported as an asset in a balance sheet.

Explanation

....

....

....

....

....

2 MARKS

QUESTION 9 Vellucci's Imports purchased a vehicle on 1 April 2014 for $32 000. The firm had to pay a dealer's delivery fee of $1 500 and the first year's registration cost $600. The van was also insured on this date, at a cost of $900. Vellucci plans on using the van in the business for four years before selling it for about $12 500.

9.1 Prepare the adjusting entry in the general journal to account for depreciation on 30 June 2015.

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit $	Credit $	Debit $	Credit $

3 MARKS

ISBN 978 1 4202 3058 1

9.2 Show how the vehicle would be reported in the balance sheet as at 30 June 2016.

Non-current assets

....

....

....

....

....

3 MARKS

9.3 Explain why depreciation should be done on balance day, with reference to the appropriate qualitative characteristic of accounting.

Explanation

....

....

....

....

....

2 MARKS

QUESTION 10 The following information relates to the business trading as Tessie's Toy Store.

– Wages paid during the year ended 31 March 2015 $28 400
– Wages owing as at 31 March 2015: $340
– Wages paid on 3 April 2015: $580

10.1 Prepare the wages expense account, including all relevant information for the months of March and April 2015.

General ledger

Wages expense a/c

Date	Cross reference	$	Date	Cross reference	$

4 MARKS

10.2 State the accounts affected by the payment of $580 on 3 April 2015.

Accounts	Debit or credit	$

3 MARKS

QUESTION 11 Franz Furniture commenced business on 1 January 2015. The owner contributed a vehicle valued at $25 000, a computer valued at $5 000 and cash of $35 000. The transactions for January were:

Jan 3	Purchased stock on credit for $10 000—GST $1 000	Invoice 42324
5	Sold goods for $2 000 (cost price $1 000)—GST $200	Invoice AB101
8	Paid insurance $500—GST $50	Cheque 1001
10	Received cash from debtor $800	Receipt 2001
14	Took out a loan for $20 000	Receipt 2002
17	Sold goods for cash $4 000 (cost price $2 000)—GST $400	Receipt 2003
21	Paid wages $400	Cheque 1002
24	Sold goods on credit $3 000 (cost price $1 500)—GST $300	Invoice AB102
28	Cash drawings by owner $500	Cheque 1003
31	Paid loan repayment $450, including $50 interest	Cheque 1004

11.1 Prepare the opening general journal entry to commence Franz's business, including only the relevant information from that listed above (narration not required).

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit $	Credit $	Debit $	Credit $

3 MARKS

ISBN 978 1 4202 3058 1

11.2 Prepare an extract from the cash flow statement for January to show cash flows from operating activities, including the net result for the month.

Cash flows from operating activities

....

....

....

....

....

....

....

....

6 MARKS

11.3 Luke Franz, the owner of Franz Furniture, has stated, 'If my business makes a net profit, that means that cash flows from operating activities must be a positive result'. State two reasons why the owner is incorrect.

First reason

....

....

....

Second reason

....

....

....

2 MARKS

11.4 The insurance paid on 8 January, covers the six-month period from 8 January until 7 July 2015. The owner believes that not all of the $500 should be treated as an expense for the month of January.

Explain why the insurance paid should not all be treated as an expense in the month it was paid.

Explanation

....

....

....

....

2 MARKS

TOTAL MARKS 90

ISBN 978 1 4202 3058 1

UNIT 4

Control and analysis of business performance

Chapter 15

Accounting for sales returns and purchases returns

OBJECTIVES

At the completion of this chapter, you should be able to:

- explain the purpose of a credit note
- describe the circumstances when a credit note will be issued
- prepare general journal entries to record the return of goods to suppliers
- post entries for the return of goods to the general ledger
- prepare general journal entries to record the return of goods by customers
- post entries for sales returns to the general ledger
- explain why two double entries are required when recording sales returns under perpetual inventory
- record sales returns and purchases returns in stock cards.

ISBN 978 1 4202 3058 1

15.1 Credit notes for returns

A trading firm may both purchase and sell goods on credit. A purchase invoice is received from a supplier when goods are bought on credit. A sales invoice is issued to a customer when goods are provided on a credit basis. From time to time there may be circumstances where some of these invoiced goods are deemed to be unsatisfactory and are consequently sent back to the supplier. Goods may be deemed to be unsatisfactory because:

- they were the wrong size or specification
- they were the wrong brand name
- an incorrect colour or style was supplied
- the goods were delivered late and were no longer required
- the goods were damaged or faulty.

This may occur when goods are bought from a supplier or when goods are sold to a customer. In either situation, the goods may be replaced or a **credit note** may be issued. A credit note is a business document used to acknowledge that goods have been returned. An example of a credit note is shown in figure 15.1.

Figure 15.1 Credit note

WHOLESALE TRADING
123 POWER AVENUE BALWYN 3103

CREDIT NOTE NO. 3389
DATE: 10/7/15

CREDIT: ELSTERNWICK ELECTRICALS
898 NEPEAN HIGHWAY
ELSTERNWICK 3185

REASON: DAMAGED IN TRANSIT

Description	Qty	Unit price	Subtotal	GST	Total
Lead light touch lamps	4	$42.50	$170.00	$17.00	$187.00
Totals			$170.00	$17.00	$187.00

Total (excluding GST)	$170.00
Total GST	$17.00
Total credit allowed (including GST)	$187.00

APPROVED: KEN SPARKIE

WHOLESALE TRADING—FOR ALL THINGS ELECTRICAL

15.2 Purchases returns

In the credit note shown in figure 15.1, Elsternwick Electricals has returned damaged goods (a **purchases return**) to a supplier named Wholesale Trading. The effect of this document is that Elsternwick Electricals will debit the Creditors account of Wholesale Trading, thereby reducing the amount owed to the supplier. That is, the credit note reduces the debt of Elsternwick Electricals by $187. This is the amount that the supplier would have charged the business when the purchase invoice was originally issued for these goods. Note that, in addition to the cost

ISBN 978 1 4202 3058 1

price charged by the supplier, the GST charged on the credit purchase must also be recorded on the credit note. The following provides a neat summary of the two events as they would affect the general ledger. On the left is the double entry for the original credit purchase, with the return of the damaged goods shown on the right:

Credit purchase (invoice)	$	*Purchases return (credit note)*	$
Stock control	170 Dr	Creditors control	187 Dr
GST clearing	17 Dr	Stock control	170 Cr
Creditors control	187 Cr	GST clearing	17 Cr

The above summary shows the entries required when all of the goods purchased from a creditor are subsequently returned and a credit note granted. There may also be situations where only some of the goods are returned. That is, a business may purchase 10 items and only one or two of them have to be returned. In this case you should identify the cost price of the goods being returned, along with the relevant GST that was charged on such goods at the time of purchase.

As with all business documents, credit notes must be entered into a journal before being posted to general ledger accounts. The four special journals introduced in the first half of this text were specifically designed to cater for the following types of transactions:

- **cash receipts journal:** all receipts of cash
- **cash payments journal:** all payments of cash
- **credit purchases journal:** credit purchases of inventory
- **credit sales journal:** credit sales of inventory.

Clearly, a return of faulty goods does not fit into any of the abovementioned categories. Hopefully, such an event will not occur frequently. For this reason management may decide that a special journal for such events is not necessary. Under these circumstances, the general journal should be used to record returns or related allowances. Using the details of figure 15.1 as an example, the return of goods by Elsternwick Electricals would be recorded in their general journal as shown in figure 15.2.

Figure 15.2 General journal entry to record purchases returns

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Jul 10	Creditors control	187			
	Wholesale Trading			187	
	Stock control		170		
	GST clearing		17		
	Return of damaged goods to supplier (Credit note 3389)				

ISBN 978 1 4202 3058 1

It should be noted that a business using the perpetual inventory method must record all movements of stock via the stock control account. When the goods were first purchased from the wholesaler, the stock control account would be debited, with the credit entry being made to the creditor's account. If goods are returned, the opposite entry is made. The debit to the creditor's account reduces the liability of the firm, while the credit to stock control reduces the cost of stock on hand. This must occur, as the level of inventory has been decreased once the goods have been returned to the supplier. As usual, if Elsternwick Electricals uses a control account for its creditors, the general journal entry shown above takes into account the entries required in both the general ledger and subsidiary ledger.

To create a realistic situation, in the general ledger of Elsternwick Electricals the outstanding debt to Wholesale Trading as at 1 July was $3000 and the total owing to creditors was $20 000. Also, the balance of stock control on 1 July was $25 000. The posting of the return of damaged goods would therefore result in the ledger account entries shown in figure 15.3.

Figure 15.3 General ledger entries for a purchases return

Creditors control a/c

		$			$
Jul 31	Stock control/GST clearing	187	Jul 1	Balance	20 000

Stock control a/c

Jul 1	Balance	25 000	Jul 31	Creditors control	170

GST clearing a/c

			Jul 31	Creditors control	17

The creditor's account prepared above shows quite clearly the effect of the credit note received from the supplier. The obligation to the creditor has been reduced by the debit entry and therefore Elsternwick Electricals now owes $187 less to its suppliers. Similarly, the reduction in the inventory of the business is also quite evident. The credit entry to stock has reduced the stock on hand, as the goods are no longer in the possession of the firm. The credit entry to the GST clearing account cancels out the debit entry that would have been made to the GST account at the time of purchase. Of course, whatever is recorded in the creditors control account must also be recorded in the relevant subsidiary ledger account. The Wholesale Trading account is shown in figure 15.4, including the opening balance on 1 July.

Figure 15.4 Creditors subsidiary ledger account showing a purchases return

Wholesale trading a/c

		$			$
Jul 31	Stock control/GST clearing	187	July 1	Balance	3 400

15.3 Sales returns

In the previous example, a credit note was received by Elsternwick Electricals from their supplier. It should be kept in mind that credit notes can also be issued by Elsternwick Electricals to their debtors. Consider the following transactions between this business and one of its credit customers:

Aug 1	Sold goods on credit to Brimbank Primary School: 4 light fittings for $80 each, plus GST of $8 each
Aug 5	Brimbank Primary School returned one light fitting because it was the wrong size. The customer was allowed a full credit of $80 (plus GST of $8)

Note: Elsternwick Electricals applies a mark-up of 100% to all its inventory. Therefore, the cost of sales on 1 August would be 4 × $40 = $160. The return on 5 August has a cost price of $40.

As the original sale on 1 August was on credit, it would be recorded in the credit sales journal. When the return of goods occurs on 5 August, a credit note will be issued and the following general journal entry will be made to record the **sales returns**.

Figure 15.5 General journal entry to record a sales return

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Aug 5	Sales returns	80			
	GST clearing	8			
	Debtors control		88		
	Brimbank Primary School				88
	Stock control	40			
	Cost of sales		40		
	Credit approved for return of goods, wrong size supplied (Credit note no. 24)				

One important difference to note when a customer returns goods for credit is that two double entries are required. Under perpetual inventory two double entries are made when goods are sold: one for selling price and one to record the cost price. This is also the case when goods are returned, as in the above example. When the customer returned the light fittings because they were the wrong size, two events had to be recorded. First, the debtor's account had to be reduced by the amount that they were originally charged (in this example $80 + $8 GST = $88). This would result in a debit to the sales returns account, a debit to the GST clearing account and a credit entry to the debtors control account. There also had to be a corresponding credit to the relevant debtors subsidiary ledger account. The goods returned by the customer would also become part of the firm's inventory again. To record this, the cost price entry made when the goods were sold would have to be reversed. Therefore, stock control would be debited to increase the asset account and cost of sales would be credited. This credit entry would negate

ISBN 978 1 4202 3058 1

the debit to cost of sales that would have been recorded when the sale took place. To clarify these two events, the following summary has been prepared:

Credit sale of goods			*Sales returned by a debtor*		
Debtors control	Dr		Sales returns	Dr	
Sales		Cr	GST clearing	Dr	
GST clearing (with selling price)		Cr	Debtors control (with selling price)		Cr
and			and		
Cost of sales	Dr		Stock control	Dr	
Stock control (with cost price)		Cr	Cost of sales (with cost price)		Cr

Using the example of Elsternwick Electricals and Southern Primary School, the entries in the general ledger would appear as shown in figure 15.6 (keeping in mind that four units were sold on credit, but only one was returned).

Figure 15.6 General ledger entries for a sales return

Stock control a/c

		$			$
Aug 1	Balance	xxx	Aug 31	Cost of sales	160
Aug 31	Cost of sales	40			

Cost of sales a/c

Aug 31	Stock control	160	Aug 31	Stock control	40

Debtors control a/c

Aug 31	Sales/GST clearing	352	Aug 31	Sales returns/GST clearing	88

Credit sales a/c

			Aug 31	Debtors control	320

Sales returns a/c

Aug 31	Debtors control	80			

GST clearing a/c

Aug 31	Debtors control	8	Aug 31	Debtors control	32

It is important to ensure that the correct amount of GST is recorded on all sales returns. When the four units were sold at $80 each, the GST charged to the debtor would have been $32 (that is, $8 per unit × 4 = $32 GST). When the return of one item occurred, the related GST was the $8 per unit that was originally charged to the debtor.

Note also that the selling price of the goods returned ($80) was debited to a sales returns account in the general ledger. This entry could be debited to the sales account, thereby adjusting sales to equal the revenue earned after returns have been recorded. However, the preferred

ISBN 978 1 4202 3058 1

treatment is to create a separate account for sales returns. This can then be deducted from sales revenue in the income statement. This provides some additional information for management in relation to customer satisfaction. If only a net sales figure was reported at the end of the period, the income statement would not show any information about the level of returns by customers. By having a separate account for sales returns, this additional information can also be reported at the end of the period. Consider the example below:

Income statement (extract)

Revenue	$	$
Sales	100 000	
less sales returns	5 000	95 000

The reporting of sales returns in this way allows the reader of the report to see the full picture in terms of the firm's sales performance. Although $100 000 of goods was sold during the year, $5 000 was actually returned by customers. This can be expressed as a percentage to gauge the level of customer satisfaction. During this reporting period, 5% of all sales ($5 000/$100 000) was returned. If this percentage decreases over time, it may be seen as an indicator that customer satisfaction has improved. Similarly, if it increases it indicates that more customers were not as happy with the business.

15.4 Recording returns in stock cards

As returns of stock affect the amount of inventory held by a business, it is important to realise that returns must also be recorded in the stock cards maintained by the firm. Returns of stock to a supplier have the effect of decreasing the stock on hand, whereas sales returns will cause an increase in the stock held at a given date. To find out how to record returns, the two types of transactions can simply be related to the headings used in stock cards. As returns to suppliers mean that goods are leaving the business, purchases returns will be recorded in the OUT column. If debtors return goods to a business, this means that goods are coming back into the firm and therefore should be recorded in the IN column. The other method to determine the correct column to be used for returns is to show all debits to stock control in the IN column of a stock card, whereas credits to the stock control account can be traced to the entries in the OUT column. The summary in figure 15.7 has been prepared to show the various transactions covered so far in this text. The two entries for returns of stock are labelled 4 and 8 (sales returns and purchases returns).

Figure 15.7 Summary of stock transactions, including the impact of returns

The entries on the debit side relate to the IN column of the stock cards maintained by the business.

Stock control a/c

1	Balance	6	Cost of sales
2	Cash at bank	7	Cost of sales
3	Creditors control	8	Creditors control
4	Cost of sales	9	Drawings
5	Stock gain	10	Stock loss
		11	Advertising
		12	Balance

The credit entries in stock control relate to the OUT column of the stock cards maintained by the business.

Each of the numbered entries is described briefly below:

1 The opening balance of stock will be on the debit side because it is an asset account.
2 *Cash at bank* records the cash purchases of stock made during the period.
3 *Creditors control* is the cross reference for the total credit purchases made during the period.
4 *Cost of sales* is the cost price of sales returns approved for the period. As goods are coming back into the business, stock increases and therefore a debit entry is made.
5 *Stock gain:* if the physical stocktake reveals that a stock gain has occurred, a debit is made to Stock Control to adjust the account up to the correct amount.
6 and **7** *Cost of sales:* if a business sells on credit in addition to their cash sales, there may be two entries named 'cost of sales'. These should always be kept separate, as one comes from the cash receipts journal and the other from the credit sales journal.
8 *Creditors control* is used to record the returns of stock to creditors. As stock is leaving the business and being returned to the creditors, stock control must be credited.
9 *Drawings* represents withdrawals of stock by the proprietor.
10 *Advertising* represents stock given to others for advertising purposes.
11 *Stock loss* is a balance day adjustment for losses revealed by the stocktake.
12 *Balance* is the amount of stock on hand at the end of the period.

Recording purchases returns in stock cards

Having established how sales returns and purchases returns affect the stock control account, the final question in relation to returns is the price to be recorded in a stock card when a return occurs. Consider the stock card in figure 15.8.

Figure 15.8 Stock card showing a credit purchase

STOCK ITEM: CLASSIC CHAIRS
VALUATION METHOD: FIFO

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Aug 1	Balance							5	12	60
2	Inv. 78	10	13	130				5 10	12 13	60 130
3	Rec. 213				2	12	24	3 10	12 13	36 130

The stock card in figure 15.8 includes an entry for a credit purchase on 2 August, when 10 chairs were purchased (Invoice 78). What should happen if, on 3 August, two of these chairs are found to be damaged and are to be returned to the supplier? The creditor has approved the return and has issued Credit note no. 12 for $26 (2 × $13). It is important to note that purchases returns have absolutely nothing to do with the FIFO assumption. This is because the supplier will always determine what credit will be allowed when goods are returned. Therefore, the actual value of any credit allowed will be identified by the supplier and will be evidenced by the credit note issued. The entry required has been prepared in the stock card in figure 15.9.

Figure 15.9 Stock card showing a purchases return

STOCK ITEM: CLASSIC CHAIRS
VALUATION METHOD: FIFO

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Aug 1	Balance							5	12	60
2	Inv. 78	10	13	130				5 10	12 13	60 130
3	Rec. 213				2	12	24	3 10	12 13	36 130
3	Credit note 12				2	13	26	3 8	12 13	36 104

You should always ensure that you record a purchases return at the value determined by the supplier's credit note. Then it is simply a matter of adjusting the BALANCE column as required. Once the stock card has been adjusted, then the FIFO assumption can be resumed to determine the cost of sales when goods are sold.

Recording sales returns in stock cards

The recording of sales returns is totally different from that of purchases returns. The above example showed how the dollar value of a purchases return is determined by the supplier. However, when goods are sold, the FIFO assumption is used to determine the cost of sales to be recorded. This is an internal decision by management and this dollar value is not included on any source document. When goods are sold to a debtor, the selling price is stated on the sales invoice. The stock card is used to determine the cost price of the goods sold. The question now becomes: what is the cost price of a sales return? Consider the stock card in figure 15.10, which includes a credit sale of six office chairs for $65 each on 4 September.

Figure 15.10 Stock card showing a credit sale

STOCK ITEM: OFFICE CHAIRS
VALUATION METHOD: FIFO

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Sep 1	Balance							4 10	30 32	120 320
4	Inv. 23				4 2	30 32	120 64	8	32	256

ISBN 978 1 4202 3058 1

This business sold six chairs on 4 September and Invoice 23 would show the selling price of $65 per chair. The FIFO assumption has been applied in the stock card and has determined that four chairs had a cost price of $30, with the other two chairs being allocated the cost of $32 per chair. The problem arises when some, but not all, of these chairs are returned. For example, on 5 September one chair was returned and a full credit was allowed to the debtor. Credit note no. 5 has been issued, but this would only show the credit allowed to the debtor, which would be the selling price of $65. The problem is in relation to the cost price and how to adjust the stock card in figure 15.10. To sum up the correct approach, you should simply reverse the FIFO approach in the stock card. That is, start at the last stock issued and work your way backwards through the stock card. Therefore, if one chair was returned, the entry would be as in figure 15.11.

Figure 15.11 Stock card showing a sales return

STOCK ITEM: OFFICE CHAIRS
VALUATION METHOD: FIFO

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Sep 1	Balance							4 10	30 32	120 320
4	Inv. 23				4 2	30 32	120 64	8	32	256
5	Credit note 5	1	32	32				9	32	288

As goods are coming back into the business, the required entry is made in the IN column. The cost price chosen was the last one issued in the OUT column on 4 September (that is, $32). This returns the last unit issued into the stock card, with the balance returning to 9 units on hand valued at $32 each. If two chairs were returned on 5 September, rather than just one, the same approach can be used. Simply rebuild the stock card as if the goods had never been sold. Therefore, if two were returned, the business would again have the 10 units on hand at $32 each. The relevant entry has been prepared in figure 15.12.

Figure 15.12 Stock card showing a sales return

STOCK ITEM: OFFICE CHAIRS
VALUATION METHOD: FIFO

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Sep 1	Balance							4 10	30 32	120 320
4	Inv. 23				4 2	30 32	120 64	8	32	256
5	Credit note 5	2	32	64				10	32	320

ISBN 978 1 4202 3058 1

Finally, if this business accepted a return of three chairs on 5 September, it is important to ensure that the third chair is not recorded at $32. The balance of the stock card on 1 September showed that four chairs cost $30 and 10 units cost $32. If a return of multiple units occurs, the balance of the stock card should be resurrected, but you must not create more units than that shown in the stock card on a previous date. Once the 10 @ $32 have been returned, the assumption is then that the other goods returned must be from the $30 stock. Therefore, if three chairs were returned the stock card would be adjusted as shown in figure 15.13.

Figure 15.13 Stock card showing a sales return

STOCK ITEM: OFFICE CHAIRS
VALUATION METHOD: FIFO

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Sep 1	Balance							4 10	30 32	120 320
4	Inv. 23				4 2	30 32	120 64	8	32	256
5	Credit note 5	1 2	30 32	30 64				1 10	30 32	30 320

If a sales return involves multiple cost prices, always make sure that the cost prices are returned to the stock card in their original order. Note from figure 15.13 that the business now has one chair with a cost price of $30, while the other chairs all have a cost of $32. When the next sale is made and FIFO is applied once again, the first cost price to be used again is $30. The major difference between a sales return and a purchases return lies in the application of the FIFO assumption. If a return of purchases occurs, the creditor determines the credit allowed. This is because the creditor also decided what price would be charged when the invoice was issued. However, when a sale is made and FIFO is applied, a business does not really know the actual cost price of the item being sold. As FIFO simply involves an assumption about cost prices, when a return of a sale occurs the cost price entry in a stock card is also simply an assumption. Therefore, when a sale is made, FIFO assumes the first goods bought are the first goods sold. When a sales return occurs, work backwards through the FIFO assumption and resurrect the stock card as if the sale never occurred. This will help ensure that FIFO has been applied properly at all times.

› GLOSSARY OF TERMS

credit note a source document used to evidence the return of goods because they were damaged or were the wrong colour, size or brand.

purchases returns the return of goods by a business to its supplier (a creditor).

sales returns the return of goods by a customer (a debtor) to a business.

ISBN 978 1 4202 3058 1

Summary questions

1. Explain the purpose of a credit note.
2. State four different reasons why a credit note may be issued.
3. State the double entry required when a credit note is received from a supplier of inventory.
4. Explain why two double entries are required when a credit note is issued to a debtor by a trading firm using perpetual inventory.
5. State the two double entries required in the circumstances outlined in question **4** above.
6. When goods are returned by customers, a debit could be made to sales or to sales returns. Explain why the use of a sales returns account is preferred.
7. Should a business owner be concerned if she has issued many credit notes in one reporting period? Explain your answer fully.
8. How is the value of a purchases return determined? Explain your answer fully.
9. How is the cost price of a sales return determined by a business that applies the FIFO assumption of stock flow?
10. The cost price of a sales return is not shown on a source document. Do you agree with this statement? Explain fully.

Practical exercises

[Exercise 15.1] The owner of Teddy's Toy Store was issued with the following document:

WHOLESALE TOY COMPANY
199 BARBIE ROAD
KENSVILLE 5025

NO. 231
DATE: 28/6/2015

CREDIT: TEDDY'S TOY STORE
REASON: INCORRECT COLOUR

Description	Qty	Unit price	Subtotal	GST	Total
Builder Blocks	10	$12.00	$120.00	$12.00	$132.00

Total (excluding GST)	$120.00
Total GST	$12.00
Total credit approved (including GST)	$132.00

a. State the name of the above document.
b. State the name of the business that issued this document.
c. Explain the effect of the above document on the accounting equation of Teddy's Toy Store.

ISBN 978 1 4202 3058 1

[Exercise 15.2] The following document was in the possession of Helen Betson, the owner of Betson's Wholesale Books, who applies a mark-up of 100% to all stock sold.

BETSON'S WHOLESALE BOOKS
385 WURUNJERI DRIVE
DOCKLANDS 3099

NO. 17

DATE: 4/7/15

CREDIT: THE CORNER BOOKSTORE
12 ELIZABETH STREET
MELBOURNE 3000

REASON: DAMAGED

Description	Qty	Unit price	Subtotal	GST	Total
Guinness Book of Records 2015 edition	6	$75.00	$450.00	$45.00	$495.00
Totals			$450.00	$45.00	$495.00

Total (excluding GST)	$450.00
Total GST	$45.00
Total credit approved (including GST)	$495.00

a State the name of the above document.

b State the name of the business that issued this document.

c Describe the transaction evidenced by this document.

d State the double entry that should result from the issuing of this document in the general ledger of Betson's Wholesale Books.

e State the double entry that would be recorded in the books of The Corner Bookstore as a result of the above document.

[Exercise 15.3] On 1 July 2015 Azzopardi's Auto Spares purchased stock from Chrysler Australia on credit for $2000 plus GST of $200. Some of the goods were the wrong specification and Azzopardi returned them to Chrysler on 3 July 2015. Credit note no. 65 was sent to his business. These goods originally cost Azzopardi $150 plus GST of $15. He intended selling these items for $290 plus GST of $29.

a Prepare the general journal entry to record the return of goods by Azzopardi on 3 July 2015.

b Prepare the subsidiary account for Chrysler Australia showing all entries for July.

c State the balance owing to Chrysler Australia as at 31 July 2015.

[Exercise 15.4] Glynn's Giftware sold goods on credit to Zaita & Zaita, CPAs for $600 plus $60 GST. This occurred on 12 July 2015. On 13 July Zaita contacted Glynn to complain that three items had marks on them and a credit had been requested. Glynn issued Credit note no. 241 to Zaita, stipulating that a credit of $150 had been approved, along with a credit for GST of $15. The cost price of the goods returned was $65.

ISBN 978 1 4202 3058 1

a Prepare the general journal entry to record the details required as a result of Credit note no. 241.

b Prepare the Zaita & Zaita account in the debtors subsidiary ledger of Glynn's Giftware.

[Exercise 15.5]

The following events were reported by the management of Ahmed's Auto Parts during July 2015:

Jul 15	Spare parts were bought from Auto Spares on credit for $480 plus GST of $48 (Invoice no. 2175)
28	Faulty parts costing $80 plus GST of $8 were returned to Auto Spares (Credit note 127)
30	Statement of account received from Auto Spares with a balance of $440
31	Sent a cheque to Auto Spares in full settlement of account

a For each of the four items listed above, state the journal you would usually use to record them.

b Prepare the general journal entries for any of the relevant items from the above list.

c Prepare the subsidiary ledger account for the creditor named Auto Spares, showing all transactions during July.

[Exercise 15.6]

The following transactions occurred between Encore Music Store and one of its credit customers, Kevin Kelly. The owner of the music shop uses control accounts for both debtors and creditors.

Jul 3	Credit sale of musical instruments $4 200 plus GST of $420 (cost price $2 150)
6	One guitar was returned as it was damaged (selling price $1 200, GST $120, cost price $500) (Credit note 92)
9	Credit sale of musical equipment $2 700 plus GST of $270 (cost price $1 230)
15	Kelly made a payment on his account: $500
31	Legal advice was received from Kelly's solicitor advising Encore Music that its client has been declared bankrupt. All creditors of Kelly will be paid 35 cents in the dollar (Memo 47)

a Using a four-column general journal, prepare the entries required on 6 July and 31 July.

b Prepare the Kevin Kelly subsidiary account, showing all entries for the month of July 2015.

ISBN 978 1 4202 3058 1

[Exercise 15.7]

The following details were provided by the owner of Hawthorn Sports Store:

Balance of stock control as at 1 August 2015: $32 900
Balance of creditors control as at 1 August 2015: $4 300
Credit purchases for August: $5 400 plus GST of $540
Cash sales for August: selling price $9 800 plus GST of $980; cost price $4 500
During August damaged goods costing $350 were returned to the supplier, Ace Sports (GST on returned goods $35) (Credit note 128)

a Prepare the general journal entry to record the last item from the list above.

b Prepare the stock control account and the creditors control account, showing all transactions for August 2015.

c Apart from goods being damaged, state two other reasons why a firm may return goods to a supplier.

[Exercise 15.8]

A business had stock on hand of $40 000 on 1 September 2015. The balance of debtors control as at 1 September 2015 was $4 000. The following events took place during September:

Sep	4	Sold goods on credit to G. Wood for $500 plus GST of $50 (cost price $240)
	6	Wood returned goods that were sold for $50 plus GST of $5 (cost price $20) and was granted a full credit (Credit note 9)
	12	Sold goods on credit to G. Wood for $400 plus GST of $40 (cost price $200)
	13	Wood was issued a credit note for goods returned: selling price $30, GST $3, cost price $15 (Credit note 12)
	22	A cheque was received from G. Wood to settle his account

a Prepare the general journal entries required on 6 September and 13 September.

b Prepare the following general ledger accounts: stock control, cost of sales, sales and sales returns, assuming the transactions listed above were the only events for the month of September.

c Prepare the debtors subsidiary ledger account for G. Wood, showing all entries for the month of September.

ISBN 978 1 4202 3058 1

[Exercise 15.9] The management of Fitzroy Furniture has provided the following information:

Balances as at 1 October 2015:	Stock control	$46 200
	Debtors control	$8 400
	Creditors control	$7 300

Credit purchases during October: $7 200 plus GST of $720

Cash purchases during October: $2 100 plus GST of $210

Cash sales for October: selling price $12 400, GST $1 240, cost price $6 600

Credit sales for October: selling price $5 460, GST $546, cost price $2 560

During October damaged goods costing $890 were returned to the supplier, Fussy Furniture (GST $89) (Credit note 104)

During October debtors C. Kramer returned unsatisfactory goods that were originally sold for $680 plus GST of $68 (cost price $330) (Credit note 87)

a Prepare the general journal entry to record the last two items from the list above.

b Prepare the following general ledger accounts: stock control, cost of sales, creditors control, debtors control, sales, sales returns and GST clearing. Show all transactions for October 2015.

[Exercise 15.10] The owner of Phelan's Pots and Pans has just received a delivery from Housewares Incorporated and has noticed that two of the saucepans delivered have scratches on them. The invoice that came with the goods on 12 August 2015 contained the following details:

Invoice no. 612	10 units—25 cm saucepans @ $16.00
	Plus GST 10 @ $1.60

Housewares Incorporated has agreed to a full credit and issued Credit note no. 33 on 13 August for two saucepans. On 11 August 2015, Phelan already had four of these saucepans in stock, at a cost price of $15 per unit.

a Prepare the general journal entry to record the return of goods on 13 August 2015.

b In the stock card for the 25 cm saucepan, prepare all relevant entries for August, including the opening balance, the purchase and the return of two units to the supplier.

ISBN 978 1 4202 3058 1

[Exercise 15.11] Holding's Hardware Store maintains a stock card for every product sold by the business. The following extract comes from one of their stock cards:

STOCK ITEM: PROLINE ELECTRIC DRILLS
VALUATION METHOD: FIFO

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Jul 1	Balance							4	25	100
3	Inv. 731	10	26	260				4 10	25 26	100 260
4	Rec. 212				2	25	50	2 10	25 26	50 260

On 5 July the owner of the business found that three of the drills delivered on 3 July were not Proline drills and were in fact an inferior brand. The supplier, Wholesale Tools, explained that they had run out of Proline drills and substituted an alternative product. Steve Holding, the owner of Holding's Hardware, was not happy with this decision and requested full credit for these three items. The supplier agreed to this and on 6 July they issued Credit note no. B72 for the three drills.

a Prepare the general journal entry to record the purchases return on 6 July. (Hint: don't forget the 10% GST.)

b Enter the details of Credit note no. B72 in the stock card for the Proline drills.

c Prepare the creditors subsidiary ledger account for Wholesale Tools, showing both the purchase and purchases returns entries.

[Exercise 15.12] The following details relate to the Kandy Bar Stool, one of the products sold by Footscray Furniture Store.

Balance	1 July	3 @ $28 20 @ $27
Sales during July	5 July	10 @ $52, plus GST of $5.20 (Rec. 181)
	14 July	8 @ $52, plus GST of $5.20 (Rec. 185)
	25 July	10 @ $53, plus GST of $5.30 (Rec. 192)
Purchases during July	17 July	20 @ $28, plus GST of $2.80 (Inv. 711)
Purchases returns on 19 July		3 @ $28, plus GST of $2.80 (CN 88)
Physical stocktake on 31 July		11 units on hand (Memo 312)

a Prepare all entries in the stock card for the Kandy Bar Stool for the month of July, using the FIFO assumption of stock flow.

b Prepare any relevant general journal entries for the events that took place on 19 and 31 July.

ISBN 978 1 4202 3058 1

c Complete the subsidiary account for Funky Furniture, the supplier of the Kandy Bar Stool, given that Footscray Furniture Store owed this supplier $400 on 1 July. Balance the account at the end of the month.

d Explain the role of the FIFO assumption in relation to determining the cost price of purchases returns.

[Exercise 15.13] Consider the following stock card:

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Sep 1	Balance							5 15	35 38	175 570
5	Inv. 73				5 2	35 38	175 76	13	38	494

The debtor (I. Whinge) who purchased the seven items on 5 September is not satisfied with one of them and has been approved for a credit of $70 plus GST of $7 (Credit note 55, issued 6 September).

a Prepare the general journal entry for the sales return on 6 September.

b Justify the dollar values used in your answer to part **a** above and explain the source of each of the two dollar values.

c Redraft your journal entry for 6 September if I. Whinge returned:

i two items rather than one

ii three items rather than one.

d Complete the entry in the stock card for a sales return by I. Whinge of three items on 6 September.

[Exercise 15.14] The manager of Sunshine Stationery Supplies provided the following information in relation to one of his stock items:

Balance as at 15 July	5 @ $6 25 @ $7
Credit sale on 16 July to B. Goode (Inv. 54)	8 units @ $12 plus GST
Sales return on 17 July (Credit note 19)	2 units: credit allowed $24 plus GST

a Prepare entries in the stock card, showing the balance on 15 July, the sale on 16 July and the return on 17 July.

b Justify the cost price that you have applied to the return on 17 July.

c Using an appropriately designed general journal, prepare the entry required on 17 July.

[Exercise 15.15] Ian Weir is the proprietor of Weir's Watchworks and he uses the perpetual inventory system and maintains stock cards under the FIFO method of cost allocation. The following information comes from one of these stock cards:

STOCK ITEM: SANDGLASS SPORTS WATCH
VALUATION METHOD: FIFO

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Aug 1	Balance							2	19	38
3	Inv. 329	8	20	160				2 8	19 20	38 160
4	Inv. A92				2 1	19 20	38 20	7	20	140

On 6 August one of the watches sold on 4 August was returned by the debtor, T. Lockery. The watch had a scratch on the face and Lockery requested that her account be credited for the returned item. Weir agreed to this and on 6 August issued Credit note no. 812 for $40, plus GST of $4.00.

a Prepare the general journal entry to record the sales return on 6 August.

b Enter the details of the sales return in the stock card for the Sandglass Sports watch.

c Prepare the debtors subsidiary ledger account for T. Lockery, showing both the sales and sales returns entries. (Note: all three watches were sold for $40, plus GST of $4.) Balance the subsidiary account as at 6 August.

[Exercise 15.16] The following details relate to the Digitor Printer, one of the range of printers stocked by Eltham Electronics.

Balance 1 August 4 @ $80
6 @ $85

Sales during August
4 August Credit sale to Eltham College—
5 printers @ $150, plus GST of $15 (Invoice 435)
14 August Credit sale to Jane Morcom—accountant
6 printers @ $150, plus GST of $15 (Invoice 439)

Sales return during August
15 August Returned by J. Morcom,
1 printer @ $150, plus GST of $15 (Credit note 80)

Purchases during August
10 August Credit purchase from Ace Electronics
10 @ $90 plus GST of $9 (Invoice BG43)

Purchases returns during August
12 August Returned to Ace Electronics
1 @ $90, plus GST of $9 (Credit note 19)

Physical stocktake on 31 August: 8 printers on hand (Memo 56)

ISBN 978 1 4202 3058 1

a Prepare all entries in the stock card for the Digitor Printer for the month of August, using the FIFO assumption of stock flow. (Hint: make sure you record all entries in chronological order.)

b Prepare the relevant general journal entries for the transactions of 12 August, 15 August and any adjustment necessary on 31 August.

c Complete the creditors subsidiary account for Ace Electronics and the debtors subsidiary ledger for Jane Morcom—accountant, showing all entries for August.

ISBN 978 1 4202 3058 1

Chapter 16

The reducing balance method of depreciation

OBJECTIVES

At the completion of this chapter, you should be able to:

- describe the reducing balance method of depreciation
- explain why the reducing balance method of depreciation may be used for some assets
- compare the straight line and reducing balance methods
- prepare a graph showing the differences between the two methods of depreciation
- explain the effect on accounting reports a change in depreciation method may cause
- justify depreciation methods for a variety of assets
- explain the role played by accounting principles and the qualitative characteristics of accounting in relation to changing depreciation methods

ISBN 978 1 4202 3058 1

16.1 The need for an alternative method of depreciation

Depreciation is the allocation of a cost of a non-current asset over its useful working life. The allocation of depreciation as an expense is in line with the demands of both **relevance** and the **reporting period principle**, as it helps determine an accurate profit by matching all revenues earned with all expenses incurred. Depreciation is an expense which should be matched against the revenue actually produced by the asset being depreciated.

Some assets earn a constant amount of revenue throughout their lives, regardless of how old or new they are. Other assets tend to be very efficient when they are new and therefore produce most of their revenue in their first years of use. As they get older, some assets tend to become less efficient and do not produce as much revenue as they did when they were first purchased. A delivery vehicle is an example of such an asset. As the vehicle ages, so too will its revenue earning capabilities. An old vehicle is more likely to break down, more likely to spend time off the road for repairs and therefore less likely to be earning as much revenue for the business. It is logical therefore to allocate less depreciation when the asset is likely to be producing less revenue for the business. This appears to be in line with the demands of accrual accounting, as it strives to determine an accurate profit for the reporting period. That is, as a general rule, when an asset is likely to generate more revenue it should have more of its cost allocated as an expense. When its revenue earning capacity diminishes, so too should the amount of depreciation being written off as an expense for the period.

However, with an asset that has a constant revenue earning capacity over its useful life, the amount of depreciation being allocated should also be constant. The straight-line method of depreciation follows this general principle. Shop fittings, display equipment and office furniture are all similar assets in terms of producing revenue. Such assets are just as efficient in helping a business earn revenue in the first year as they will be in the last year of their useful lives. This chapter will examine the different nature of various assets and the reducing balance method of depreciation will be put forward as an alternative to the straight line method.

16.2 The straight-line method of depreciation

The **straight-line method** of depreciation allocates the same amount of cost each reporting period. It is also known as the fixed instalment method because the amount of depreciation per period is fixed, regardless of whether the asset is in its first year of use or its final year. Although the straight-line method was introduced in Chapter 13, it is important to revisit it at this stage to allow a full comparison of the two depreciation methods covered in this course. The straight-line method is the simplest one to calculate.

Consider the following details which relate to a vehicle bought by bought by Sindoni's Supermarket on 1 July 2015:

Purchase price of van:	$32 000
Estimated useful life:	4 years
Estimated residual (scrap) value:	$12 800

The formula to calculate depreciation under the straight-line method is:

$$\text{Depreciation expense} = \frac{\text{Cost} - \text{Scrap}}{\text{Useful life}}$$

Using the details of the vehicle purchased by Sindoni's, the equation becomes:

$$\text{Depreciation expense} = \frac{\$32\,000 - \$12\,800}{4 \text{ years}}$$

$$= \$4\,800 \text{ per year}$$

This calculation indicates that \$4800 of the cost of the vehicle will be written off as depreciation in each of the four years the car is used in the business. Over the four years, a total of \$19 200 will be written off, leaving only the expected scrap value of \$12 800 (that is, \$32 000 – \$19 200 = \$12 800). The depreciation expense can also be expressed as a percentage rate per annum. In this case, the depreciation rate is calculated as follows:

$$\text{Depreciation rate per annum} = \frac{\$4\,800}{\$32\,000}$$

$$= 0.15 \text{ or } 15\%$$

This percentage rate indicates that 15% of the cost of the asset is to be written off each year throughout the expected life of the asset. That is, the vehicle is depreciated at the rate of 15% per annum if the straight-line method of depreciation is applied to this vehicle.

16.3 The reducing balance method of depreciation

The feature of the straight-line method of depreciation is that the amount of depreciation expense allocated remains the same each reporting period, no matter the age of the asset. However, some assets tend to be much more efficient in their early years. This occurs because a new asset does not usually break down very often and maintenance should be at a minimum level. Thus a new asset is usually at a peak in terms of revenue earning ability. As an asset gets older, there is a greater likelihood of it being out of operation for periods of time when maintenance is required. An older asset is therefore less likely to earn as much revenue as a new one. In line with the demands of the reporting period, and in order to comply with relevance, it is important that revenue earned in a particular period is matched with the expenses incurred over that same time period. If an asset earns more revenue in a particular year, it is therefore logical to allocate a greater amount of depreciation in that year. The **reducing balance method** of depreciation (also known as the diminishing balance method) follows the general principle that an asset produces more revenue in its early life and less in its later years. This is in contrast to the straight-line method, which allocates a fixed amount each year. If an asset is expected to earn more in a particular period, relevance demands that more depreciation should be allocated. This is the underlying reason behind the use of the reducing balance method.

The formula to calculate the depreciation expense under the reducing balance method is as follows:

$$\text{Depreciation percentage rate} = 100\left(1 - \sqrt[n]{\frac{s}{c}}\right)$$

where n = estimated useful life (expressed as a number of years)
s = estimated scrap value (or residual value)
c = the cost of the asset

ISBN 978 1 4202 3058 1

Note: this formula has been provided for those students who are mathematically minded and may be interested in how the exact rate is determined under the reducing balance method. However, VCE Accounting students are not usually required to use this formula to determine the exact rate. Usually it is simply computed at 1.5 times the rate used under the straight-line method (see below).

The details of the example used to demonstrate the straight-line method have been repeated below. They relate to the vehicle purchased by Sindoni's Supermarket.

Purchase price of van (1/7/15)	$32 000
Estimated useful life:	4 years
Estimated residual (scrap) value:	$12 800

Putting the details of the vehicle into the formula for the reducing balance method gives the following result:

$$\text{Depreciation percentage rate} = 100\left(1 - \sqrt[4]{\frac{\$12\,800}{\$32\,000}}\right)$$

$$= 100\left(1 - \sqrt[4]{0.4}\right)$$

$$= 100\,(1 - 0.7953)$$

$$= 20.47\%$$

Once the percentage rate of depreciation has been calculated, this rate is then applied to the **carrying value** of the asset at the end of each reporting period. Note that the reducing balance method does not use the scrap value (residual value) of an asset in the yearly calculation of depreciation. The residual value is considered in the formula to determine the annual percentage rate, but then the rate is simply applied to reducing carrying value of the asset over its useful life. This is markedly different to the calculation of annual depreciation under the straight-line method, where the residual value is a vital factor in determining the expense to be allocated; that is, (cost – scrap value) / useful life. The table in figure 16.1 has been prepared to show the depreciation calculation for each year under the reducing balance method.

Figure 16.1 Calculation of depreciation using the reducing balance method

Year ended	Depreciation expense	Accumulated depreciation	Carrying value
30/6/2016	20.47% of $32 000 = $6 550	$6 550	$32 000 – $6 550 = $25 450
30/6/2017	20.47% of $25 450 = $5 210	$6 550 + $5 210 = $11 760	$32 000 – $11 760 = $20 240
30/6/2018	20.47% of $20 240 = $4 143	$11 760 + $4 143 = $15 903	$32 000 – $15 903 = $16 097
30/6/2019	20.47% of $16 097 = $3 297*	$15 903 + $3 297 = $19 200	$32 000 – $19 200 = $12 800

* adjusted to eliminate rounding off errors

It should be noted that the depreciation rate used under the reducing balance method is a fixed percentage each year. However, the amount of depreciation expense each year decreases because the percentage rate is applied to the carrying value of the asset. As the asset's carrying value decreases, so too does the depreciation expense in each of the following years. The

ISBN 978 1 4202 3058 1

details in figure 16.1 highlight how the reducing balance method allocates more depreciation expense in the earlier years of an asset's life. The calculations made earlier under the straight-line method determined a rate of $4800 per annum for the same vehicle. Under the reducing balance method the depreciation of the vehicle was greater than $4800 in the first two years and then lower than this amount in the last two years.

Two further points can be made at this stage in reference to depreciation. First, when calculating the depreciation rate under the reducing balance method, an approximation method is sometimes used. Once the percentage rate under the straight-line method has been calculated, this can be multiplied by 1.5 to determine the approximate rate under the reducing balance method. In the example of Sindoni's Supermarket, the rate under the straight-line method was 15% per annum. This provides a rate of approximately 22.5% (15% × 1.5) for the reducing balance method. According to the formula, the actual rate was found to be 20.47%, which is evidence of how accurate the approximation method can be. A second point to keep in mind when calculating depreciation expense is the qualitative characteristic of relevance. This qualitative characteristic demands that all important information be reported, but it also allows for insignificant values to be omitted from accounting reports, (materiality test). Therefore, it is common practice to omit cents in financial reports and it should always be kept in mind that depreciation is based on estimates. As depreciation is based on estimates such as useful life and residual value it is never expected to be absolutely exact.

16.4 Depreciation methods: a comparison

To highlight the differences between the two methods of depreciation outlined in this text, the following table has been prepared for the vehicle owned by Sindoni's Supermarket.

Year	Straight-line method	Reducing balance method
2016	$4800	$6550
2017	$4800	$5210
2018	$4800	$4143
2019	$4800	$3297
Total	$19200	$19200

It can be seen in the previous table that the total amount of depreciation allocated over the life of the asset is exactly the same under the straight-line and reducing balance methods. The straight-line method allocates a fixed amount of depreciation each year. The reducing balance method allocates more in the early years and less in the later years. However, over the life of the asset, both methods allocate the same amount of cost and end up with the original estimate of residual value as the carrying value of the asset after its four-year life.

This information can also be shown graphically to highlight the differences in cost allocation between the two depreciation methods. The graphs on the next page (figures 16.2 to 16.4) have been based on the above data.

Figure 16.2 Straight-line method of depreciation

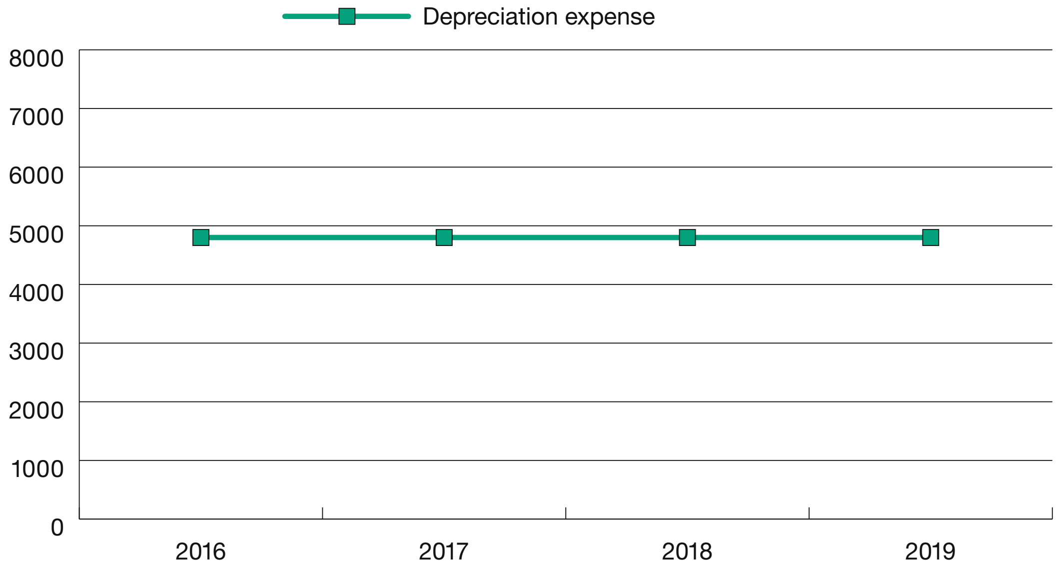
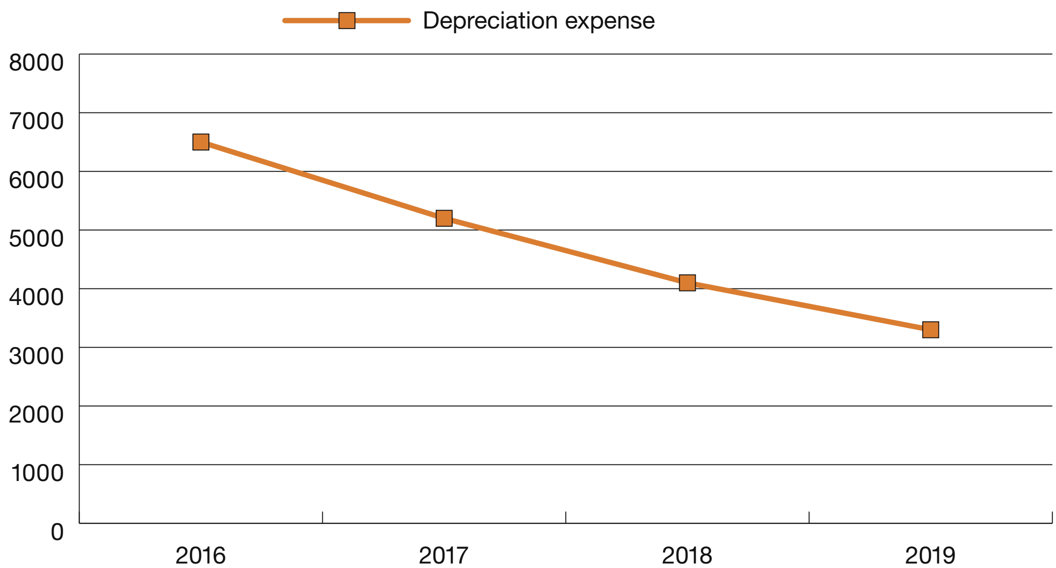


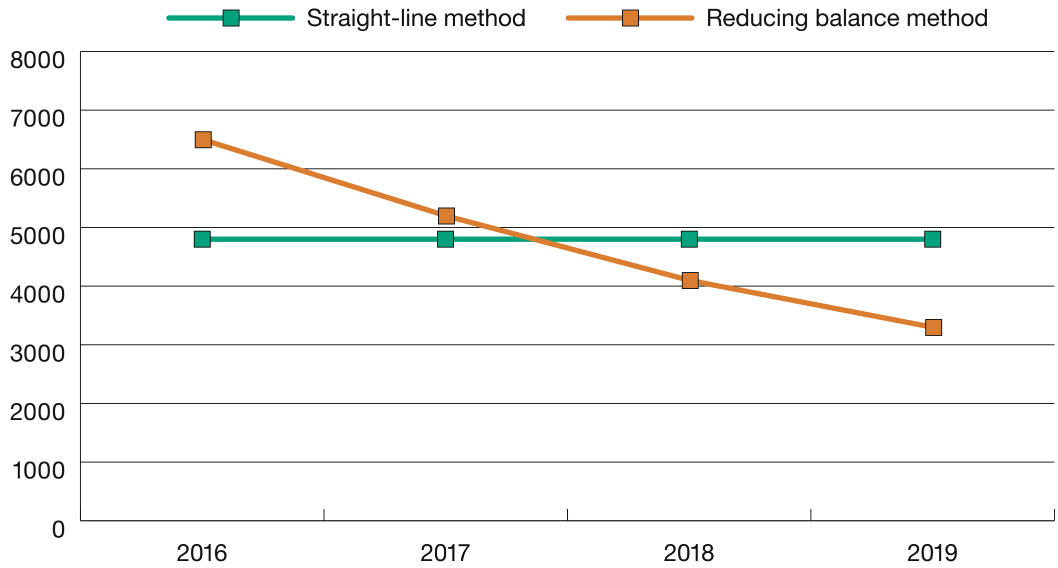
Figure 16.3 Reducing balance method of depreciation



The graphs in figures 16.2 and 16.3 represent the situation for the vehicle owned by Sindoni's Supermarket. They show quite clearly the difference between the two methods of depreciation. As the years pass, the amount of depreciation allocated under the reducing balance method decreases. Depreciation under the straight-line method will be at a constant rate throughout the asset's life. This fundamental difference will always exist between these two methods of depreciation, regardless of the type of asset involved and the estimated useful life of the asset. This point is emphasised in the graph in figure 16.4, which combines the two figures shown previously into the one comparative graph.

ISBN 978 1 4202 3058 1

Figure 16.4 **Combined graph showing both straight-line and reducing balance methods of depreciation**



It is important to keep in mind that the only difference between the two depreciation methods is the amount of cost to be allocated in a particular reporting period. The amount of depreciation, once determined, is recorded by exactly the same general journal entry on balance day. Only the amount will vary, depending on the method chosen. The general journal entries presented below have been written to allow a comparison of the two methods over the life of the vehicle owned by Sindoni's Supermarket.

Figure 16.5 **General journal entries: straight-line depreciation**

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
2016 Jun 30	Depreciation of vehicle Accumulated dep'n of vehicle Adjusting entry for depreciation of vehicle by the straight-line method at 15% p.a.	4 800	4 800		
2017 Jun 30	Depreciation of vehicle Accumulated dep'n of vehicle Adjusting entry for depreciation of vehicle by the straight-line method at 15% p.a.	4 800	4 800		
2018 Jun 30	Depreciation of vehicle Accumulated dep'n of vehicle Adjusting entry for depreciation of vehicle by the straight-line method at 15% p.a.	4 800	4 800		
2018 Jun 30	Depreciation of vehicle Accumulated dep'n of vehicle Adjusting entry for depreciation of vehicle by the straight-line method at 15% p.a.	4 800	4 800		

ISBN 978 1 4202 3058 1

Compare the entries shown above with the following general journal entries. The accounts affected by the adjusting entries are exactly the same, with only the amount of the entry changed due to the alternative method being adopted. Note also that the details of the depreciation method being used have been specified in the narration for each entry.

Figure 16.6 General journal entries: reducing balance depreciation

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
2016 Jun 30	Adjusting entry for depreciation of vehicle by the reducing balance method of 20.47% p.a.	6 550	6 550		
2017 Jun 30	Adjusting entry for depreciation of vehicle by the reducing balance method of 20.47% p.a.	5 210	5 210		
2018 Jun 30	Adjusting entry for depreciation of vehicle by the reducing balance method of 20.47% p.a.	4 143	4 143		
2018 Jun 30	Adjusting entry for depreciation of vehicle by the reducing balance method of 20.47% p.a.	3 297	3 297		

It should also be noted that the presentation of non-current assets in a balance sheet is unaffected by the choice of depreciation method. The historical cost of each asset is still shown, and accumulated depreciation is deducted from this figure to determine the carrying value of the asset on balance day. Once again, the only difference between the two methods is that the amount of accumulated depreciation will change if the alternative depreciation method is adopted. To further emphasise this, the following balance sheet extracts have been prepared to show how Sindoni's vehicle would be reported under each of the two methods:

Straight-line method

Balance sheet extracts as at 30 June:	*2016*	*2017*	*2018*	*2019*
Non-current assets				
Vehicle	32 000	32 000	32 000	32 000
less accumulated depreciation	4 800	9 600	14 400	19 200
	27 200	22 400	17 600	12 800

ISBN 978 1 4202 3058 1

Reducing balance method				
Balance sheet extracts as at 30 June:	2016	2017	2018	2019
Non-current assets				
Vehicle	32 000	32 000	32 000	32 000
less accumulated depreciation	6 550	11 760	15 903	19 200
	25 450	20 240	16 097	12 800

16.5 Depreciation methods: which one to use?

Having examined the differences between the two methods of depreciation, the question arises as to which method should be used by small businesses. There is no single answer to this question. The method to be selected should be based on the grounds of best satisfying the demands of **relevance** and the **reporting period principle**. In order to do this, the revenue earning pattern of an asset must be able to be identified. If an asset is expected to earn more revenue in its earlier years compared to when it is old, then the reducing balance method may be the most appropriate method. If an asset usually has the same revenue earning capacity regardless of its age, then perhaps the straight-line method should be adopted. The choice of depreciation method should always be linked to the nature of the asset being considered. A business that has numerous non-current assets may use both methods since the various assets owned by a business may have different revenue earning patterns. Management may elect to use the straight-line method for two different assets, yet they also apply the reducing balance method to two other assets. The following examples have been provided to illustrate where a particular method can be more appropriate than the alternative.

Asset	Depreciation method suggested
Shop fittings	Straight-line method
Office furniture	Straight-line method
Machinery	Reducing balance method
Vehicles	Reducing balance method

Both shop fittings and office furniture are usually just as efficient in their later years as when they are first purchased. Therefore a fixed amount of depreciation should be allocated as per the straight-line method. However, assets such as machinery and vehicles are usually more efficient when they are new and therefore there is a reasonable expectation that they will earn more revenue in these early years. Following the **reporting period principle** under accrual accounting, it is therefore desirable to match this greater amount of revenue with a higher allocation of depreciation expense. Therefore, the reducing balance method should be applied, as this will more accurately reflect the revenue earning pattern of the assets. It should be noted that once a method of depreciation is selected, it should normally be used throughout the asset's life. The accounting principle of **consistency** demands that accounting methods are consistently applied from one reporting period to the next. This also satisfies the demands of the qualitative characteristic of **comparability**, because comparisons are most difficult to make if accounting methods are constantly changing over several consecutive reporting periods.

ISBN 978 1 4202 3058 1

Therefore, it is important to select the depreciation method that is most appropriate for the asset under consideration and, once this has been done, it should be applied consistently over the life of the asset.

GLOSSARY OF TERMS

carrying value (or **book value**) historical cost of an asset less accumulated depreciation.

comparability a qualitative characteristic of accounting that demands that consistent methods be applied from one reporting period to the next so that valid comparisons of performance can be made.

consistency an accounting principle that demands that accounting methods be applied consistently from one reporting period to the next so that valid comparisons can be made.

reducing balance depreciation a method of depreciation which allocates more depreciation in the early years of an asset's life, and less depreciation in the later years of the asset's life.

straight-line method (or **fixed instalment method**) a method of depreciation that allocates the same amount of depreciation every reporting period, regardless of the age of the asset.

Summary questions

1. Outline the features of the straight-line method of depreciation.
2. Explain the workings of the reducing balance method of depreciation.
3. Outline the differences in cost allocation between the straight-line method and reducing balance method of depreciation.
4. On what basis should a depreciation method be selected? Explain your answer fully.
5. Explain the link between depreciation methods and the reporting period principle.
6. Explain the link between depreciation methods and the qualitative characteristic of relevance.
7. Describe the differences in the general journal entries for depreciation under the straight-line method compared to the reducing balance method.
8. Describe the types of assets to which straight-line depreciation should be applied.
9. For what type of asset should the reducing balance method be applied? Explain your answer.
10. For each of the following assets, state the depreciation method that you would recommend to allocate costs over their useful lives.
    - **a** computers
    - **b** sales manager's vehicle
    - **c** office equipment
    - **d** machinery
    - **e** display equipment
    - **f** forklifts.
11. A business owner has been advised that she should not change depreciation methods once she has commenced writing off her assets. Do you agree with this advice? Discuss this issue, with reference to accounting principles and the qualitative characteristics of accounting.

ISBN 978 1 4202 3058 1

Practical exercises

[Exercise 16.1]

Kevin Riley's Equestrian Centre purchased office equipment at a cost of $12 000, plus $1 200 GST. The manager of the business is considering a choice between the straight-line and the reducing balance methods of depreciation. The equipment is expected to be used for four years before it is sold. You have been asked to supply information regarding straight-line depreciation at the rate of 20% per annum or reducing balance depreciation at 30% per annum. Copy the following tables and complete the details for each of these two depreciation methods to assist the manager with his decision.

Method of depreciation: straight-line

Year	Depreciation	Accumulated depreciation	Carrying value
1			
2			
3			

Method of depreciation: reducing balance

Year	Depreciation	Accumulated depreciation	Carrying value
1			
2			
3			

[Exercise 16.2]

White's Furniture Store has purchased a new vehicle at a cost of $24 000, plus GST of $2 400. The vehicle is expected to be used in the business for five years. The estimated residual value of the vehicle is expected to be about $5 700.

a Prepare tables as shown below and complete the details for the straight-line method and the reducing balance method (for the reducing balance method, simply apply depreciation at 25% per annum).

Method of depreciation: straight-line

Year	Depreciation	Accumulated depreciation	Carrying value
1			
2			
3			

Method of depreciation: reducing balance

Year	Depreciation	Accumulated depreciation	Carrying value
1			
2			
3			

b Prepare a graph to highlight the differences between the two depreciation methods. Use a line graph with one line for each depreciation method, showing the depreciation expense each year.

c In what years does the reducing balance method allocate:

i more depreciation than the straight-line method

ii less depreciation than the straight-line method

d Prepare a line graph showing the balance of accumulated depreciation each year under each of the two methods of depreciation.

[Exercise 16.3]

City Stationery Supplies bought a new photocopier for its office on 1 February 2015 for $14 000, plus GST of $1 400. The machine is to be used until it is four years old, after which it is expected to be traded in on a new model. Balance day for the business is 31 July each year. The photocopier is to be depreciated by the reducing balance method at the rate of 20% per annum.

a Calculate the depreciation expense to be allocated on 31 July 2015, 2016 and 2017.

b Prepare the necessary adjusting and closing entries for depreciation of the photocopier for each of the three years.

c Prepare the general ledger accounts for the photocopier, depreciation of the photocopier and accumulated depreciation of the photocopier.

ISBN 978 1 4202 3058 1

d Show how the photocopier would be reported in the balance sheets of this business on 31 July 2015, 2016 and 2017.

e Do you think the reducing balance method is the most appropriate to depreciate a photocopier? Explain your answer fully.

[Exercise 16.4]

Connie Grant is the owner of Grant's Imports and she purchased display equipment on 1 October 2015 for $35 200, including GST. The owner has decided to depreciate the equipment at 25% per annum on the reducing balance method. The books of the business are closed on 31 December each year.

a Prepare the necessary adjusting and closing entries for depreciation of the display equipment for the years ended 31 December 2015, 2016 and 2017 (narrations are not required).

b Prepare the display equipment, depreciation of display equipment and the accumulated depreciation of display equipment accounts in the general ledger.

c Prepare a balance sheet extract to show how the display equipment would be reported as at 31 December 2015, 2016 and 2017.

d A friend of the owner has suggested that she should be using the straight-line method to depreciate the equipment, as it will result in a more consistent profit over the years. Do you agree? Explain your answer.

e A qualitative characteristic of accounting may be breached by Grant if she changed depreciation methods. Explain the possible implications of this change, with reference to a qualitative characteristic of accounting.

[Exercise 16.5]

Russell's Rugs is small business situated in Strathmore that is owned and operated by Russell Cosgriff. The business purchased a vehicle on 1 July 2015 for $28 000, plus GST. The vehicle is expected to be owned for about four years. Cosgriff is unsure whether to depreciate the asset under the straight-line method at 20% per annum or the reducing balance method at 30% per annum. The business closes it books on 31 December each year.

a Calculate depreciation under the two alternative methods for the years ended 31 December 2015, 2016, 2017 and 2018.

b Explain fully the difference in profit for each of the four years if the vehicle is depreciated using the reducing balance method of depreciation.

c Which method of depreciation would you recommend to Cosgriff in relation to his vehicle? Explain your answer fully, with reference to an accounting principle in your answer.

[Exercise 16.6]

Cairnlea Computer Shop has been operating for two years and during this time has been depreciating its office furniture using the reducing balance method. The percentage rate charged each year on 30 June has been 15% of the asset's carrying value. The furniture had a historical cost of $10 000 and the balance of the accumulated depreciation account on 30 June 2015 was $2775. When the furniture was first purchased on 1 July 2013 the owner of the business estimated that it would have a useful life of 10 years and an estimated scrap value of $2 000.

a What would be the balance of the accumulated depreciation account on 30 June 2015 if the straight-line method of depreciation had been used from the date the furniture was purchased?

b What method of depreciation do you think is the most appropriate for office furniture? Give reasons for your answer, with reference to a qualitative characteristic.

c Calculate the amount of depreciation that would be charged as at 30 June 2016 if the reducing balance is still used by this business.

d The owner is considering changing depreciation methods to the straight-line method. Given that $2775 has already been written off the asset, how much would be written off per annum under the straight-line method over the next eight years?

e If the owner changed depreciation methods they may be breaching a qualitative characteristic of accounting. State the characteristic that may be breached and explain why it is important.

[Exercise 16.7]

Handy Home Appliances purchased a vehicle on 1 April 2012 for $24 000, including GST. The owner of the business estimated that the vehicle would have a useful life of five years and then be sold for approximately $9600. The vehicle has been depreciated using the straight-line method on 31 March 2013 and 2014. However, the owner has been told that reducing balance depreciation is a more appropriate method for depreciating a vehicle. She has calculated that the rate to be charged would be 20% of the asset's carrying value.

a If the straight-line method was used again in 2015, what would be the depreciation expense allocated for the year?

b If the vehicle was depreciated using the reducing balance method at 20% per annum, what would be the depreciation expense for the year ended 31 March 2015?

c Explain the effect the change on accounting method would have on the net profit figure reported for the year ended 31 March 2015.

d The owner is concerned that if she changes depreciation methods she may be breaching an accounting principle. State the principle that may be breached by the proposed change.

e Do you think the change in method should be adopted? Explain your answer fully.

ISBN 978 1 4202 3058 1

Chapter 17

Buying and selling non-current assets

OBJECTIVES

At the completion of this chapter, you should be able to:

- prepare a general journal entry to record a purchase of a non-current asset on credit
- explain why a sundry creditors account may be required in the general ledger
- record a purchase of a non-current asset on credit in the general ledger
- prepare general journal entries to record the disposal of a non-current asset for cash or as a trade-in
- calculate a profit or loss on disposal of an asset
- prepare a disposal of asset account in the general ledger
- classify profits and losses on disposal in an income statement
- explain how a profit or loss on disposal occurs in relation to the allocation of depreciation
- explain how a change in depreciation method affects the profit or loss on disposal of a non-current asset.

ISBN 978 1 4202 3058 1

17.1 Recording credit purchases of non-current assets

If a business purchases a non-current asset on credit (for example, a vehicle) it should be recorded in the general journal. Keep in mind that the purchases journal is restricted to the recording of credit purchases of stock. These stock items are unique, as they are used up when a business generates its sales. Non-current assets are usually expected to be under the control of a business entity for a number of years. It is important to keep these two types of transactions separate. If a non-current asset is bought for cash it should be shown in the cash payments journal. Those non-current assets purchased on credit should be recorded in the general journal.

This is usually an irregular event for most small businesses and the four special journals do not provide for such a transaction. To demonstrate a credit purchase of a non-current asset, let us look at the following details:

On 4 July 2015 Seddon Sports purchased a vehicle for $35 000, plus GST of $3 500, on credit from Newport Holden (Invoice CE431). The general journal entry is shown in figure 17.1.

Figure 17.1 General journal entry for the purchase of a non-current asset

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Jul 4	Vehicle	35 000			
	GST clearing	3 500			
	Sundry creditor—Newport Holden		38 500		
	Bought vehicle on credit (Inv. CE431)				

The double entry in the general ledger when this journal entry is posted is shown below:

Vehicles a/c

		$			$
Jul 31	Sundry creditor—Newport Holden	35 000			

GST clearing a/c

Jul 31	Sundry creditor—Newport Holden	3 500			

Sundry creditor—Newport Holden a/c

			Jul 31	Vehicles/GST clearing	38 500

It is important to note that the creditors subsidiary ledger is not affected by the credit purchase of a non-current asset. The subsidiary ledger is reserved for transactions that involve trade creditors only. A trade creditor is a supplier that provides stock to a business on credit. That is, trade creditors are suppliers of the goods that the business trades in on a regular basis. In the above example, a vehicle was purchased on credit by Seddon Sports. As a sports store does not buy and sell cars in order to make a profit, this item is clearly not a stock item and therefore must

ISBN 978 1 4202 3058 1

not be recorded in the creditors control account or the creditors subsidiary ledger. Therefore, an additional creditor's account must be created in the general ledger. A sundry creditors account is created for this purpose. A **sundry creditor** is simply a supplier that has provided goods other than the stock items that a business trades in on a day-to-day basis. This includes the purchasing of non-current assets on credit. When creating such an account, the name of the creditor should be noted as part of the account title. For example, in the above case the account was named sundry creditor—Newport Holden. By following this procedure, trade creditors can be kept separate from sundry creditors. This will assist management in managing their trade creditors, as they can determine at any time how much is owed in total for stock purchases.

17.2 Disposal of non-current assets

When a non-current asset is purchased by a business, its historical cost is debited to an asset account. Then, on every balance day throughout the asset's useful life, it is depreciated. Both of these events have already been covered in this text. The final process in regard to a non-current asset is the recording of its disposal. An asset may be scrapped for no return, be sold for cash or traded in on a replacement asset. Regardless of what happens to a non-current asset when it is disposed of, it is important to remove it from the books of the business, as it is no longer under the control of the entity. The necessary steps to record the disposal of an asset for cash are as follows:

1. Transfer the historical cost of the asset to the disposal of asset account.
2. Transfer the accumulated depreciation of the asset to the disposal of asset account.
3. Record the proceeds gained from the sale of the asset in the disposal of asset account. That is, record the amount received for the asset.
4. Close off the disposal of asset account by recording the profit or loss on the sale of the asset. This entry will also have the effect of closing off the disposal of asset account.

The following example demonstrates this process:

1 July 2015:	Purchased a computer for $10 000 cash
	Estimated useful life: 2 years
	Estimated scrap value: $4 000
	Depreciation method: straight-line method

Therefore:

$$\text{Depreciation} = \frac{(\$10\,000 - \$4\,000)}{2}$$

$$= \$3\,000 \text{ per annum}$$

30 June 2017:	Sold the computer system for $3 800 cash.

The entries relating to the purchase of the computer, the depreciation of the computer each year and the **loss on disposal of asset** (disposal of the computer) on 30 June 2017 are all shown in the general ledger accounts as follows:

ISBN 978 1 4202 3058 1

General ledger

Computer a/c

		$			$
1/7/15	Cash at bank	10 000	30/6/17	Disposal of computer	10 000

Depreciation of computer a/c

30/6/16	Accum. dep'n computer	3 000	30/6/16	P&L summary	3 000
30/6/17	Accum. dep'n computer	3 000	30/6/17	P&L summary	3 000

Accumulated depreciation of computer a/c

			30/6/17	Dep'n of computer	3 000
30/6/17	Disposal of computer	6 000	30/6/17	Dep'n of computer	3 000
		6 000			6 000

Disposal of computer a/c

		$			$
30/6/17	Computer	10 000	30/6/17	Accum. dep'n computer	6 000
				Cash at bank	3 800
				Loss on disposal of comp.	200
		10 000			10 000

Loss on disposal of computer a/c

30/6/17	Disposal of computer	200	30/6/17	P&L summary	200

In this example the computer has been sold at the end of its predicted useful life. Its **carrying value** (or **book value**) at this time will equal its estimated scrap value of $4000 ($10 000 – $6000). This $4000 represents the economic sacrifice made by the business on 30 June 2017 and can be compared against the actual cash generated by the disposal of the asset. When the asset was disposed of, the business received $3800 and this amount has been recorded on the credit side of the disposal of computer account. To close off the disposal account, the loss on sale of $200 has been recorded on the credit side. This makes both sides equal and therefore the disposal account is now closed off. The corresponding debit entry of $200 has been made to the loss on disposal of computer account. This is logical, as the asset was sold for $200 less than its carrying value, which was $4000 at the time it was sold. This has occurred because the depreciation rate was too low over the life of the asset. A different aspect of this result is that the original estimate of scrap value was slightly too high. Other reasons for an asset being sold for less than its carrying value include:

- The item is no longer popular and therefore there is not much demand in the second-hand market.
- An asset may become technologically obsolete. For example, it is difficult to sell second-hand computers for much return, as new, advanced models are developed very quickly.
- The asset may be severely marked or damaged through its business use.

Above all else, it should be kept in mind that depreciation is not a valuation tool. When depreciation is allocated, it is done in order to match an appropriate amount of depreciation expense against the revenues generated by the asset. It is not recorded in order to make predictions about market value at a particular point in time. Also, it is unrealistic to expect depreciation to be perfectly accurate, as scrap values are predicted for years in advance in the case of some assets. The entries required on the disposal of an asset simply adjust the firm's books for any **over-** or **under-depreciation** that has occurred over the life of the asset. Using the data from above, the following item would be reported in the firm's income statement under the heading Other Expenses:

Loss on disposal of computer	$200

This one item provides a neat summary of the events that have taken place. The computer account has been eliminated, as has the accumulated depreciation of computer account. The proceeds from the sale have been recorded in the cash at bank account. The end result of all the transactions is that the business has suffered a loss of $200 and this has been reported as an expense for the reporting period.

An asset may sometimes be sold for more than its carrying value when it has been depreciated too much. In this case the firm recovers an amount in excess of its carrying value. The difference between carrying value and the **proceeds from disposal** will simply be reported in the firm's income statement under the heading other revenue. For example, if the computer was sold for $4 100, this indicates that it was sold for $100 higher than its carrying value. That is, the business has made a profit of $100 on the disposal of the computer. As this $100 has not been earned in the ordinary course of business, the profit on disposal of computer should not be listed in the top section of the report with the firm's sales. Such profits should always be reported separately under the heading of other revenue.

As is the case with all ledger entries, the transactions must first be recorded in a journal. As the disposal of a non-current asset does not occur on a regular basis, it is recorded in the general journal. The ledger entries shown above for the disposal of the computer system have been prepared in the general journal in figure 17.2. Note that these entries are based on the original data. That is, the computer was sold for $3 800.

Figure 17.2 **General journal entries for the disposal of a non-current asset**

Date	Details	General ledger		Subsidiary ledger	
		Dr $	Cr $	Dr $	Cr $
Jun 30	Disposal of computer Computer Transfer of cost of computer sold	10 000	 10 000		
	Accum. dep'n computer Disposal of computer Transfer of accum. dep'n on computer sold	6 000	 6 000		
	Loss on disposal of computer Disposal of computer Transfer of loss on disposal of computer	200	 200		

ISBN 978 1 4202 3058 1

There is one other journal entry that would be recorded when the asset was sold. As it was sold for $3800 cash, this transaction should be recorded in the cash receipts journal in the usual fashion. Thus the following entry would be recorded on 30 June 2017 as shown in figure 17.3.

Figure 17.3 **Cash receipts journal entry for the sale of a non-current asset for cash**

Cash receipts journal

Date	Details	Rec. no.	Bank $	Debtors $	Cost of sales $	Sales $	Sundries $	GST $
Jun 30	Disposal of computer	342	3800				3800	

Note that the disposal of a non-current asset should be recorded in the sundries column. The sales column is reserved for sales of inventory and, as a sale of a non-current asset would usually be an unusual or infrequent transaction, it would not normally have a designated column. Therefore, the amount received should be recorded in the Bank column and also the Sundries column.

17.3 Trading in non-current assets

The journal entries shown above cover the situation where an asset is sold for cash. If an asset is traded in, the entries required will vary slightly. The details used previously for the computer have been repeated below, except in this case the computer is not being sold for $3800. It has been traded in for $3800 on a new machine that has been bought on credit for $12000 from Con's Computers.

1 July 2015: Purchased a computer for $10000
Estimated scrap value: $4000
Depreciation method: straight-line method

$$\text{Depreciation} = \frac{(\$10000 - \$4000)}{2}$$

$$= \$3000 \text{ per annum}$$

30 June 2017: Traded in the computer system for $3800 on a new model bought on credit that cost $12000, plus GST of $1200 (Invoice 9867).

As the asset was traded in and not sold for cash, the entry shown previously in the cash receipts journal will not exist, as no cash has changed hands. However, the trade-in allowance must now be recognised and recorded. The appropriate entries are shown in figure 17.4.

ISBN 978 1 4202 3058 1

Figure 17.4 General journal entries for the trade-in of a non-current asset

Date	Details	General ledger Dr $	General ledger Cr $	Subsidiary ledger Dr $	Subsidiary ledger Cr $
Jun 30	Disposal of computer	10 000			
	Computer		10 000		
	Transfer of cost of computer sold				
	Accum. dep'n computer	6 000			
	Disposal of computer		6 000		
	Transfer of accum. dep'n on computer sold				
	Sundry Creditor—Con's Computers	3 800			
	Disposal of computer		3 800		
	Trade-in allowance recorded on disposal of asset				
	Loss on disposal of computer	200			
	Disposal of computer		200		
	Transfer of loss on disposal of computer				
	Computer	12 000			
	GST Clearing	1 200			
	Sundry Creditor—Con's Computers		13 200		
	Purchased computer on credit (Inv. 9867)				

When a comparison is made between the above entries and the previous example of a cash sale of an asset, the following can be noted:

- The transfer of the historical cost is done in exactly the same way.
- The accumulated depreciation on the asset being disposed of is transferred in the same way.
- Rather than an entry being made in the cash receipts journal, the trade-in allowance results in a debit to the sundry creditors account, as the trade-in value will be deducted from the historical cost of the new computer being purchased.
- The loss on disposal is recorded in the same fashion and has the effect of closing off the disposal of computer account.
- The final general journal entry records the purchase of the new computer with the usual double entry.

When all the entries prepared above are posted to the general ledger accounts, the picture will be clearer. The old computer will be eliminated from the books, as will its accumulated depreciation. The trade-in allowance will be posted to the credit side of the disposal account as the proceeds from the sale, while at the same time it is a debit to the sundry creditors account, thus reducing the debt to the supplier of the new computer. The general ledger accounts are as follows:

ISBN 978 1 4202 3058 1

General ledger

Computer a/c

		$			$
1/7/15	Cash at bank	10 000	30/6/17	Disposal of computer	10 000
30/6/17	Sundry creditor—Con's Computers	12 000			

Depreciation of computer a/c

30/6/16	Accum. dep'n computer	3 000	30/6/16	P&L summary	3 000
30/6/17	Accum. dep'n computer	3 000	30/6/17	P&L summary	3 000

Accumulated depreciation of computer a/c

			30/6/16	Dep'n of computer	3 000
30/6/17	Disposal of computer	6 000	30/6/17	Dep'n of computer	3 000
		6 000			6 000

Disposal of computer a/c

30/6/17	Computer	10 000	30/6/17	Accum. dep'n computer	6 000
				Sundry creditor—Con's Computers	3 800
				Loss on disposal of computer	200
		10 000			10 000

Loss on disposal of computer a/c

30/6/17	Disposal of computer	200	30/6/17	P&L summary	200

Sundry creditor—Con's Computers a/c

30/6/17	Disposal of computer	3 800	30/6/17	Computer/GST clearing	13 200

The account for Con's Computers has two separate entries. On the credit side is the historical cost of the new computer, including the GST charged. On the debit side is the trade-in allowance that was recorded in the disposal of computer account. Therefore, after these two events the amount owed to the business of Con's Computers is $9 400 ($13 200 – $3 800).

The final step to be taken when an asset is disposed of is to close off the loss on disposal of the computer to the profit and loss summary account. As a loss on disposal is an expense item, it will be closed off along with all other expenses and then reported under other expenses in the income statement. The general journal closing entry has been prepared as shown in figure 17.5.

ISBN 978 1 4202 3058 1

Figure 17.5 Closing entry for a loss on disposal of an asset

Date	Details	General ledger		Subsidiary ledger	
		Dr $	Cr $	Dr $	Cr $
Jun 30	P&L summary Loss on disposal of computer Closing entry	200 	 200 		

If an asset is disposed of at a profit—that is, at a value greater than its carrying value—the closing entry is simply the other way around. As a **profit on disposal of asset** represents a revenue item, the profit and loss summary account must be credited, with the debit entry being recorded in the revenue account to bring its balance back to zero. The closing entry for a profit of $100 on the sale of a computer would be as shown in figure 17.6.

Figure 17.6 Closing entry for a profit on disposal of an asset

Date	Details	General ledger		Subsidiary ledger	
		Dr $	Cr $	Dr $	Cr $
Jun 30	Profit on disposal of computer P&L summary Closing entry	100 	 100 		

› GLOSSARY OF TERMS

carrying value (or **book value**) historical cost of an asset less accumulated depreciation.

loss on disposal of asset the difference between the carrying value of an asset and the proceeds from the disposal of the asset, where the proceeds are less than the carrying value.

over-depreciation a situation whereby a non-current asset has been depreciated too much due to the under-estimation of either the asset's useful life or its residual value, leading to a profit on disposal.

proceeds from disposal of asset the amount of cash received, or the trade-in value granted, on the disposal of a non-current asset.

profit on disposal of asset the difference between the carrying value of an asset and the proceeds from the disposal of the asset, where the proceeds are greater than the carrying value.

sundry creditor a supplier that has provided an asset, other than stock, on credit.

under-depreciation a situation whereby a non-current asset has not been depreciated enough due to the over-estimation of either the asset's useful life or its residual value, leading to a loss on disposal.

Summary questions

1. Explain why purchases of non-current assets are recorded in the general journal and not in the purchases journal.
2. Distinguish between the terms 'trade creditor' and 'sundry creditor'.
3. State the double entry required when a business trading as Nick's Menswear purchases a computer on credit from Larry's Laptops for $2000 plus $200 GST.
4. State the names of the two ledger accounts that must be closed off to the disposal of vehicle account when a vehicle is sold for cash.
5. Explain the circumstances that exist when:
   - **a** a loss is made on the disposal of a non-current asset
   - **b** a profit is made on the disposal of a non-current asset.
6. A vehicle was sold for $5000 when its carrying value was $5500. State the double entry to record the profit or loss on disposal of the vehicle.
7. Explain the difference in recording procedures when an asset is traded in rather than sold for cash.
8. A photocopier has been traded in for $6000 on a new machine that was bought on credit from Classic Copiers for $25000, plus GST. State the double entries required for:
   - **a** the trade-in allowance
   - **b** the purchase of the new photocopier.

Practical exercises

[Exercise 17.1]

On 5 September 2015 Trusty Products purchased a new computer on credit from PC Computers for $2400, plus GST of $240 (Inv. 486). On 12 September the firm bought a photocopier costing $14000, plus $1400 GST, from Kanen Co. Ltd and received Invoice no. LK874.

- **a** Show the general journal entries to record these transactions.
- **b** Post the general journal to the relevant general ledger accounts.
- **c** 'All purchases of non-current assets should be recorded in the general journal.' Do you agree? Explain your answer.

[Exercise 17.2]

Prepare the required general journal entries to ensure the correct recording of the following information in the books of Thomastown Toys during November 2015. This business uses control accounts for both trade debtors and trade creditors:

ISBN 978 1 4202 3058 1

Nov 4	A mobile phone was purchased on credit from Mobiles 'R' Us for $700, plus GST of $70 (Invoice no. R518).
10	An office desk was purchased for $440, including GST of $40, on credit from Frankie Cotso Furniture (Invoice no. 241).
18	The owner bought a new office chair on credit for $300, plus GST of $30. The supplier, Furniture Galore, issued Invoice no. 7326.
22	One of the firm's debtors, S. Claus, returned goods that were originally sold for $220, including GST of $20. Credit note no. 54 was issued and full credit was granted. The cost price of the goods returned was $100.
27	The owner was dissatisfied with some products in the store and returned them to Big Boys Toys, the original supplier, who sent Credit note no. 72. The original charge was $300, plus GST of $30, when the purchase was initially made.

[Exercise 17.3]

The following ledger accounts were extracted from the books of Brunswick Barbecues at the end of 2015.

Vehicle a/c

		$			$
Dec 31	Balance	18 000			

Accumulated depreciation of vehicle a/c

			Dec 31	Balance	13 000

On 31 December 2015 the vehicle was sold for $4 700 cash.

a Record the cash received from the sale of the asset in the cash receipts journal.

b Prepare the general journal entries necessary to record the disposal of the vehicle.

c Prepare the closing entries required on 31 December 2015 in relation to the profit or loss on the disposal of the vehicle.

d Prepare the following general ledger accounts: vehicle, accumulated depreciation of vehicle, disposal of vehicle and profit or loss on disposal of vehicle.

e State the item that would be reported in the firm's income statement as a result of the disposal of the vehicle.

[Exercise 17.4]

Ezard's Electricals closes its books on 30 June each year. The business purchased storage equipment on 1 July 2015 for $8 000, plus GST. The equipment had an estimated life of five years, after which time it was expected to be sold for $1 000. Management decided to depreciate the asset on the straight-line method. On 30 June 2017 the owner decided to sell the equipment for $5 500 cash.

a Record the cash received from the sale of the asset in the cash receipts journal.

b Prepare the general journal entries required to record the disposal of the equipment on 30 June 2017.

ISBN 978 1 4202 3058 1

c Prepare the following general ledger accounts for the period 1 July 2015 to 30 June 2017:
   i Storage equipment
   ii Depreciation of storage equipment
   iii Accumulated depreciation of storage equipment
   iv Disposal of storage equipment.

d Was a profit or a loss made on the disposal of the equipment? If so, how much?

e Explain why the profit or loss identified in **c** occurred.

[Exercise 17.5]

A delivery van was purchased by Fawkner Furniture for $28 000, plus GST, on 1 July 2015. The owner decided to depreciate the van at the rate of 25% per annum using the reducing balance method. The business has a reporting period of 12 months and the balance day is 31 December. Due to its poor performance the van was sold for $14 800 cash on 31 December 2017.

a Prepare the general journal entries required to record the disposal of the vehicle on 31 December 2017.

b Prepare the closing entries required in relation to the disposal of the asset.

c Prepare the following general ledger accounts for the period 1 July 2015 to 31 December 2017:
   i Delivery van
   ii Accumulated depreciation of delivery van
   iii Disposal of delivery van
   iv Profit (or poss) on disposal of delivery van.

[Exercise 17.6]

The following accounts were found in the general ledger of Mikey D's Drums & Bass, a small business that specialises in musical instruments.

Photocopier a/c

		$			$
2015					
Aug 31	Balance	32 000			

Accumulated depreciation of photocopier a/c

			2015		
			Aug 31	Balance	14 000

On 31 August 2015 the photocopier was traded in on a new model. The trade-in allowance was $16 500 towards the cost of the new photocopier, which was $35 000 plus GST of $3 500. The supplier of the new photocopier was Connica Ltd., who provided Invoice no. 812.

a Prepare the general journal entries necessary to record the disposal of the photocopier.

b Prepare the general journal entry to record the purchase of the new photocopier.

ISBN 978 1 4202 3058 1

c Prepare the following general ledger accounts: photocopier, accumulated depreciation of photocopier, disposal of photocopier and sundry creditor—Connica Ltd.

d State the amount owing to Connica Ltd after all transactions have been posted to the general ledger.

[Exercise 17.7]

Garra's Gift Store closes its reporting period on 30 September each year. The owner of the business, Jon Garra, bought a computer system on credit from MBI Computers on 31 July 2015 for $6000, plus GST of $600. He decided to depreciate the computer using the reducing balance method at 30% per annum and to keep it for a few years. However, after discovering a new improved model, Garra decided to trade in his old computer system and upgrade to the new one. The supplier of the new system, Computer Solutions, gave Garra a trade-in allowance of $2100 on 31 March 2017. Invoice 192 stated that the price of the new system was $8000 plus $800 GST (invoice 684).

a Prepare the general journal entry to record the purchase of the asset on 31 July 2015.

b Prepare any necessary adjusting and closing entries on 30 September 2015 and 2016.

c Prepare the general journal entries required to record the disposal of the computer on 31 March 2017.

d Prepare the following general ledger accounts for the period 31 July 2015 to 31 March 2017:
   i Computer System
   ii Depreciation of Computer System
   iii Accumulated Depreciation of Computer System
   iv Disposal of Computer System
   v Profit (or Loss) on Disposal of Computer System
   vi Sundry Creditor—Computer Solutions.

e Was a profit or a loss made on the disposal of the computer system? If so, how much?

f Explain how a profit or loss on disposal occurs.

[Exercise 17.8]

Katrina Williams is the proprietor of Kat's Boutique. On 1 September 2015 Williams purchased a sound system for her shop at a cost of $8000, plus $800 GST. It was bought on credit from BJ Hi-Fi Store, who also charged an additional $600 to install the system (plus GST of $60). These costs were confirmed in writing when Invoice number 317 was received. This invoice was paid on 30 September 2015. Williams thought the sound system should be useful for about five years and then she would trade it in. She anticipated that a trade-in value of about $1200 would be received. Balance day is 30 June and straight-line depreciation is applied.

On 30 September 2017, Williams was dissatisfied with the sound system and arranged for it to be replaced. BJ Hi-Fi was again the supplier and provided the following document.

ISBN 978 1 4202 3058 1

BJ HI-FI
8121 HIGHPOINT ROAD
MAIDSTONE 3012

TAX INVOICE
DATE: 30/9/17
ABN 31 101 232 948

ACCOUNT: KAT'S BOUTIQUE
27 PALM BEACH AVENUE
BRIGHTON 3186

Qty	Item	Cost	GST	Total
1	Megablast system	$9 000	$900	$9 900
	Installation charge	$1 000	$100	$1 100

Subtotal	$11 000
Less trade-in allowance	$4 000
Amount owing	$7 000

CREDIT TERMS—STRICTLY 30 DAYS

Williams thinks the new system will be much better than the previous one and she expects the Megablast system to be used for five years, before being sold for about $1 500. BJ Hi-Fi was paid the amount outstanding on 31 October 2017.

a Prepare the general journal entries required to record the disposal of the sound system on 30 September 2017.

b Prepare the following general ledger accounts for the period 1 September 2015 to 30 September 2018, including details of both assets:
- i Sound system
- ii Accumulated depreciation of sound system
- iii Disposal of sound system
- iv Profit (or loss) on disposal of sound system.

CASE STUDY

GREENSBOROUGH GARDEN SUPPLIES is a small business owned and managed by Matthew Decker. In order to move heavy items around his saleyard, Decker has purchased a number of forklifts over the years. Decker's policy is to depreciate its forklifts at the rate of 25% per annum using the reducing balance method of depreciation. If the forklifts become unreliable he does not hesitate to replace them, as they are crucial to the running of his business. The following is a summary of the purchases and sales of his forklifts over the years:

- » Forklift 1: Purchased on 1/4/2015 for $15 000 cash, plus GST of $1 500. Insurance of this asset costs $200 per annum.
- » Forklift 2: Bought for $19 800 cash (including GST) on 31/10/2015. Insurance on this forklift was $250 per year.
- » Forklift 3: This one was purchased on 30/6/2016 as a replacement for forklift #1, which kept breaking down. A trade-in allowance of $9 000 was granted by the supplier, Dynamic Forklifts. The invoice price of the new forklift was $19 000 (plus GST), but modifications were required and these cost an additional $1 500 (plus GST). One year's insurance cost $300.
- » Forklift 4: As forklift no. 2 was now becoming unreliable, it was traded in for $13 500 on no. 4 on 1 September 2017. Dynamic Forklifts issued an invoice with a cost price of $22 000, plus GST of $2 200. Insurance was arranged at a cost of $400 per annum and, due to previous problems with his forklifts, Decker arranged a maintenance contract at a cost of $500 per year.

a Calculate the amount of depreciation expense that would be shown in the income statements for the years ended 31 December 2015, 2016 and 2017. (Show all workings.)

b Prepare extracts from the balance sheets prepared as at 30 June 2015, 2016 and 2017 to show how the asset forklifts would be reported in each of these three years.

c Prepare the disposal of forklift account with all entries in relation to:

i forklift 1
ii forklift 2.

d Depreciation and disposal of non-current assets are both affected by several accounting principles and/or qualitative characteristics. State, and explain, the principles and characteristics that are related to this area over the life of a non-current asset.

ISBN 978 1 4202 3058 1

Chapter 18

Inventory valuation

OBJECTIVES

At the completion of this chapter, you should be able to:

- distinguish between a ‘product cost’ and a ‘period cost’
- apply relevance to the determination of product costs
- explain the meaning of the term ‘net realisable value’ (NRV)
- determine the NRV for a particular line of inventory
- describe the application of the principle of conservatism
- value inventory at the lower of cost and net realisable value
- record a stock write down in the general journal and in stock cards
- explain the effect of a stock write down on an income statement
- explain the two-fold effect of a stock write down on a balance sheet.

ISBN 978 1 4202 3058 1

18.1 Product costs versus period costs

The cost of inventory refers to the purchase price of an item plus any other costs that can be directly related to that item. The purchase price is normally stated on a purchase invoice. The other costs may include customs duty or cartage if they can be isolated to a particular item of inventory. For example, if five items are purchased and the cartage paid was $15 it is clear that $3 cartage has been incurred per unit. Under these circumstances such cartage can be charged to the individual items of inventory as a **product cost**. That is, it becomes part of the cost of a product or item of inventory and is recorded on that item's stock card. However, it is not possible to do this when a delivery of inventory involves several different items. For example, consider a delivery for a sports store of 20 footballs, 30 football jumpers, 12 soccer balls and 3 trampolines that involved a cartage fee of $25. It is not possible in this case to isolate the cartage per inventory item in a logical manner and therefore the cartage is treated as a **period cost** instead of as a product cost. That is, it is written off as an expense for the reporting period and is not recorded as part of the cost of a particular stock item. When used in reference to inventory the term 'cost' is basically the purchase price of an item, but it may also include other expenses incurred in buying that particular item of stock.

The materiality test

When considering the *cost* of an item of inventory, the qualitative characteristic of *relevance* should also be taken into account. The question of whether an item is relevant may be decided by the materiality rule. Whether or not an item should be included as part of the cost of stock is a matter of opinion and judgment. The **materiality test** provides some guidance about what is a significant item. Accounting information is usually viewed as relevant if its omission is likely to affect decision-making. Materiality does not consider the nature of the item. It is simply concerned with the dollar value of the amount paid and its relative importance. Consider the following two scenarios:

Purchase 1: One computer desk at a cost of $90, plus a delivery fee of $10

Purchase 2: Ten bar stools with a cost price of $75, plus a delivery fee of $10

In the case of the first purchase, the item purchased has a cost of $90, with a delivery fee of $10. The question arises as to how to treat the $10. Should it become part of the cost of the item or should it be treated as a separate expense? The answer lies in the interpretation of *relevance* and the materiality test. If the $10 is viewed as a relevant amount, it should be added to the cost of the item of inventory. If this is done, the item would be entered on the stock card at a cost price of $100 ($90 + $10 delivery fee). However, if the $10 is not seen as relevant to decision-making, it would not be added to the cost price and the delivery fee would be treated as a period cost in the usual fashion (probably as cartage inwards). With an amount of $10 it is safe to say that most people would suggest that this amount should be treated as a product cost. It is a significant dollar amount on a per item basis and it would clearly impact on one's decision-making when determining the selling price of the desk. It is quite easily identifiable on a per unit basis and therefore it is more than likely that it should be treated as a product cost. The materiality test is basically a matter of opinion. However, if a cost can be traced to an individual unit in a logical way and is a reasonably significant dollar value (as in the case of the delivery fee) it should be treated as part of the cost of the item.

The case of the delivery fee of $10 on the 10 bar stools is not as clear cut. This equates to a delivery fee of $1 per item on each bar stool, which has a cost of $75 per unit. In this case

ISBN 978 1 4202 3058 1

the delivery fee can still be logically traced to an individual stock Item. The only doubt is that would a cost of $1 be viewed as a significant item when each bar stool has a cost price of $75? The decision then basically becomes a matter of opinion—some may argue that a $1 cost should be treated as a product cost as it will affect their decision-making when pricing the goods and making them available for sale. Others may argue that it is not that significant and can simply be written off as a period cost. Therefore, if this was the opinion held, the cost would not be added to the item's stock card. Instead, the $10 would be treated as a period cost and debited to the Cartage Inwards account, which would be subsequently closed off to the Profit and Loss Summary account at the end of the period. There is no definitive percentage or dollar amount that states whether or not an item should be treated as a product cost or a period cost. The two tests that need to be satisfied are:

1 Can the cost be logically traced to an individual stock item?
2 Is the amount per item a significant amount that will affect decision making of the individual?

Materiality and decision-making

One problem with the distinction between product and period costs is that the application of *relevance* is based on opinions about what would affect decision-making. An item may not be deemed to be relevant if it has a very small, insignificant value. However, as items become greater in dollar value they also become more likely to be relevant to decision-making. If an item is only a few cents, it is highly unlikely to affect anyone's decision-making in relation to an item of inventory. The difficulty is: at what dollar value does an item need to be before it is deemed to be relevant to decision-makers? The final decision is one of correctly judging the circumstances under consideration. If in doubt as to whether an item's omission would affect decision-making, it is safer to classify the item as relevant and let those making decisions have the final verdict. One of the basic roles of accounting is to provide financial information for decision-making. The basic purpose of the qualitative characteristic of *relevance* is to ensure that all significant, material information is available so that decision-makers are fully informed. Therefore, when dealing with the cost of an item of inventory, only very small, insignificant amounts should be excluded from the definition of the cost of a particular item.

18.2 Lower of cost and net realisable value

As a basic rule, inventory is always recorded at cost prices. This is the case for both the individual stock cards and for the double entries in the general ledger accounts. However, when it comes to reporting inventory in the final accounting reports, there is an exception to this general principle. In the balance sheet of a trading firm, inventory should be valued at the lower of two alternatives. The first of these is cost price and the second is net realisable value. It is important to understand what each of these two terms mean.

Net realisable value (NRV) is defined as the estimated selling price of a product less any costs incurred in the marketing, selling and distribution of the item. Such costs must be able to be traced on an individual basis to the specific inventory item under consideration. For example, if a firm expects to sell an item for $18 but pays a commission of $3 for each unit sold, the item's net realisable value would be $15. This amount is the net amount expected to be gained by the business from the sale of the item.

The principle of **conservatism** calls on accountants to be prudent or cautious when preparing accounting reports. This principle leads accountants to recognise losses if they are merely

ISBN 978 1 4202 3058 1

expected to occur, but not to recognise revenue until it is actually earned. When reporting on an entity's assets, it is important not to overstate their value. Investors make decisions on accounting information and therefore caution should be exercised when reporting on the financial position of a business. This conservative attitude is relevant to the valuation of inventory on balance day. In some cases stock items may have an estimated net realisable value that is actually lower than the cost paid by the business. This would usually occur only in a minority of cases, but sometimes a business will sell an item for less than it cost to purchase. This may occur because the item of inventory:

- has been superseded by a new model
- has become obsolete—for example, through technological advancements
- is out of season or out of fashion
- is damaged
- is shop-soiled
- is being deliberately sold below cost. This is sometimes done in order to attract customers.

In order to follow the principle of conservatism, inventory is valued at the **lower of cost and net realisable value**. If inventory is expected to be sold for less than the firm paid for it, the net realisable value (NRV) should be used to value that line of inventory. This avoids overstating the value of inventory in the balance sheet. When this rule is being applied, accounting standards demand that both the cost of inventory and its NRV be stated on an individual product basis, rather than total inventory. Of course, in the majority of businesses the cost of total inventory is usually much less than its NRV, as it is normal to sell stock at a profit. Therefore, in order to reveal products where the NRV may be lower than the item's cost, it is necessary to apply the rule on an individual basis. This is not always possible and sometimes stock items may have to be considered in groups of inventory. This is still acceptable according to the accounting standards because examples of NRV being below cost can still be identified, but the consideration of individual inventory items is the most preferred method.

The following example has been created to demonstrate the practical application of the lower of cost and NRV principle.

The management of Essendon Trading has just completed its physical stocktake and determined stock on hand as follows:

Item	Cost $	Quantity	Value $
A	10	400	4 000
B	10	200	2 000
C	20	200	4 000
D	30	300	9 000
Total cost of stock			19 000

The value for stock shown above only takes into account the cost of the firm's inventory. When the NRV of each item is taken into account, a different picture emerges. Consider the following table:

ISBN 978 1 4202 3058 1

Item	Cost $	NRV $	Lower of cost and NRV $	Quantity	Value $
A	10	18	10	400	4000
B	10	7	7	200	1400
C	20	25	20	200	4000
D	30	22	22	300	6600
					16000

Item A cost the firm $10 each and is expected to realise $18 per unit. The lower of these two figures is the cost of $10 and therefore this figure is adopted. The same situation exists for item C, which cost $20 and is expected to be sold for $25. However, items B and D both have an NRV that is lower than their cost prices. The rule of using the lower of cost and NRV means that for these two stock items the NRV must be adopted. The effect of adopting the NRV values is that the cost of inventory was $19000 but, because some stock items will not realise their cost prices, this value must be reduced to $16000. This is done via a general journal entry and for the above example this entry would appear as follows:

Figure 18.1 General journal entry to record a stock write-down

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Dec 31	Stock write-down Stock control Adjusting entry for stock write-down (Memo 45)	3000	3000		

It is important to appreciate that the actual stock card is also affected by the adjustment for a **stock write-down**. As usual, any entry in the stock control account must also be recorded in the relevant stock card. Referring back to the details of inventory item B outlined above, it was stated that there were 200 units on hand with a cost price of $10. However, the NRV of item B was stated only as $7. Therefore, a stock write-down of $3 must be recorded on the stock card of item B. This entry is shown below.

Stock card: item B

Date	Details	In			Out			Balance		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Dec 31	Balance							200	10	2000
Dec 31	Memo 45				200	3	600	200	7	1400

ISBN 978 1 4202 3058 1

The other item that had an NRV lower than its cost price was item D. The cost of this product was $30, but it is expected to realise only $22 when sold. As there were 300 units of item D on hand, the write-down required would be 300 × $8 ($30 – $22 = $8 per unit).

Stock card: item D

Date	Details	In			Out			Balance		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Dec 31	Balance							300	30	9 000
Dec 31	Memo 45				300	8	2 400	300	22	6 600

The general journal entry prepared in figure 18.1 recorded a stock write-down of $3 000. This can be reconciled with the entries in the stock cards shown above. Item B was written down by $600, while item D had a write-down of $2 400, making a total adjustment of $3 000.

In the general ledger the stock write-down account, which is classified as an expense, is closed off to the profit and loss summary account in the usual way. It is shown in the income statement, along with any stock losses identified by the physical stocktake. Both of these items are deducted from the gross profit to determine the adjusted gross profit for the period. This is demonstrated in the following example:

	$	$
Sales		100 000
less cost of sales		40 000
Gross profit		60 000
less stock loss	2 000	
Stock write-down	3 000	5 000
Adjusted gross profit		55 000

The stock control account is written down to the lower value, taking into account the rule of lower of cost and NRV. Using the data from the previous example, it would be recorded as follows:

Stock control a/c

		$			$
Dec 31	Balance	19 000	Dec 31	Stock write-down	3 000
				Balance	16 000
		19 000			19 000
Jan 1	Balance	16 000			

The balance of stock control would then be reported in the balance sheet as follows, once the adjustment has been made to the books.

ISBN 978 1 4202 3058 1

Essendon Trading: balance sheet (extract) as at 31 December 2015

Current assets	*$*
Stock	$16 000

It should be noted that both the income statement and the balance sheet are affected by the adjustment for stock write-downs. The income statement is affected with an adjustment to the gross profit for the period. The balance sheet is affected through the reduction in the Stock Control account (matched with a reduction in owner's equity, due to a lower profit figure). Both final reports are therefore adjusted by the application of the lower of cost and NRV rule. Therefore, there is less likelihood that the profit for the period or the assets of the business at the end of the period have been overstated. This complies with the demands of *conservatism*, which may be viewed as the aim of this rule in relation to inventory valuation. Also, the disclosure of such details in relation to inventory is necessary under the demands of **relevance** (SAC2). If a trading firm has particular units of inventory that are going to realise less than they cost, this information is clearly relevant to the various users of the final reports. The dollar value of such expected losses should be reported so that individual users can evaluate the extent of the problem. In attempting to meet the demands of SAC2 in terms of relevance, accountants should ensure that all relevant information is disclosed in the final reports. Thus it may be argued that the lower of cost and NRV is in line with conservative accounting practice; but more importantly, it helps satisfy the demands of SAC2 as described by the qualitative characteristic of **relevance**.

18.3 Determining the NRV of a product

Inventory is valued at the lower value of its cost and its NRV. The application of this rule has been demonstrated in section 18.2. It demands a comparison of cost price with NRV, which is not simply the selling price of an item. NRV is defined as the estimated selling price of a product, less any costs incurred in the marketing, selling and distribution of the item. In previous examples the NRV was conveniently stated so that it could be compared with cost prices. This may not always be the case. Consider the following example relating to a small business at the end of 2015:

	Quantity	Cost $	Selling price $	Selling costs
Item A	100	5	9	$2 per unit
Item B	200	7	8	$2 per unit

Note: item B was previously sold for $14 each, but has been replaced by a new model that has just been released. Management has decided to cut the selling price to $8 in order to clear all stock held. When the selling costs are taken into account for the above two stock items, the NRV of the stock can be determined as shown on the next page.

ISBN 978 1 4202 3058 1

	Estimated selling price		Selling costs		NRV
Item A	$9	less	$2	=	$7
Item B	$8	less	$2	=	$6

Item A has not had its selling price reduced and its NRV ($7) is expected to be greater than its cost price ($5). Therefore, item A is not affected by the application of the NRV rule. However, item B, which costs $7 each, has a NRV of only $6. This is despite the fact that its selling price ($8) is slightly higher than cost ($7). When the anticipated selling costs are taken into account, the NRV of item B falls below cost. The table below shows a summary of this application of the NRV rule.

Item	Selling price $	Selling expenses $	NRV $	Cost price $	Lower of CP and NRV $	Qty	Value $
A	$9	$2	$7	$5	$5	100	$500
B	$8	$2	$6	$7	$6	200	$1 200
							Total value for stock $1 700

Therefore, a stock write-down would be required in the general journal of this business on balance day. The amount of the write-down is determined by the difference between the cost of item B ($7) and the NRV of the item ($6) multiplied by the number of units on hand (200). Thus, the write-down would be $1 × 200 units = $200. The general journal entry required is shown below, including the memorandum number in the narration.

Figure 18.2 Stock write-down

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Dec 31	Stock write-down	200			
	Stock control		200		
	Adjusting entry for stock write-down (Memo 67)				

ISBN 978 1 4202 3058 1

› GLOSSARY OF TERMS

lower of cost and net realisable value a rule used to value inventory at the lower of two values: that of its cost price and its estimated net proceeds from sale.

materiality test a test used to determine if the value of an item is likely to be relevant, based on whether or not it is likely to affect decision-making. The materiality test also allows very small, insignificant items to be omitted from general purpose reports.

net realisable value (NRV) the estimated selling price of an item of inventory, less any costs incurred in its selling, marketing or distribution. That is, the net proceeds expected from selling the item of inventory.

period cost a cost that is written off as an expense for the reporting period and is not added to the cost of a particular item of inventory.

product cost a cost that is added to the cost price of a unit of inventory. That is, it becomes part of the cost of a particular product in its stock card.

stock write-down a general journal entry that is used to write-down the value of an item of inventory from its cost price to a lower value, due to its anticipated net realisable value being lower than its cost price.

Summary questions

1. Explain the meaning of the term 'cost' as it relates to inventory.
2. Distinguish between a product cost and a period cost.
3. Explain the role played by *relevance* in determining a product's cost.
4. What is the materiality test in relation to the qualitative characteristic of relevance?
5. What is meant by the 'net realisable value' of inventory?
6. State four reasons why an item of inventory may have a net realisable value lower than its cost price.
7. Explain why the lower of cost and NRV should be applied to individual stock items or groups of items rather than total inventory.
8. State the double entry to record a stock write-down.
9. Explain the two-fold effect of stock write-downs on the accounting reports of trading firms.
10. Describe what is meant by the principle of conservatism.
11. Explain the link between the principle of conservatism and the rule of lower of cost and net realisable value.
12. Explain the link between the concept of relevance and the application of the NRV rule.
13. The owner of a small business valued stock on hand at cost at $43 000. When the lower of cost and NRV rule was applied, she found that the value of stock was only $39 000 and that a stock write-down should be recorded. Using the following table, show the two-fold effect of this stock write-down on the firm's balance sheet (show dollar amounts where applicable).

	Increase / Decrease / No effect	$
Assets		
Liabilities		
Owner's equity		

ISBN 978 1 4202 3058 1

Practical exercises

[Exercise 18.1] During the month of July 2015 the owner of Westside Sports, Stan Poppleton, made the following purchases:

Jul 6	Bought on credit five bikes at a cost of $140 each. The bikes were modified before delivery with a computerised speedometer/odometer. The modifications cost $35 per bike.
14	Purchased two dozen Sherrin footballs at a cost of $60 each. The courier that delivered the footballs charged Poppleton a fee of $24 for the delivery.
22	Received a special delivery of 12 soccer balls from Good Sports. These balls usually cost $28 but have been repackaged in special boxes featuring the flags of the nations that compete in the World Cup. This was done as a marketing strategy by Good Sports and the repackaging cost Poppleton $3 per ball.

a For each of the three items Poppleton purchased during July, state the cost price that you would recommend should be recorded on the item's stock card. Justify your answer in each case.

b Explain the difference between a product cost and a period cost. Use examples from Westside Sports to help clarify your answer.

[Exercise 18.2] Doreen's Department Store sells a range of household appliances. On 1 October 2015 Doreen received a delivery of toasters from one of her creditors. The invoice included the following details:

10 Golden toasters @ $25	$250
plus cartage	30
Invoice sub-total	280
plus GST	28
Invoice total	$308

On 1 November 2015 Doreen received another delivery. The invoice sent with the goods on this occasion included the following:

10 Hotshot grillers @ $40	$400
10 Versatile blenders @ $28	280
15 Cappuccino machines @ $40	600
plus cartage	30
Invoice sub-total	1 310
plus GST	131
Invoice total	$1 441

ISBN 978 1 4202 3058 1

a At what cost should the toasters purchased in October be recorded in the stock card? Explain your answer fully, including your treatment of the cartage fee and the GST.

b At what cost would you record the grillers that were delivered in November? Justify your answer.

c Is there any difference in your treatment of the cartage in October compared with that paid in November? Explain your answer fully, with reference to a qualitative characteristic of Accounting.

[Exercise 18.3]

A1 Electricals is a retail store that sells the Deluxe 500 L refrigerator. The following financial details have been provided for your information:

Invoice price of the Deluxe 500 L refrigerator	$600
Advertising	$4 800 per annum
Customs duty payable	10% of purchase price
Insurance of stock	$1 500 per annum
Cartage in expenses	$40 per refrigerator
Cartage out expenses	$20 per refrigerator
Average mark-up on refrigerators	75%
Commission paid on sales	5%

a Select the relevant details from above and calculate the dollar amount that should be recorded as the cost of one Deluxe 500 L (500 litre) refrigerator.

b Explain your treatment of the items 'cartage in' and 'cartage out'.

c Explain the difference between a 'product cost' and a 'period cost'. Use examples from the above information in your answer.

d During August 2015 the business sold 10 Deluxe 500 L refrigerators. Prepare an income statement to show the net result of selling 10 fridges. (Note: the 75% mark-up is applied to the total product cost of each fridge.)

[Exercise 18.4]

Skipper's Office Supplies has decided to stock a new line of inventory, the Pro-plus Printer, which will be purchased in lots of 10 units at a time. As a special promotion, the owner of the business, Tonee Skipper, has included an extra printer cartridge with each printer. She has also had the printers repackaged in an attempt to promote sales. All printers are delivered once a month by the supplier, the Global Printer Company. Details of the price structure for this stock line are as follows:

Supplier's price	$90	GST $9
Extra cartridge	$20	GST $2
Packaging costs	$10	GST $1
Estimated selling price	$140	GST $14
Delivery costs per month	$100 (covers all stock)	

ISBN 978 1 4202 3058 1

a What cost price would you record in the stock card for the Pro-plus printer? (Show all workings).

b Explain your treatment of the GST payable on the stock purchased.

c Distinguish between product and period costs, with reference to an example of each from the above information.

[Exercise 18.5]

The following information relates to three different stock items in a trading firm:

Item	Quantity	Cost price $	Estimated selling price $
101	2 000	8	12.50
102	1 000	7	11.00
103	3 000	12	10.00

a Determine the cost of inventory that should be determined as a result of a physical stocktake.

b Complete the following table, using the lower of cost and net realisable value rule:

Item	Cost price $	Net realisable value $	Lower of cost and NRV $	Quantity	Value $
101					
102					
103					
Total					

c Prepare the general journal entry to adjust the books of the business for a stock write-down, as noted by Memo 47.

d State the value that would be reported for stock in the balance sheet of the firm on 30 June 2015.

e Show how the stock write-down would be recorded in the stock card of item 103.

f Explain the effect of the stock write-down on the income statement.

ISBN 978 1 4202 3058 1

[Exercise 18.6] The information listed below relates to the inventory of Better Products on 30 September 2015.

Item	Quantity	Cost price $	Estimated selling price $	Marketing costs per unit $
A	800	5	9	2.00
B	600	4	4	2.00
C	1 000	9	16	3.00
D	1 800	8	14	2.50

a Calculate the value of stock on hand at cost price.

b Determine the net realisable value for each line of inventory.

c Prepare a table to show the application of the lower of cost and NRV rule.

d Prepare the general journal entry to record the adjustment for a stock write-down, evidenced by Memo 33.

e Show how the stock write-down would be recorded in the stock card of item B.

f Show how inventory would be reported in the balance sheet of Better Products on 30 September 2015.

[Exercise 18.7] The management of the Melbourne Trading Centre has supplied the following details relating to its inventory items as at 31 December 2015:

Item	Quantity	Cost price $	Estimated selling price $
AB04	500	14.50	19.50
AB15	1 200	10.80	11.50
BX82	3 400	16.00	22.00
BX83	2 000	16.50	17.00
L032	3 250	12.40	16.50

Note: this business sells all of its stock on a commission basis. A payment equal to 10% of the selling price of each item is paid when goods are sold.

a Taking into account the sales commission that must be paid, calculate the net realisable value for each inventory item.

b Prepare a table to calculate the value of inventory under the lower of cost and net realisable value rule.

c Prepare the stock write-down entries in the stock cards of all items affected by the application of the lower of cost and NRV rule (Memo 56).

ISBN 978 1 4202 3058 1

d Prepare a balance sheet extract to show how inventory would be reported as at 31 December 2015.

e Explain the relationship between the principle of conservatism and the lower of cost and NRV rule.

[Exercise 18.8] Joe Lanzon is the owner of Newport Kitchen Supplies, a small business that sells a variety of kitchen products, including a range of coffee percolators in different sizes. Lanzon has provided the following information as at 30 June 2015 in relation to his stock of percolators:

Size	Quantity as per stock card	Quantity as per stocktake	Cost price	Normal selling price	Estimated NRV
4 cup	100	100	$12	$19	$19
6 cup	120	115	$18	$28	$25
8 cup	80	82	$20	$29	$29
10 cup	160	150	$25	$35	$32
12 cup	180	180	$28	$39	$25

a Using the relevant information from the above table, calculate the value of the overall stock loss or gain to be recognised on 30 June 2015.

b The recognition of a stock loss or gain can be justified by two different qualitative characteristics of accounting. State the names of these two qualitative characteristics and explain how they justify the recording of a stock loss or gain.

c Calculate the value of the stock write-down required on 30 June 2015.

d Explain why a stock write-down should be recorded on balance day, with reference to the relevant accounting principle.

e Prepare the general journal entry to record the stock write-down required.

f Taking into account all relevant information from that stated above, determine the balance of stock control reported in the balance sheet for Newport Kitchen Supplies as at 30 June 2015 (show all workings).

ISBN 978 1 4202 3058 1

CASE STUDY

SHANE NOONAN is the owner of McKillop Trading, a retail outlet that sells a range of household appliances. Noonan closes his books annually on 31 August. The following extracts have been provided from some of the stock cards used in his business:

STOCK ITEM: PREMIER 30 CM TV
VALUATION METHOD: FIFO

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Aug 23	Rec. 4334				2	150	300	6	150	900
26	Rec. 4342				1	150	150	5	150	750
28	Rec. 4351				2	150	300	3	150	450

STOCK ITEM: PENDULUM PLUS COMPUTERS
VALUATION METHOD: FIFO

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Aug 25	Inv. 2132				2	1 200	2 400	5 8	1 200 1 300	6 000 10 400
27	Rec. 4345				1	1 200	1 200	4 8	1 200 1 300	4 800 10 400
30	Inv. 2138				2	1 200	2 400	2 8	1 200 1 300	2 400 10 400

STOCK ITEM: DELUXE 500 LITRE REFRIGERATORS
VALUATION METHOD: FIFO

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Aug 22	Rec. 4332				1	800	800	1 3	800 850	800 2 550
26	Rec. 4344				1 1	800 850	800 850	 2	 850	 1 700
30	Inv. 32193	6	850	5 100				8	850	6 800

ISBN 978 1 4202 3058 1

ADDITIONAL INFORMATION:

- A stocktake performed on 31 August 2015 revealed that only two Premier colour TVs were in stock (Memo 21).
- A new model of computer has just hit the market. Noonan has reviewed his computer stock and decided that he must clear the stock as soon as possible. The stock on hand will soon be obsolete and therefore his units of the Pendulum Plus computer will be sold for $1 100 each in a clearance sale, starting in early September 2015 (Memo 22).
- The customer who purchased the two refrigerators on 26 August paid $1 300 per unit, plus GST of $130. Unfortunately, he has decided that he now only needs one of them. As he is a very good customer of the business and the item is still in perfect condition, Noonan decided to give him a credit note for the full price charged for the item. This decision was made and carried out on 31 August (Credit note no. 112 issued to A. Leishman).
- Three of the refrigerators delivered on 30 August are special models. They are exactly the same size as the other three refrigerators, but have been specially painted in football logos as a marketing exercise. The hand-painting of the refrigerators cost Noonan $100 each, plus GST of $10. As he was unsure how to record the $300, he decided to debit the Advertising expense account $300 and debit the GST Clearing account $30.

a Prepare the relevant general journal entries on 31 August to account for all of the above events.

b Justify your treatment of the value of the computers. Refer to one accounting principle and one qualitative characteristic in your answer.

c What cost price did you use for the return of the refrigerator? Justify your choice.

d Comment on the treatment of the painting of the football logos on the fridges. Do you agree with Noonan's treatment of the $300? Justify your answer with reference to a qualitative characteristic of accounting.

e State the value of stock on hand for each of the three stock items after the adjustments you have made via the general journal in part **a**. State quantity, value and total value on hand for each item.

ISBN 978 1 4202 3058 1

Chapter 19

Balance day adjustments: prepaid revenue and accrued revenue

OBJECTIVES

At the completion of this chapter, you should be able to:

- outline the meaning of the terms 'prepaid revenue' and 'accrued revenue'
- prepare balance day adjustments in the general journal for both prepaid revenue and accrued revenue
- prepare entries in the general ledger for prepaid revenue using the liability approach
- describe the two-fold effect that adjustments for prepaid revenue and accrued revenue have on the balance sheet
- explain the effect that balance day adjustments for prepaid revenue and accrued revenue have on the income statement
- describe the treatment of accrued revenue in a subsequent period when the revenue is actually received
- prepare general ledger entries showing the recording of a receipt of accrued revenue in a subsequent period
- prepare accounting reports, taking into account balance day adjustments for prepaid revenue and accrued revenue.

ISBN 978 1 4202 3058 1

19.1 What is revenue earned for a period?

The definition of profit under accrual accounting is revenue earned in a particular period less expenses incurred within that same period of time. Earlier in this text, the question of balance day adjustments for expenses was raised (see chapter 14). Adjustments were made for expenses paid in advance (prepaid expenses), expenses not yet paid (accrued expenses) and stock losses or gains. All such adjustments were made in order to make the account balances equal to the amounts incurred during a period, rather than simply reflecting the amounts paid during that period. The same scenario exists in relation to the revenue of a business. When a trial balance is prepared, the accounts will usually reflect the cash transactions that have taken place within the reporting period. In a simple small business, the cash received may well equal the revenue earned for the period. Some businesses only sell for cash and the situation is not at all complex. The goods are provided and the cash is received. Therefore the balance of the cash sales account may well equal the revenue earned for the period.

However, this is not always the case. Take the example of an airline. Bookings are made well in advance for trips that passengers plan to take in the future. Cash is paid up-front and the airline has simply accepted the money for a future booking. That is, cash is paid in advance with the promise of something in the future. At any point in time, this type of business may hold thousands of dollars of cash that has not yet been earned. Should this be treated as revenue? The principle of accrual accounting says no, as the business has not yet fulfilled its obligations. That is, the business has not yet earned its revenue.

A second scenario occurs when a business has earned revenue but has not yet received it. If a business has cash invested in a term deposit but does not receive interest until the maturity date, there will not be any interest revenue recorded as having been received during the period. Should this revenue be ignored simply because it has not yet been received? Accrual accounting demands that all revenue earned is reported in the income statement. But revenue that has not yet been received will not show up in a trial balance when the accounts are checked at the end of the period. This situation also needs to be taken into account before determining the profit of a business.

It is possible that, in a given period, some revenue will be received in advance and some revenue may not be received at all. It may therefore be necessary to introduce some adjustments on balance day in order to determine revenue earned for that period. This follows the qualitative characteristic of relevance, as revenue earned is clearly relevant to decision-making for the current reporting period. The aim of accrual accounting is to match revenue earned with expenses incurred. The aim of this chapter is to demonstrate how to account for both **prepaid** and **accrued revenues** while satisfying this definition of accrual accounting.

19.2 Prepaid revenue (the liability approach)

Sometimes a business may receive revenue in advance of performing services or supplying goods to its customers. That is, the revenue received during one reporting period includes amounts that have been prepaid for a subsequent reporting period. The **liability approach to prepaid revenue** stipulates that, as some of the revenue received relates to a future reporting period, it should not be included in the current period's profit calculation. Although an inflow of resources may appear to qualify under the SAC2 definition of revenue, if it has been received in advance the firm has actually created an obligation of future economic sacrifice. This appears to fit the SAC2 definition of a liability. This liability may be in the form of goods or services to be

ISBN 978 1 4202 3058 1

provided in the future or, in the event of the firm being unable to fulfil its obligations, it can be in the form of a cash refund. This problem is similar to the dilemma of prepaid insurance and the question of whether it is an asset or an expense. As was demonstrated earlier in this text, it is all a matter of timing. An asset does become an expense as it is sacrificed or consumed. Thus, insurance paid in advance is treated as an asset (prepaid insurance) because it has future economic value. As it is used up, the asset prepaid insurance is eliminated and the amount is transferred to the expense account insurance, as it is now viewed as a sacrifice of resources during the period.

In the case of revenue received in advance, a future commitment is created and therefore a liability exists. As this commitment is fulfilled, the liability will be eliminated and the revenue can then be recognised as being earned. Prepaid revenue is simply revenue received but not yet earned. Prepaid revenue, or revenue received in advance, may be unusual for many small businesses. However, some firms do receive their money in advance of goods or services being provided. Consider the case of a bus company that offers prepaid interstate fares. As the prepaid fares represent a liability to the business, the fares received will be credited to a liability account when the cash is received. This liability account should have a descriptive title, such as 'prepaid bus fares', to indicate the nature of what is being received. The focus then switches to the adjustment required on balance day. Accrual accounting requires that revenue earned is matched with expenses incurred, but the bus fares have been credited to a liability account when they were received. The next step is to transfer out of the liability account the amount of revenue that has been earned during the current period. The following details are provided as an example.

Total bus fares received during 2015:	$90 000
Bus fares paid in advance for trips in 2016:	$10 000

Using these details, the following summary represents the situation on balance day:

Total bus fares received:	$90 000
Bus fares revenue earned in 2015:	$80 000
Prepaid bus fares for 2016:	$10 000

Only $80 000 of the $90 000 total revenue received should be recognised as revenue for 2015. The other $10 000 remains as a liability because it represents a future commitment or obligation of the business. The prepaid bus fares account has been prepared below, with entries for both the original cash receipts and the necessary adjusting entry to the account on 31 December 2015:

Prepaid bus fares revenue a/c

2015		$	2015		$
Dec 31	Bus fares revenue	80 000	Jan–Dec	Cash at bank	90 000

Bus fares revenue a/c

			2015		
			Dec 31	Prepaid bus fares	80 000

ISBN 978 1 4202 3058 1

The adjusting entry has the purpose of transferring the amount of revenue earned from the liability account (prepaid bus fares) to the revenue account (bus fares revenue). The end result is that the revenue account now has the revenue earned for the period, ready to be closed off to the profit and loss summary account. The liability account can then be balanced, ready to be reported in the firm's balance sheet. The closing of the revenue account and the balancing of the prepaid bus fares account are shown below:

Prepaid bus fares revenue a/c

		$			$
2015			2015		
Dec 31	Bus fares revenue	80 000	Jan–Dec	Cash at bank	90 000
	Balance	10 000			
		90 000			90 000
			2016		
			Jan 1	Balance	10 000

Bus fares revenue a/c

2015			2015		
Dec 31	P&L summary	80 000	Dec 31	Prepaid bus fares	80 000

As usual, all general ledger entries must be journalised before being posted to ledger accounts. The adjusting and closing entries for the example of prepaid revenue shown above have been prepared in figure 19.1.

Figure 19.1 **General journal adjusting and closing entries for prepaid revenue**

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Dec 31	Prepaid bus fares Bus fares revenue Adjusting revenue for bus fares earned this period	80 000	80 000		
Dec 31	Bus fares revenue P&L summary Closing entry	80 000	80 000		

This treatment of prepaid revenue accords with SAC2 in terms of **relevance**. Under accrual accounting the fares that have been received in advance for 2016 ($10 000) are not relevant to the reporting period that concludes on 31 December 2015. They should therefore be excluded from the income statement for that reporting period. Such fares will remain in the liability account until such time as the firm's obligations have been fulfilled. When the prepaid customers take

ISBN 978 1 4202 3058 1

their holidays, the revenue will be transferred from the liability account to the revenue account. This means that the **revenue** will be recognised in the same period in which the *expenses* of the bus trips will be incurred, thereby satisfying the demands of accrual accounting. This practice of not recognising revenue until it is earned, as well as matching revenue against the relevant expenses, allows for an accurate measure of profit to be determined for the reporting period.

The above example was written to demonstrate how prepaid revenue should be treated on balance day. However, it is important to keep in mind that when revenue is received (including prepaid revenue) a business may also receive an amount of GST. In the case shown above, the prepaid bus fares received were $90 000. Applying the 10% GST to this amount would mean that the business would have actually received a total of $99 000, consisting of $90 000 for the actual bus fares, plus $9 000 GST. The VCE Accounting course also requires you to know how to record such an item in the cash receipts journal at the time the cash is received. It is possible that a bus company that is constantly receiving bus fares in advance may have a special column for such receipts in their cash receipts journal. In this case, the bus fare received in advance would be recorded as shown in figure 19.2.

Figure 19.2 Cash receipts journal to record the receipt of prepaid revenue: example 1

Date	Details	Rec. no.	Bank $	Debtors $	Prepaid bus fares $	Sundries $	GST $
Jan–Dec	Prepaid bus fares		99 000		90 000		9 000

If a business receives revenue in advance and does not have a special column for such an event, the Sundries column should be used in the usual fashion. Using the same data as that shown previously, the entry in the receipts journal would then be as shown in figure 19.3. Note: the receipts journal has been modified so that it has different columns from the previous example.

Figure 19.3 Cash receipts journal to record the receipt of prepaid revenue: example 2

Date	Details	Rec. no.	Bank $	Debtors $	Comm'n revenue $	Sundries $	GST $
Jan–Dec	Prepaid bus fares		99 000			90 000	9 000

19.3 Prepaid sales revenue

The scenario for prepaid revenue demonstrated above related to a revenue item that was paid for in advance for a particular service (that is, bus fares). Trading businesses may receive revenue in advance in a variety of circumstances and it is important to be able to account for all such scenarios, including that of prepaid sales revenue. For most trading businesses it is not usual to receive all of its revenue in advance as most customers prefer to receive goods at the time of payment. However, in some industries a deposit may be made by a customer to secure an

ISBN 978 1 4202 3058 1

order and, if this has been received in advance of receiving their goods, it represents a liability to the business at that time. A business may well issue a receipt at the time a deposit is made and this may be followed up with a sales invoice when the goods are delivered. These source documents are important as they help determine how such financial events will be recorded.

Consider the following scenario: Cara Johnston owns Peninsula Furniture, a small business that makes a range of furniture to the specifications of the customer. The following events took place:

Jun 1 Hillside Motel placed an order for 20 coffee tables at a price of $200 each, plus $20 GST. Total of the order: $4 000, plus $400 GST.

Johnston required a deposit of 20% of the selling price to secure the order and wrote receipt no. 43 for $800.

Jun 30 Johnston delivered the 20 coffee tables to Hillside Motel, along with Invoice no. 160 for the amount owing, as shown below (the cost of the sale was determined to be $1 800):

20 coffee tables @ $200 each	$4 000
plus 10% GST	$ 400
Total of order	$4 400
less deposit	$ 800
Total now due	$3 600

July 15 Hillside Motel sent a cheque for $3 600 (Receipt 56).

This series of events would be recorded in the books of Peninsula Furniture as shown below. The first step is to record the receipt of the deposit, as demonstrated in figure 19.4:

Figure 19.4 **Cash receipts journal to record a deposit on prepaid sales**

Date	Details	Rec. no.	Bank $	Debtors $	Prepaid sales $	Sundries $	GST $
Jun 1	Prepaid sales revenue	43	800		800		

It is important to note that there is no GST being recorded in this entry. The $800 received from Hillside Motel is simply to secure the order and ensure that Peninsula Furniture proceeds with the order and works towards completion. At this point no goods have been provided and no revenue has been earned. Therefore, the entry in the cash receipts journal creates the liability account **prepaid sales revenue**. Having received $800 in advance from the customer, Peninsula Furniture now has an obligation to provide goods to Hillside Motel. If it cannot fulfil the order, a cash refund may be due to the customer. Therefore, a liability account exists at this stage. On 30 June the goods are then delivered, along with a sales invoice. This will therefore create a need for an entry in the sales journal of Peninsula Furniture. Assuming that this date is also the end of the reporting period, a balance day adjustment is required to transfer the prepaid sales revenue (the deposit) to the sales revenue account. Figure 19.5 shows the adjusting entry required on 30 June.

ISBN 978 1 4202 3058 1

Figure 19.5 General journal entry to adjust for prepaid revenue now earned

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Jun 30	Prepaid sales fares Sales revenue Adjusting revenue for sales revenue earned this period	800	800		

The above entry recognises that, as the coffee tables have now been provided to the customer, the liability of the Peninsula Furniture no longer exists and that the $800 can now be recognised as revenue earned for the period. This entry however does not complete the full series of events, as the customer was also issued with an invoice on 30 June. This document specified the full charge to the customer ($4000 plus $400 GST), the deposit already paid ($800) and the amount that remains outstanding ($4400 – $800 = $3600).

Figure 19.6 shows the required entry in the sales journal on 30 June:

Figure 19.6 Credit sales journal entry after deducting a deposit received

Date	Debtor	Inv. no.	Cost of sales $	Sales $	GST $	Debtors control $
Jun 30	Hillside Motel	160	1800	3200	400	3600

The entry in the sales journal shown above may look like a standard entry for a credit sale but there is one noticeable difference. Usually in such an entry, the GST column has a dollar value equal to 10% of the Sales column. However, this is not the case in the above entry for Hillside Motel. This is simply because $800 of sales revenue has already been received by the business in the form of the deposit made on 1 June. As shown in the previous calculation, the customer owes a total of $3600 to Peninsula Furniture and this amount is reflected in the above entry. Having recorded the credit sale and the balance day adjustment for the prepaid revenue (the deposit) the final transaction to be recorded would be the cash receipt on 15 July. As Hillside Motel became a debtor of Peninsula Furniture on 30 June (when the invoice was issued) the final payment of $3600 would be recorded in the cash receipts journal in the usual way, as shown below:

Figure 19.7 Cash receipts journal to record the final customer payment

Date	Details	Rec. no.	Bank $	Debtors $	Prepaid sales $	Sundries $	GST $
Jul 15	Hillside Motel	56	3600	3600			

ISBN 978 1 4202 3058 1

19.4 Accrued revenue (revenue owing)

Another situation that may exist on balance day arises when a business has earned revenue during the reporting period but has not yet received it. If the revenue-earning process has been completed, the principles of accrual accounting demand that the revenue be recognised as having been earned. Consider the case of a business that invested $20 000 for six months on 1 July 2015 at 10% per annum, payable on 2 January 2016. If this business has its balance day on 31 December 2015, the trial balance will not show a balance in the interest revenue account because interest would not be received during 2015. However, the firm has earned $1 000 of interest in the reporting period of 2015 (10% of $20 000 = $2 000 interest per annum or $1 000 interest for six months). In this case, the double entry for the balance day adjustment would be as follows:

Interest revenue a/c

		$			$
			2015		
			Dec 31	Accrued interest revenue	1 000

Accrued interest revenue a/c

2015					
Dec 31	Interest revenue	1 000			

The adjusting entry shown above has two functions. First, it increases the revenue account so that the revenue equals the amount earned for the period. Second, it creates a temporary asset account for the purposes of reporting in the balance sheet. Accrued revenue represents revenue that has been earned but has not yet been received. Therefore it is a future economic benefit to the business and should be reported as a current asset in the balance sheet. The interest revenue account would then be closed off to the profit and loss summary account, as follows:

Interest revenue a/c

		$			$
2015			2015		
Dec 31	P&L summary	1 000	Dec 31	Accrued interest revenue	1 000

After the balance day adjustment has been entered in the interest revenue account, the balance of the account represents the interest revenue earned for the period. This is then closed off to the profit and [oss summary account as part of the profit-determination process. This completes the process for the current reporting period. The adjusting and closing entries for the above example are shown in the general journal in figure 19.8.

ISBN 978 1 4202 3058 1

Figure 19.8 **General journal adjusting and closing entries for accrued revenue**

Date	Details	General ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Dec 31	Accrued interest revenue	1 000			
	Interest revenue		1 000		
	Adjusting revenue for six months' interest earned but not received				
Dec 31	Interest revenue	1 000			
	P&L summary		1 000		
	Closing entry				

It is important at this stage to also consider the treatment of accrued revenue in the subsequent reporting period. In the above example, an accrued interest revenue account was created for the interest earned during 2015. The $1 000 listed at that time would be reported in the balance sheet as a current asset. This revenue would be received some time in the next reporting period (in this case, on 2 January 2016). When the revenue owing is actually received, it must not be recorded as revenue in the new period. The following entries will ensure that the revenue will be correctly recorded and reported for both 2015 and 2016.

On 2 January 2016:		
Cash at bank	$1 000 Dr	
Accrued interest revenue		$1 000 Cr

Of course, as this item is a cash receipt it would be recorded in the cash receipts journal as usual, along with the firm's other cash receipts. However, it is vital that the receipt of $1 000 is not credited to interest revenue, as this $1 000 belongs to 2015. To help ensure that this occurs, on balance day an account with a descriptive title, such as 'accrued interest revenue', should be used rather than one with a generic title such as 'accrued revenue'. This will allow for the easy identification of the revenue owing and, when it is received in the subsequent reporting period, the accrued account can be eliminated quite easily. When the cash receipt of the interest occurs, the accrued interest revenue account will appear as follows:

Accrued interest revenue a/c

		$			$
2015			2016		
Dec 31	Interest revenue	1 000	Jan 30	Cash at bank	1 000

Sometimes, when accrued revenue is received in a subsequent reporting period, it may be part of a larger cash receipt. This payment may also include some revenue that relates to the new period, in addition to the amount owing from the previous period. For example, in the above account $1 000 was the interest owing from the previous period. This amount was then received in the subsequent reporting period. However, you should also be prepared to record the receipt of revenue in excess of this amount. To demonstrate this situation, the following example has been created:

Commission earned during June 2015 but not received	$500
Commission received on 31 July 2015 (including the $500 owing)	$600 (plus $60 GST)

The $600 received on 31 July can be broken into two parts: $500 is the amount owing from the previous reporting period and the $100 relates to commission earned during the new period. In this case, it is important to record the two amounts separately. First, the $500 owing should be closed off in the asset account. The second part of the transaction is to record the other $100 in the commission revenue account for the new period. The GST received should be recorded in the usual way. The following entries are therefore the result:

Accrued commission revenue a/c

		$			$
Jun 30	Commission revenue	500	Jul 31	Cash at bank	500

Commission revenue a/c

			Jul 31	Cash at bank	100

GST clearing a/c

			Jul 31	Cash at bank	60

Assuming that the $600 of commission revenue was received as the one amount, it is important to record this receipt correctly in the cash receipts journal. The total amount must be split between the receipt of the amount owing (the accrued revenue) and the receipt of the revenue for the new period. There are two possibilities in this situation, depending on whether or not the business owner has a designated column for commission revenue in the cash receipts journal. If a special column exists, the transaction would be recorded as in figure 19.9.

Figure 19.9 Cash receipts journal to record the receipt of accrued revenue using a special column for commission

Date	Details	Rec.no.	Bank $	Sales $	Commission $	Sundries $	GST $
Jul 31	Accrued commission revenue	65	660			500	60
	Commission revenue				100		

Note that the full amount received ($660, including GST of $60) should be recorded in the bank column, as this is the actual amount of cash received on 31 July. The amount that relates

ISBN 978 1 4202 3058 1

to the amount owing from the previous period should then be listed as accrued commission revenue in the details column. The amount should be shown in the sundries column to ensure that it is not accidentally recorded as revenue in the new period. The next step is to then record the amount of commission revenue that relates to the new reporting period (that is, the $100). This should be included in the special column designated for commission, as this will be posted to the revenue account at the end of the month. Of course, the payment of $60 GST must be recorded in the cash receipts journal in the usual way.

The other complication could occur if an owner does not use a multi-column receipts journal with a special column for commission. This means that commission would be shown in the sundries column, as is the case with the amount of accrued commission. It is vital that in this scenario the two dollar values are recorded separately, as one relates to an asset account (accrued revenue) and the other is a revenue item. A journal without a special column for commission has been prepared in figure 19.10.

Figure 19.10 Cash receipts journal to record the receipt of accrued revenue (no special column available)

Date	Details	Rec.no.	Bank $	Debtors $	Sales $	Sundries $	GST $
Jul 31	Accrued commission revenue	65	660			500	60
	Commission revenue					100	

Note that $660 is still recorded in the bank column, as this is the total amount of cash received. The only difference in the above journal from the previous example is the absence of a column for commission, meaning that the amount of revenue received for the new period has to be entered in the sundries column. You should familiarise yourself with both possibilities in relation to accrued revenue. When accrued revenue is received in the subsequent reporting period, the way it is recorded in a receipts journal will depend entirely on the design of the journal itself.

› GLOSSARY OF TERMS

accrued revenue revenue that has been earned but not yet received.

prepaid revenue revenue that has been received in advance but not yet earned.

liability approach to prepaid revenue a method of accounting for prepaid revenue whereby the initial receipt of revenue is treated as a liability, with a subsequent transfer of the amount earned to a revenue account.

ISBN 978 1 4202 3058 1

Summary questions

1. Explain what is meant by the term 'prepaid revenue'.
2. How is prepaid revenue classified in a balance sheet? Justify this treatment.
3. Explain what is meant by the 'liability approach' to recording prepaid revenue.
4. If a business involved in publishing magazines uses the liability approach to recording prepaid subscriptions revenue, state the double entry required on balance day to adjust for revenue earned.
5. If an adjusting entry for prepaid revenue were not made on balance day, would profit be overstated or understated? Explain your answer fully.
6. What is accrued revenue? How is it classified in a balance sheet?
7. A business has earned commission revenue during a period but has not received it by balance day. State the double entry required as a balance day adjustment to account for this item.
8. The commission earned in question **7** was received in the first week of the subsequent reporting period. State the double entry that will be made when the commission is received by the business.
9. Complete the following table to show the effect on the accounting equation of an adjusting entry for accrued revenue of $200.

Item	Increase or Decrease or No effect	$
Assets		
Liabilities		
Owner's equity		

10. **a** A business earned $600 interest in 2015 but did not receive the interest during that year. The owner made an adjusting entry for accrued interest revenue of $600 on 31 December 2015. During January 2016 the interest of $600 was received. The owner made a debit to cash at bank and a credit to interest revenue. For the reporting period ended 31 December 2016, complete the following table to show the effect of this error.

Item	Overstated or Understated or No effect	$
Assets		
Liabilities		
Owner's equity		

b State the double entry that the owner should have made in part a when the interest of $600 was received.

ISBN 978 1 4202 3058 1

Practical exercises

[Exercise 19.1]

Prestige Suits sells quality custom-made suits on a prepaid basis. In the quarter ended 31 March 2015, the business received $42 000 in advance payments for suits. Of this amount, $4 000 relates to suits to be delivered in the month of April 2015. The business uses the liability approach to recording revenues received in advance.

a State the amount of revenue that would be reported for the quarter ended 31 March 2015 under accrual accounting.

b Prepare the general journal entries required to record the adjusting and closing entries relating to the sales revenue for the quarter.

c Prepare all the relevant entries for the quarter ended 31 March 2015 that would be made to the Prepaid Sales Revenue and Sales Revenue accounts.

d State, and explain, the effect on the firm's reports if the balance day adjustment was not recorded.

[Exercise 19.2]

The following account appeared in the general ledger of City Real Estate:

Prepaid rental revenue a/c

	$			$
		2014		
		Jul 1	Balance	5 000
		2015		
		Jul–Jun	Cash at bank	90 000

On 30 June 2015 the manager of the business determined that the prepaid revenue totalled $8 000.

a Explain what the $5 000 balance shown in the above account represents on 1 July 2014.

b Prepare the adjusting and closing entries in the general journal on 30 June 2015.

c Prepare the prepaid rental revenue account and post all general journal entries prepared in part **a**.

[Exercise 19.3]

Canopies for Utes sells custom-made modifications for utility vehicles. Because of the nature of the business, it always requires customers to prepay all orders. During the year ended 30 September 2015, the business had received a total of $234 000 from its customers. The manager of the business has determined that $222 000 of this amount had been earned by the end of the reporting period.

a Prepare the relevant adjusting and closing general journal entries on 30 September 2015.

b Prepare the two accounts affected by your adjusting entry in part **a**, showing all relevant entries.

c Is the balance sheet affected by your adjusting entry in part **a**? If so, state the two-fold effect of the adjusting entry.

d State the effect of your adjusting entry in part **a** on the firm's income statement.

ISBN 978 1 4202 3058 1

[Exercise 19.4]

Jannus Uchi owns a business that publishes *Teen Magazine*. Subscribers to the magazine must pay $120 per year, plus GST of $12, for 12 issues. During the year ended 30 June 2015 Uchi had received a total of $52 800, consisting of subscriptions of $48 000 and GST of $4 800. On balance day Uchi has established that $12 000 of the revenue received has not yet been earned.

a Prepare the entry in the cash receipts journal to show how the $52 800 will be recorded when the cash is received.

b Complete the necessary adjusting and closing entries in the general journal on 30 June 2015.

c Prepare the Prepaid Subscriptions Revenue account and the Subscriptions Revenue account, showing all entries for the period ending 30 June 2015.

d How should the $12 000 be reported on 30 June 2015? Explain your answer fully, with reference to the relevant SAC2 definitions of balance sheet terms.

[Exercise 19.5]

Beds 'R' Us received an order for 10 single beds at a price of $450 each, plus GST, from Downtime Holiday Resort on 11 November 2015. The customer paid a deposit of $500 on this date to confirm the order. Receipt no. 53 was issued to the customer. No GST was received at the time the order was confirmed. The cost price of the beds was $250 each.

On 28 December 2015 Beds 'R' Us delivered the 10 beds to Downtime Holiday Resort and issued Invoice no. 726 for $4 500, plus GST of $450, less the deposit already received in November. The reporting period for this business ends on 31 December each year.

a Prepare the cash receipts journal entry required on 11 November to record the deposit received from Downtime Holiday Resort.

b Record the relevant entry in the Sales Journal on 28 December 2015 when the delivery was made to the customer.

c Prepare the required balance day adjustment in the general journal on 31 December 2015 in relation to the prepaid revenue received by Beds 'R' Us.

[Exercise 19.6]

Peter Mitchell is the owner of Mitchell Education, a small business which provides a range of educational teaching aids. The reporting period for Mitchell's business runs from 1 July to 30 June each year. Kealba College recently ordered 20 whiteboards from Mitchell Education. The order was placed, along with a deposit of $2 000, on 14 April 2015. The selling price of the whiteboards was $800 each (plus GST), while the cost price was $370 each (plus GST). On 24 June 2015 the 20 whiteboards were delivered to Kealba College and Invoice number 1763 was issued by Mitchell Education.

a Prepare the cash receipts journal entry required to record the deposit received from Kealba College.

b Prepare the adjusting entry required on 30 June to transfer prepaid revenue to the sales revenue account.

c Record the relevant entry in the sales journal on 24 June when Invoice number 1763 was issued.

ISBN 978 1 4202 3058 1

[Exercise 19.7]

The owner of Pearson Electronics, Belinda Pearson, has asked for your assistance in recording some of her recent transactions with one of her customers. On 12 August 2015 Pearson accepted an order to provide 10 data projectors to Colbe University at a price of $3 200 per projector, plus $320 GST. Pearson agreed to provide the goods required but required a payment of 10% of the selling price to secure the order. This was received from Colbe University on 14 August 2015 and Receipt no. 97 was sent to the customer. The reporting period for Pearson Electronics concludes on 30 September each year. A mark-up of 100% is applied to all goods sold by this business.

Pearson has had difficulty getting stock delivered to her business in recent times and the data projectors required by Colbe University are in short supply. However, by 30 September she has managed to secure six units and these were delivered to Colbe on this date, along with following document:

PEARSON ELECTRONICS
9189 BELL STREET
COBURG

ABN: 31 789 756 433
DATE: 30/9/2015
TAX INVOICE NO: 746

CHARGE: COLBE UNIVERSITY

FOR: 6 DELUXE DATA PROJECTORS @ $3 200 PER UNIT	$19 200
PLUS GST	1 920
SUB-TOTAL	$21 120
LESS DEPOSIT RECEIVED	3 200
AMOUNT NOW DUE	$17 920

The other four data projectors were finally delivered to Colbe on 21 October 2015 and Invoice no. 756 was issued on this date.

a Prepare the cash receipts journal entry required to record the deposit received from Colbe University.

b Prepare the general journal adjusting entry required on 30 September in relation to prepaid sales revenue.

c Record the credit sale made on 30 September 2015 in the sales journal.

d Record the credit sale evidenced by Invoice no. 756 on 21 October 2015.

[Exercise 19.8]

On 1 April 2015 Brooklyn Bicycles invested $8 000 in 8% state government bonds for three years. The interest is to be received by the business on 31 March each year. Balance day is 31 December each year. The owner of the business has asked for your assistance in determining an accurate figure for interest revenue earned for 2015.

a Prepare the adjusting entry required in the general journal on 31 December 2015 and the closing entry that would follow.

b Post the general journal entries from part **a** to the interest revenue account and the accrued interest revenue account.

ISBN 978 1 4202 3058 1

c State the two-fold effect of the adjusting entry in part **a** on the balance sheet of the business.

d Prepare the cash receipts journal entry on 31 March 2016 when the business receives the annual interest from the bank.

[Exercise 19.9]

Bobby Lupo invested excess cash from his business in a term deposit paying 6.5% per annum. He invested $10 000 on 1 July 2015 for two years and his reporting period concludes on 31 December each year. Interest is paid on 30 June each year.

a How much interest has been earned in the year ending 31 December 2015?

b How much interest has been received in the year ended 31 December 2015?

c Explain how these events should be treated in the income statement and balance sheet at the end of 2015.

[Exercise 19.10]

The proprietor of Emjays Fashions, Maree Johnson, has decided to take out a term deposit for four years, commencing on 1 November 2014. The bank has agreed to pay her 6.25% for a minimum investment of $30 000. It is the bank's policy to pay interest on all term deposit accounts on 31 March, 30 June, 30 September and 31 December each year. Johnson has agreed to these terms and invested $30 000. Her reporting period concludes on 30 June each year.

a Calculate how much interest would be received in the yearly reporting period that ends on 30 June 2015.

b Does your answer to **a** above represent the interest earned for the period? Explain your answer fully.

c Using the above information, state the item, its classification and its dollar value, which would be reported in the following accounting reports:
- i cash flow statement for year ended 30 June 2015
- ii income statement for year ended 30 June 2015
- iii balance sheet as at 30 June 2015.

[Exercise 19.11]

During the year ended 31 December 2015 the owner of Brunswick Arts & Crafts, Angela Bottari, has recorded receipts of commission revenue of $21 000. However, a check by Angela of the sales figures for December revealed additional commission of $4 000 that had been earned but not yet received.

a Prepare the adjusting entry required on 31 December 2015 and the closing entry on that date.

b Prepare the two ledger accounts affected by your adjusting entry from part **a**.

c Is the balance sheet affected by your adjusting entry in part **a**? If so, state the two-fold effect of the adjusting entry on the balance sheet.

d The commission owing was received on 17 January 2016, along with $2 000 commission for the new period and GST of $600. State the double entry required when the commission owing is received.

e Explain the impact on the accounting reports prepared for the year ended 31 December 2016 if the commission received on 17 January was credited to the commission revenue account.

ISBN 978 1 4202 3058 1

[Exercise 19.12] Joe Gatt, proprietor of Gatt's Gifts, invested $16 000 in a four-year term deposit at 7.5% per annum. The investment was made on 1 November 2014 and the business closes its books on 30 June each year. Interest on the investment is paid twice a year, on 30 April and 31 October.

a Prepare the relevant general ledger accounts to show all transactions relating to the investment from 1 November 2014 to 31 October 2015. Your entries should include all cash transactions, as well as adjusting and closing entries.

b Prepare the adjusting and closing entries that would be made in the general journal on 30 June 2015.

c State, and explain, the effect on the firm's reports if the balance day adjustment was not recorded on 30 June 2015.

d Show how the receipt of interest on 31 October 2015 would be recorded in the cash receipts journal of Gatt's Gifts.

CASE STUDY 1

JOHN MCCONVILLE is the proprietor of Carlton Trophies, a small business that makes trophies and medallions for individuals, schools and businesses. Because of the nature of the work, this firm requires cash up-front from all customers. Pre-paid revenue is recorded using the liability approach. The following trial balance has been provided for your perusal, along with some additional information about the business and its records for the current year.

Carlton Trophies: trial balance as at 31 August 2015

	$		$
Cost of sales	37 000	Prepaid sales revenue	92 000
Cash at bank	12 000	Capital	121 800
Display equipment	11 000	Creditors control	12 250
Cleaning of premises	4 200	Interest revenue	350
Stationery expense	1 740	Loan—TY Finance	13 750
Prepaid insurance	1 800	Mortgage loan	128 000
Term deposit	5 000	Accum. dep'n—display equip.	7 000
Drawings	20 000	GST clearing	3 200
Stock control	40 150		
Advertising	500		
Wages	22 160		
Interest expense	12 800		
Premises	210 000		
	378 350		378 350

ISBN 978 1 4202 3058 1

ADDITIONAL INFORMATION:

- Of the prepaid sales revenue, $8400 relates to orders that will be completed during September and October 2015.
- An account for advertising done during August 2015 has not yet been paid. The invoice from Northern Newspapers is for $100.
- The insurance policy of $1800 was taken out on 1 December 2014 for 12 months cover.
- Interest on the term deposit is payable at 7% per annum. The investment was made on 30 April 2014 for a three-year period.
- A check of the firm's cheque butts has revealed an irregularity. McConville withdrew $2000 cash in June and this was accidentally debited to wages.
- Commission revenue earned by the business during the period was $500. None of this commission has yet been received.
- A bank statement received on 31 August 2015 showed interest was charged on the mortgage loan for the last month of the period. The amount was $1200 and this payment was not taken into account before the above trial balance was prepared.
- A stocktake done on 31 August revealed stock on hand costing $40500.
- Depreciation of display equipment to be 10% per annum, reducing balance method.

a Prepare all the required adjusting entries in the general journal on 31 August 2015.

b Prepare an income statement for the year ended 31 August 2015, showing both the gross profit and net profit for the period.

c Taking into account all adjustments required, prepare extracts from the balance sheet to show the current assets and current liabilities as at 31 August 2015.

d Commission received on 5 September 2015 totalled $700, plus GST of $70. Prepare the accrued commission revenue account, including the balance day adjustment and the subsequent receipt of cash in the new reporting period.

e Prepare the relevant entry in the firm's receipts journal when the commission was received on 5 September 2015.

f McConville has stated that he will settle the account for the outstanding advertising expense on 7 September 2015. Prepare the accrued advertising expense account, including the balance day adjustment and the subsequent payment of cash.

g Prepare the following general ledger accounts, including all relevant entries: prepaid sales revenue, prepaid insurance expense, capital and drawings.

ISBN 978 1 4202 3058 1

CASE STUDY 2

TRISHA JONES owns and manages a small business trading under the name Costumes & Wigs. She sells a range of products, some of which must be paid for in advance as they are designed on an individual basis. At the end of the current reporting period, Jones provided the following trial balance:

Costumes & Wigs: trial balance as at 30 June 2015

	$		$
Advertising	1 230	Accum. dep'n—Shop fittings	4 800
Bad debts	600	Cash at bank	1 120
Cartage in	450	Capital	70 000
Cartage out	500	Commission revenue	1 200
Cost of sales	32 340	Creditors	3 200
Debtors control	2 430	Loan	20 000
Drawings	17 000	Prepaid sales revenue	38 400
Interest	2 000	Sales revenue	44 000
Prepaid rent	52 000	GST clearing	1 830
Shop fittings	16 000		
Stock control	45 400		
Telephone expense	1 200		
Wages—casual	13 400		
	184 550		184 550

ADDITIONAL INFORMATION:

- Some costumes have been damaged while on display and will have to be heavily discounted in order to be sold. They originally cost $1 200, but are now expected to only realise $800 when sold (Memo 32).
- A debtor, J. Blow, who owes $130 to the business cannot be traced. As the debt was created 10 months ago, Jones has decided to write off the account as irrecoverable (Memo 33).
- Of the prepaid sales revenue received during the current period, $36 500 of it has now been earned, with the customers receiving their goods before 30 June 2015.
- The business has earned commission totalling $1 400 during the year. Some commission has not yet been received.
- Rent of the business premises is $4 000 per month, payable a month in advance.
- Shop fittings are to be depreciated at 15% per annum, using the straight-line method.
- A debtor returned some goods on 30 June 2015 and Jones has not had time to record this return in her books. The goods originally cost Jones $250 and were sold to the debtor on 26 June for $420, plus GST of $42 (Credit note no. 64 issued to J. Manassa).
- Telephone expense owing as at 30 June 2015 was $150.
- The business has another four years to pay off the loan. It is repayable in monthly instalments over this time.

ISBN 978 1 4202 3058 1

a Complete the balance day adjustments required in the general journal on 30 June 2015.

b Prepare an income statement for the year ended 30 June 2015. Your report should include both gross and net profit figures.

c Prepare a fully classified balance sheet as at 30 June 2015.

d Explain your treatment of the loan in your balance sheet.

e Jones treats the receipt of sales revenue in advance as a liability. Is this correct accounting practice? Justify your answer fully.

f How would you rate the performance of this business over the year? Write a brief comment to summarise your thoughts.

ISBN 978 1 4202 3058 1

Chapter 20

Managing and controlling debtors, creditors and stock

OBJECTIVES

At the completion of this chapter, you should be able to:

- explain the importance of managing debtors, creditors and stock
- describe some basic control mechanisms for controlling debtors, creditors and stock
- prepare an age analysis of debtors
- calculate a debtors turnover rate (in times and in days)
- calculate a stock turnover rate (in times and in days)
- determine the length of the cash cycle for a trading business
- calculate a creditors turnover rate (in times and in days)
- suggest reasons for changes in the turnover rates for debtors, creditors and stock
- state ways of improving a firm's performance in relation to controlling its debtors, creditors and stock.

ISBN 978 1 4202 3058 1

20.1 Controlling inventory

One of the most important aspects of managing a trading business is that of controlling inventory. The buying and selling of stock is the lifeblood of a trading firm. The success or failure of a trading business is often decided by the decision-making of management in relation to its inventory. Questions faced by management on a day-to-day basis include:

- What goods should we buy?
- How many of each product should we purchase?
- What size range should be bought (for clothing stores)?
- What colour range should be purchased?
- Which brand names should be stocked?

These decisions do not go away after a period of time. Management is constantly faced with such decisions as the everyday buying and selling of goods goes on. In many small businesses, inventory is the most valuable asset reported in the balance sheet (particularly so when the business rents its premises instead of owning land and buildings). It is therefore a key investment for a business owner and one that demands a lot of attention throughout a reporting period.

Under the perpetual inventory system, inventory is represented in the general ledger by the Stock Control account. As has been demonstrated on previous occasions in this text, the Stock Control account has a key role in helping management control its stock. The control account is represented by a system of numerous stock cards, and a reconciliation between these two types of records should be carried out on a regular basis. This is an essential part of the accounting system under perpetual inventory, but it should not be viewed as the only facet of stock control. In order to control a firm's inventory, there are many more procedures that management can adopt. Some of these are outlined here:

1 Setting minimum and maximum levels of inventory

Minimum and maximum numbers should be set for every line of stock. That is, every type of stock must be considered separately and an ideal quantity decided for each line. A business that carries too little stock is likely to miss out on potential sales. A firm that carries too much stock may suffer from 'dead stock'; that is, goods that can no longer be sold. This may occur because of changes in fashion, changes in season, or through technological change. Deciding what is too little and too much stock is often difficult, and personal judgment is required to make correct decisions. In a perfect situation, the minimum quantity should be just enough to satisfy sales until a new order is delivered. The principle of **just in time ordering** is one that many small business owners try to follow. With just in time ordering, replacement orders of stock arrive just as the last few numbers of the current stock are used up. Of course, this does not always happen in practice, as customers are not always predictable in their behaviour. However, just in time ordering is something that should be considered by management.

2 Physically rotating stock on hand

When a new delivery of stock arrives at a store, it should not simply be stacked on top of existing stock. The older units on hand should be placed on prominent display, with the new units placed behind or under them (depending on the nature of the stock). This is particularly important for perishable items, such as food. Many items now carry use-by dates, and such items

ISBN 978 1 4202 3058 1

are difficult to sell if these dates have almost expired. This does not relate to food only; other products such as batteries and medicines also have use-by dates stamped on them by suppliers. Other types of stock should also be rotated, because the longer an item sits in a shop the more likely it is to become dirty, dusty or damaged. Stock affected like this is generally referred to as 'shop-soiled', and it may become so simply by sitting on a shelf too long. It is difficult to sell shop-soiled inventory, so management should always ensure that it looks after its inventory and presents it in the best possible way. Rotating stock is one way of doing this.

Note: the rotation of stock is based on the physical movement of goods and is different from the assumption of first in, first out (FIFO) stock valuation. Even when stock is regularly rotated by management, there is still a possibility that customers will select an item from the bottom of a stack or the back of a shelf. For example, many customers will take milk from the back of the fridge, even if it means moving a few cartons first! Magazine buyers will often choose a product from the back of a display to ensure that it is in perfect condition. You need to remember that FIFO is an assumed stock flow. Although management would hope that stock moves on a first in, first out basis, this may not be what actually happens on the shop floor.

3 Identifying and removing slow-moving lines

Stock cards must be regularly reviewed and slow-moving lines identified. Once they are identified, these slow-moving products must be dealt with. Perhaps a clearance sale may be required. Management may decide that this line should not be sold any more, or may look for a replacement product that will sell at a faster rate. The worst thing management can do is nothing! Slow-moving inventory has the potential to ruin a trading business. Once the goods have been paid for, they need to be sold to generate a cash inflow. Inventory is the key to success in a trading business but, if it is not selling fast enough, it may also be the cause of business failure.

Note: the definition of slow-moving inventory relies heavily on the nature of the goods being sold. Some inventory may be slow moving in comparison with other goods available for sale. However, these slower-selling items may also be highly profitable. For example, a department store may sell both clothing and furniture. Stock in the clothing area may sell at a much faster rate in comparison with stock in the furniture department. This may be tolerated by management because furniture sales, although much slower to eventuate, are much more profitable. Therefore, when identifying slow-moving lines, the nature of the inventory should always be considered.

4 Monitoring seasonal products

If a trading firm has products that are subject to seasonal demand, management must give such items special attention. Towards the end of the 'season', such stock must be run down to a very low level or cleared out altogether. If the firm is left with stock items that cannot be sold for another 12 months (if at all), these items will become dead stock. Seasonal stock includes a wide range of items such as woollen clothing, beach wear, sunscreen lotions, swimming pool accessories, heaters and even sports equipment. For example, in Victoria there is a huge industry in sporting apparel, particularly in football clothing. However, there is little point in stocking up on football jumpers in October! Most sporting goods stores have clearance sales in August or September so that all football stock is sold before the end of the season. This ensures that there is little if any dead stock sitting in the shop through the period from October to February each year. Once the summer season has passed, new stocks of a fresh range of merchandise may be purchased.

ISBN 978 1 4202 3058 1

5 Monitoring products subject to technological obsolescence

Some trading firms are affected by rapid technological change. Businesses selling televisions, computers and mobile phones are classic examples. It may be unwise to stock up on a particular model simply because a supplier is offering a very good price. If customers are not going to buy the product because there is a new and improved model on the market, the business may be left with dead stock. Young consumers in particular have a desire to have the latest products, and even cheaper alternatives may not persuade them to buy older models. Therefore, management in such industries must take care not to over-commit to inventory purchases. It must keep abreast of the latest trends in product development.

6 Introducing complementary products

One way of trying to improve the management of stock is to have a range of complementary products available for customers. The firm will need to consider what products it could sell to complement the products already available. For example, a menswear store will usually sell belts and ties as well as shirts and trousers. A mobile phone store may also sell battery packs, interchangeable phone faces, hands-free kits and the like. An increased range of inventory may attract additional customers and also improve the chances of selling the established lines of stock.

7 Changing with the times

Regardless of the nature of the inventory being sold by a trading firm, management must always be prepared to change. A business that does the same thing year after year will often fail. Markets change, competitors change and customers change. Managing inventory is a dynamic process and owners must be ready for anything. Constant monitoring of all stock lines is an essential part of managing a trading business. A top seller one year may become a slow mover in another year. Management must always be ready and willing to react to change. The amount of change and the speed of change will often depend on the type of business under examination. However, those business owners who refuse to change will often find themselves losing their place in the market and they may then pay the ultimate price when they are forced out of business.

8 Monitoring selling prices

One factor that should never be underestimated in the management of inventory is the setting of selling prices. Some markets are more reactive to changes in selling prices than others, but all firms need to constantly review selling prices to ensure that profit margins are sufficient to cover expenses. Stock can be sold very quickly if selling prices are slashed. However, there is little point in selling thousands of items if a profit is not going to be earned! Cost prices must be monitored closely, as an increase in cost prices is a threat to a firm's profit margin. An increase in cost prices will usually require an increase in selling prices, although a firm facing intense competition may be limited in how much it can raise prices. There are no guidelines for owners in this area and there are many factors to take into account. Constant monitoring of selling prices is necessary and it is important at this stage to realise that selling prices will have an impact on the turnover of inventory. The area of profit margins is developed further in chapter 22.

ISBN 978 1 4202 3058 1

9 Ensuring that adequate stock security is in place

An important part of managing the stock of a business is security. After cash, inventory is the asset most likely to be targeted for theft. Stock may be stolen by customers and also by staff if adequate security is not in place. Some devices and/or tactics that may be considered by management include:

- security guards
- undercover security personnel
- video surveillance
- security tags on products
- two-way mirrors
- dye bombs
- electronic security gates at all exits
- random checks on staff.

Because stock losses do not occur only from shoplifting, management should also ensure that attention is given to staff procedures in relation to inventory. There are numerous recorded cases of fraud and/or theft in business situations that involve staff. Control procedures should tackle potential problem areas by ensuring that:

- **all deliveries of inventory are checked against invoices received**
- **documents are filed in an organised fashion to avoid 'double invoicing' by suppliers.** If two invoices are received for the same delivery and this is not detected, management may think at the end of the period that the firm has suffered a stock loss. Such a problem, however, is due to duplicate invoicing not being detected
- **in all cash sales, cash is securely placed in registers.** Some staff may occasionally not record a cash sale and instead attempt to pocket the cash. Once again, this may show up as a stock loss because the goods have left the business premises. This problem is not that of stock being stolen; it is actually a case of a sale not being recorded! This is one reason for having a bell on all cash registers. The bell should sound whenever the register is opened, thus signifying to a supervisor (or the owner) that cash is being received. If a customer leaves the shop after making a purchase and the bell has not been heard, the register should be checked immediately to ensure that the sale has been recorded and the cash securely placed in the cash register.

The manager of a small business should consider what security is required for their particular store and respond on that basis. If stock losses are increasing, different measures should be adopted, such as implementing additional security devices. Stock losses may occur in a particular section of the store, indicating a problem with staff in that area. Security should be under constant review to ensure that the goods purchased for resale are actually available for sale and not being stolen before they have a chance of being purchased by customers. Once goods are on the shelves, shoplifting is an ever-present threat. All owners of trading firms need to be vigilant in order to minimise the cost of this expense.

In summary, managing inventory is an ongoing responsibility. Stock must be constantly reviewed in terms of its security, its turnover and its general performance. If inventory is not managed effectively, the overall performance of a trading firm will suffer and so too will the returns to the owner in terms of profit. As the success of a trading firm is based on the buying and selling of goods, the management and control of inventory is crucial to this objective.

ISBN 978 1 4202 3058 1

20.2 Evaluating stock turnover

As mentioned earlier, it is possible for a trading business to have too much or too little inventory on hand. It is important that stock is turned into sales and therefore into cash within a reasonable time. This allows a trading business to function on a day-to-day basis. Stock can be paid for, expenses can be met and, hopefully, a profit can be earned. But how long should a business take to turn its stock into sales? What is an acceptable period of time for a trading firm to sell all of its stock? There are no simple answers to such questions. All businesses are different, and different industries will have different factors to take into account. However, a good starting point is the **stock turnover ratio**, which can be used to evaluate the success or otherwise of management's investment in its inventory.

The stock turnover ratio is calculated as follows:

$$\text{Stock turnover ratio} = \frac{\text{Cost of goods sold}}{\text{Average level of stock}}$$

This ratio compares the sales made in a period (at cost price) with the average level of inventory kept in the business. Consider the following example, based on end-of-year data for three consecutive reporting periods for City Menswear:

	2013	*2014*	*2015*
	$	*$*	*$*
Cost of goods sold		140 000	154 000
Balance of stock control	55 000	57 000	59 000

The first step is to determine the average level of stock held by the business. At the end of 2013 the business had $55 000, and this had grown to $57 000 by the end of 2014. Therefore, over the year the average stock could be determined as an average of these two figures (that is, $55 000 + $57 000 = $112 000, which divided by 2 gives $56 000). Similarly, the average inventory level for 2015 can be determined as the average of stock at beginning and stock at end for that period ($57 000 + $59 000 = $116 000, which divided by 2 gives $58 000). Using an average figure for inventory on hand helps prevent the rate from being distorted by any significant increase or decrease in stock levels during a particular reporting period. Having determined average stock figures for both periods, the calculation of stock turnover can then be determined, as shown below.

For the year 2014:

$$\text{Stock turnover ratio} = \frac{\$140\,000}{\$56\,000}$$

$$= 2.5{:}1 \text{ or } 2.5 \text{ times per annum}$$

For the year 2015:

$$\text{Stock turnover ratio} = \frac{\$154\,000}{\$58\,000}$$

$$= 2.655{:}1 \text{ or } 2.66 \text{ times per annum}$$

Note: if average stock figures are unavailable, the ratio may be calculated using data for stock at the end of the period.

ISBN 978 1 4202 3058 1

The ratios calculated for City Menswear indicate that in 2014 this business turned its stock into sales 2.5 times during the year. In the subsequent reporting period (2015) this was increased to 2.66 times for the year, which is a favourable trend. This means that the inventory has been moving out of the business at a faster rate in 2015 compared with 2014. It also means that the likelihood of having idle stock in 2015 is lower than it was in 2014. It appears that management has been more efficient in controlling its inventory. Although this could be the result of a variety of decisions made by management, it is generally viewed as a positive result.

To further emphasise changes in inventory turnover, it is possible to convert the turnover results into the average number of days it took to turn inventory over once. That is, how long did the firm take to turn the average level of stock into sales? Using the turnover rates for City Menswear, the conversion to days is done as follows:

For 2014:

Stock turnover rate of 2.5 times per annum

To convert to days: $\frac{365}{2.5} = 146$ days

For 2015:

Stock turnover rate of 2.66 times per annum.

To convert to days: $\frac{365}{2.66} = 137$ days*

*Rounded off to the nearest whole number

A turnover rate expressed in days is often easier to understand for the various users of accounting reports, including small business owners. In the case of City Menswear, management has reduced the time it took to turn its stock into sales by 9 days (146 – 137 = 9). This is highly beneficial for a trading business, as the time it takes to sell its stock determines the time the business must wait to ultimately receive cash from its sales.

It is possible to rework the stock turnover ratio so that the result is expressed in days straightaway. Rather than determine the rate in terms of times per annum, the turnover rate can be calculated using the formula:

$$\text{Stock turnover in days} = \frac{\text{Average stock} \times 365}{\text{Cost of goods sold}}$$

To demonstrate this, the data from City Menswear will be used again so that the result can be easily verified. Therefore, the calculations for 2014 and 2015 become:

		2014		2015
Stock turnover in days	=	$\frac{\$56\,000 \times 365}{\$140\,000}$	=	$\frac{\$58\,000 \times 365}{\$154\,000}$
	=	146 days	=	137 days

When commenting on a change in stock turnover rates, always be sure to analyse the data accurately. An increase in the number of times per annum is a positive change, as it shows that stock is being turned over at a faster rate. However, this means that, when expressed in days, it will be a lower number of days, which once again indicates that stock is being turned over at a faster rate.

How do you know if a particular turnover rate is favourable? There are three ways in which a stock turnover rate is commonly evaluated. These are outlined on the next page.

ISBN 978 1 4202 3058 1

- **Comparison with turnover rates in previous reporting periods.** This is an ideal starting point, as it gives management a historical perspective and allows comparisons with the current period to be made easily.
- **Comparison with expectations of management.** With City Menswear, an improvement was noted because the turnover rate decreased to 137 days. However, if management had set a target of 125 days in 2015 the turnover rate—although better than it was in 2014—would not have met expectations. Therefore both the change in the turnover rate and management's goals should be considered when evaluating a stock turnover rate.
- **Consideration of the type of inventory sold.** This is possibly the most important factor to consider when deciding if a particular rate is good or not. A hot bread shop will have a much higher rate of stock turnover than a used car yard. A fruit shop would expect a much higher rate of stock turnover than a hardware store. There is no such thing as an ideal stock turnover rate. It is highly dependent on the type of inventory being sold and whether or not there are other factors to consider, such as seasonal trends. Having determined an acceptable rate of stock turnover, management should then endeavour to maintain or improve it to ensure that the investment in inventory is producing revenue at a fast enough rate.

When examining stock turnover rates, bear in mind that the rate determined is an average for a period. Many businesses sell a range of inventory, not just one type of product. Some of these items may turn over quickly, while other products may experience a much slower turnover rate. A typical supermarket sells milk, fresh bread, canned vegetables, mineral turpentine and mouse traps. It would be reasonable to expect that the fresh milk and bread sections would need to be restocked daily. These two areas would therefore each have a turnover of 365 times per annum. (That is, the stock of each would be turned over once each day.) Contrast this with the stock of canned vegetables, which may take several days to sell out. Mineral turpentine may take two weeks to clear the shelves, and mouse traps may take a month. When a stock turnover rate is determined for a supermarket, it may be as low as 8 to 10 days, which is the average turnover rate based on its average investment in inventory. This includes the great range of products that such a business sells, and therefore care should be taken when interpreting results.

As every business is unique, comparisons with turnover rates achieved in a firm's previous reporting periods are more relevant than comparisons with rates in other firms. Differences between businesses may render inter-firm comparisons of turnover rates meaningless. Factors that can influence the turnover rates of different businesses within an industry include:

- the range of products being sold
- the length of time a business has been operating
- the size of a business
- competition in the local area.

If management has detected a problem with its stock turnover, action should be taken to try to improve the situation and therefore shorten the time taken to turn stock into sales. Some possible tactics are:

- reducing the selling price of slow-moving items
- relocating stock within the store to highlight particular goods
- running special promotions of targeted stock lines
- combining items to promote particular products (such as ice cream and drink combinations).

The perpetual inventory system involves continuous recording of all stock movements. To succeed in managing and controlling stock, a firm must also continuously review the performance of all items being sold. Checking movements of stock through a regular review of

ISBN 978 1 4202 3058 1

GET SUCCESS
Excel in a rewarding career

Melissa Claassen CPA
CFO adidas Group
Hong Kong & Taiwan

adidas helps athletes go further, higher and faster. That's what the CPA Program did for Melissa. It equipped her with the technical knowledge to get her first job as an accounting officer, and the strategic business skills that helped her career progress across Australia, Germany, China and Hong Kong. Get your advantage with the CPA Program and get on track for a winning career.

Get a head start now

The best way to kick-start your career in accounting is to join CPA Australia's global student network that connects you with a range of benefits for free, including:

- Internships
- Networking events
- Study support
- Work experience
- Jobs
- Resources

Join now at
cpaaustralia.com.au/cpastudent

think+create

CPA AUSTRALIA

stock cards should provide management with sufficient information for making decisions that allow it to not only control the stock owned by the business, but also to improve performance where necessary.

20.3 Controlling debtors

Once the issue of controlling and turning over its inventory at an acceptable rate has been addressed, management needs to turn its attention to how it manages its sales. If goods are always sold for cash, management can focus solely on the turnover of stock. However, a firm that makes credit sales must evaluate how it manages its debtors. Selling on credit is a legitimate tactic used to increase stock turnover, as new clients may be attracted to the business if a credit facility is available. However, there is little benefit in providing credit if the firm's debtors cannot be controlled and kept within certain limits. Ultimately, debtors are not valuable assets if the business cannot turn them into cash at some point.

Before granting credit to a customer, a credit check should be performed to ascertain whether or not the potential debtor is an acceptable risk. All credit sales have an element of risk about them, with the ultimate risk being non-payment. In larger businesses, the credit check may be quite substantial and may include items such as:

- banking history
- loans and/or credit card history
- references from other businesses
- references from financial institutions
- cash forecasts and/or budgets
- income statements
- balance sheets.

Smaller businesses often use agencies, found in all capital cities, which conduct a credit check on behalf of a small business owner. They charge a fee for their services, but such a fee may be small compared with the potential cost of selling on credit to a customer with a poor credit history. It is unusual in the small business sector to ask for a full set of accounting reports from a potential customer. However, it is quite common to ask for references from other businesses that have provided credit in the past. If a potential client cannot furnish such references, a small business owner may insist on cash sales until a relationship is established.

Once a business has an established list of credit customers (debtors), it is vital that they are continuously monitored. If credit terms of 30 days have been granted to debtors, it is reasonable to expect that cash will be received about a month after sale. If this does not occur, action should be taken to rectify the situation. As computers are used so much in small businesses now, it is quite easy to keep track of debtors. Programs such as Quickbooks® have reminders that pop up on the screen when accounts become overdue. In a manual system, managers have to be more vigilant to ensure that overdue accounts are not overlooked. If a business sells on credit, management may adopt a list of tactics in an attempt to get payment. These include:

- offering discounts for prompt payment
- charging interest on overdue accounts (this needs to be part of the original contract)
- sending reminders to debtors via fax or email
- reminding debtors via the telephone, so as to make personal contact
- sending monthly statements out regularly, including brightly coloured stickers if accounts are overdue

ISBN 978 1 4202 3058 1

- threatening not to provide credit in the future
- making personal visits to the customer's place of business (if a business client)
- threatening clients with legal action
- employing a debt collector
- taking legal action to recover the debt.

The above list includes a wide range of tactics, from the relatively mild (sending an email) to the extreme (taking legal action). Keep in mind that some debtors may take offence at being continually chased for money. Although a business owner may have a legal right to pursue slow payers or non-payers, it should be done with tact wherever possible. Otherwise the business owner may lose a good customer forever. Some debtors may be notoriously slow payers, but they may also just happen to be the firm's biggest clients. It would be foolish to threaten legal action against such a debtor, as the value of future sales could easily outweigh the value of one delayed payment. Small business owners need to know their customers well; in particular, how to coax them into paying overdue accounts without undue embarrassment. For example, some slow payers will always wait for a reminder via a monthly statement with a sticker reading 'Account overdue, please pay by return mail'. Until this is received, it may be common practice for this particular debtor to withhold payment. Other debtors will always pay as soon as they receive an invoice. Knowing the debtors of the business is always a challenge, but it is invaluable when chasing up overdue accounts.

To gain a greater insight into the debtors of a business, it is possible to analyse them in terms of the time that has passed since the credit sales were originally made. An age analysis of debtors classifies debtors' accounts according to the age of their debt. That is, it shows how much time has elapsed since the credit sales were actually made. This is vital information because, in general terms, the older a debt becomes the more likely it is to turn into a bad debt. An example of an age analysis of debtors has been prepared in figure 20.1.

Figure 20.1 Age analysis of debtors

Age analysis of debtors as at 30 June 2015

Total Debtors	0–30 days	31–60 days	61–90 days	91 days and over
$14 000	$10 500	$2 000	$1 000	$500
100%	75.0%	14.3%	7.1%	3.6%

The age analysis in figure 20.1 shows that the total debtors of the business have accounts that add up to $14 000. The age analysis then breaks this $14 000 into categories, based on how long the debt has been unpaid. Such an analysis enables management to evaluate its collection procedures. For example, if debtors were allowed 30 days' credit, the majority of the debtors' balances should be in the first section of the age analysis table. If this were not the case, it would indicate that the credit terms offered to debtors are being abused. This may lead to cash flow problems for the business, as cash may not be coming into the firm quickly enough. Although 75% of the debtors in this example are in the 0–30 day category, a problem may still exist for this business. A total of 10.7% of debtors' accounts have gone beyond two months and 3.6% of total debts outstanding are now over the 90-day mark. Such debtors would have been issued with several reminders over the three-month period, yet their accounts are still not settled. The longer these accounts remain unpaid, the more likely they are to turn into bad debts.

ISBN 978 1 4202 3058 1

An **age analysis of debtors** should be prepared on a regular basis (preferably monthly) and compared with previous analyses so that management can see any trends emerging. If the comparison shows that a higher percentage of debtors have moved into the 0–30 day category, this would indicate that management has gained better control over its debtors. On the other hand, if management has adopted a lax attitude in its follow-up procedures, more debtors may be slipping into the lower groups of the age analysis. This would indicate a real problem in terms of credit control and there may be dire consequences if the situation is not rectified in the near future.

20.4 Evaluating debtors turnover

In addition to preparing an age analysis of a firm's debtors, management may also choose to calculate a **debtors turnover ratio**. This ratio can be used to help assess the level of control a business has over its debtors. The debtors turnover ratio compares the credit sales of a period to the average level of debtors, as shown:

$$\text{Debtors turnover ratio} = \frac{\text{Credit sales}}{\text{Average debtors}}$$

Note that this ratio only applies to those sales made on credit, as cash sales do not affect debtors. Consider the following example, based on end-of-year data for three consecutive reporting periods for City Menswear:

	2013	*2014*	*2015*
	$	*$*	*$*
Credit sales		80 000	100 000
Balance of debtors control	8 000	10 000	7 000

The first step is to determine the average amount owed by debtors to the business. At the end of 2013 the debtors of City Menswear owed $8000, and this had increased to $10 000 by the end of 2014. Therefore, over the year average debtors would be $9000 ($8000 + $10 000 = $18 000, divided by 2). Similarly, the average debtors for 2015 is $8500 ($10 000 + $7000 = $17 000, divided by 2). Using an average figure for total debtors helps prevent the rate being distorted by any significant increase or decrease in debtor levels during a particular reporting period.

Having determined average debtors for both periods, the calculation of the debtors turnover rate can then be determined, as shown below.

For the year 2014:

$$\text{Debtors turnover} = \frac{\$80\,000}{\$9000}$$

$$= 8.89{:}1 \text{ or } 8.89 \text{ times per annum}$$

For the year 2015:

$$\text{Debtors turnover} = \frac{\$100\,000}{\$8500}$$

$$= 11.76{:}1 \text{ or } 11.76 \text{ times per annum}$$

ISBN 978 1 4202 3058 1

Note: if average debtors figures are unavailable, this ratio may be calculated using data for end-of-period debtors.

The result for City Menswear would be viewed as favourable because the credit sales figures have increased over time, while the amount owed by debtors decreased during 2015. It is a positive outcome if a business can sell more on credit while keeping control over its debtors. This indicates that, even with a greater amount of credit sales, the debtors' accounts are being collected and are therefore under control. Perhaps the management of this business has tightened up on its follow-up procedures once goods have been sold on credit. Or it may have decided to offer incentives for early payments (such as discounts), to which its customers have responded in a favourable manner. Whatever has been done, it appears to have improved the performance of management in terms of controlling its debtors.

But has management done enough? Are the debtors paying on time? The debtors turnover ratio, expressed in times per annum, can show whether a business has been faster or slower in collecting debts from debtors, but it does not show how long debtors are taking to settle their debts. This ratio can also be expressed in days, as was the case with the stock turnover ratio. Using the debtors turnover rates for City Menswear, the conversion to days is done as follows:

For the year 2014:

Debtors turnover rate of 8.89 times per annum

To convert to days: $\frac{365}{8.89} = 41$ days*

For the year 2015:

Debtors turnover rate of 11.76 times per annum

To convert to days: $\frac{365}{11.76} = 31$ days*

*Rounded off to the nearest whole number

The debtors turnover rate, when expressed in days, has more meaning because it can then be compared with the credit terms granted to debtors at the point of sale. In the City Menswear example, the firm's debtors took an average of 41 days to settle their accounts in 2014 but only 31 days in 2015. The reduction in the time taken to collect debtors' accounts is favourable, as the firm is receiving cash at a faster rate. This is particularly important for a firm's liquidity, since the less time taken to collect debts, the earlier the firm gains the cash it needs to meet its own obligations. If a business trades on 30 days' credit, an average collection period of 31 days may be seen as acceptable. As 31 days is an average, this means that some debtors took less than 30 days to settle their accounts, while others may have taken much longer before paying their debts. In 2014 the firm's debtors were taking an average of 41 days. This indicates to management that debtors were taking longer than expected, and perhaps it responded in 2015 by improving follow-up procedures. The figures appear to support the notion that management did take corrective action during 2015 and reduced the time taken to collect debts.

Bear in mind that these comments are made on the assumption that this business trades on 30 days' credit. If it sold on 60 days' credit, for example, the turnover rates would be seen in a different light and the results would be viewed as most satisfactory. Thus it is most important that debtors turnover rates are compared with the actual credit terms offered by the business. The control of debtors is dependent on the terms on offer and management's ability to enforce those credit terms.

ISBN 978 1 4202 3058 1

Once the credit terms on offer and the actual debtors turnover in days are compared, the ratio should then be compared with ratios from previous reporting periods. This would allow any noticeable trends to be identified. Management should also set targets for such ratios. Turnover results can then also be measured against this predetermined rate set by management. If debtors turnover has been a problem in the past, management may set a standard of performance that has to be met within a set period. This then provides a yardstick for measuring success or failure at the end of the reporting period. The results of the debtors turnover rate is therefore more dependent on internal factors, and comparisons with other businesses are of little value.

As was the case with the stock turnover rate, it is also possible to rework the debtors turnover rate so that the result is expressed in days immediately. Therefore, the debtors turnover formula may be expressed as follows:

$$\text{Debtors turnover in days} = \frac{\text{Average debtors} \times 365}{\text{Credit sales}}$$

To demonstrate this calculation, the data from City Menswear will again be used. Therefore, the calculations for 2014 and 2015 become:

		2014		2015
Debtors turnover in days	=	$\frac{\$9000 \times 365}{\$80000}$	=	$\frac{\$8500 \times 365}{\$100000}$
	=	41 days	=	31 days

As was the case with stock turnover rates, always make sure that you are aware of exactly what is being analysed before making comments on any trend. The change in the number of times per annum will be the opposite trend when compared to number of days. That is, if the number of times debtors are turned over has increased, the number of days they take to pay back their debts will decrease. The preferred method is to express the ratio in days, so that it can be compared to the credit terms offered to credit customers. Once expressed in days, it can also be used to determine the cash cycle of a business (see below).

20.5 Evaluating the cash cycle

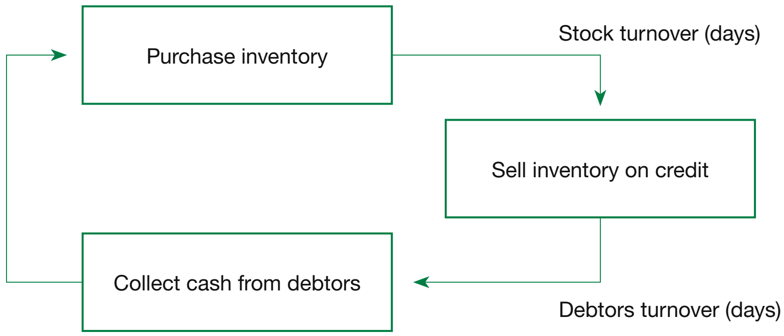
As has already been covered in detail, stock turnover and debtors turnover play pivotal roles in the success of trading firms. Indeed, these two ratios have a close relationship. A trading business is involved in a continuous process of buying goods, turning these goods into sales and then turning these sales into cash. This whole process is known as the **cash cycle** of business, which is the time taken to ultimately collect cash from the stock bought for resale by the business. The cash cycle will therefore be the sum of the stock turnover and debtors turnover. Figure 20.2 on page 424 shows the cash cycle as represented by a flow diagram.

Using the ratios calculated for City Menswear, the firm's cash cycle can be determined as follows:

	2014	*2015*
Stock turnover (in days)	146	137
+ Debtors turnover (in days)	41	31
= Cash cycle	187	168

ISBN 978 1 4202 3058 1

Figure 20.2 The cash cycle of a trading business selling on credit



Combining the two turnover rates gives management a complete summary of what has happened in the business in terms of these two crucial current assets. For City Menswear, improvements have been achieved in both turnover rates. These improvements mean that, on average, the cash cycle of the business has decreased by 19 days. The business is therefore receiving cash from its investment in inventory 19 days faster than the previous year. This is highly advantageous, as the cash is available at an earlier date and can therefore be used by management as it sees fit. For example, discounts may be gained because creditors' accounts can be settled earlier. Interest on the firm's overdraft may be reduced because the overdraft may be decreased or even eliminated. It is always an advantage to have the cash cycle reduced.

Because the cash cycle is made up of two components, it is possible for movements in one component to be offset by opposite movements in the other component. This makes it appear as if the cash cycle has not changed, since the overall figure may be consistent from one period to the next. This is why both components of the cash cycle need to be monitored. If one turnover rate has been improved, it may be time to concentrate on the other so that the firm's overall performance can still be improved over time.

As with all analytical tools, the cash cycle examines relationships between different items, so it can be used to inform management of perceived problems. How management reacts to these problems may have a major impact on the success or failure of a business. Ratios are just another source of financial information to be used by owners and managers. Ultimately, these people need to make decisions that lead to changes in the cash cycle that will strengthen the business and leave it able to perform better in future periods.

20.6 Evaluating creditors turnover

A firm does not need to control creditors so much as to manage them in a way that helps satisfy the needs of the business. Creditors are a wonderful source of credit. Many trading businesses purchase their inventory requirements from creditors (known as trade credit) for two basic reasons. The first reason is that trade credit gives a business time in which to try to sell its stock and turn it into cash. The second is that trade credit is basically interest-free finance. It is a short-term credit arrangement that does not involve interest, unless accounts are overdue and the terms of purchase allow the creditor to charge interest on the overdue amount. In a retail store, for example, it is common practice to purchase inventory on 30 days' credit. The objective of retailers is then to have a cash cycle that is fast enough to be able to cope with demands for payment at the end of this 30-day period. This is not always possible, but the concept of working with creditors in line with the firm's cash cycle is one that needs to be stressed. The

ISBN 978 1 4202 3058 1

cash cycle flow diagram presented previously can be modified to represent this situation, as shown in figure 20.3.

Figure 20.3 The cash cycle of a trading business buying and selling on credit

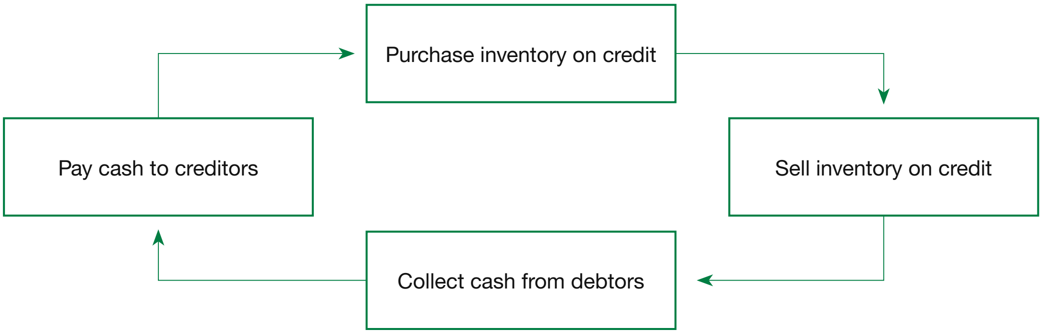


Figure 20.3 represents the ideal situation for a trading business. It shows a cycle of buying goods, selling goods, collecting cash and then ultimately paying cash to creditors at the end of the cycle. Unfortunately, things do not always happen in this order! Quite often the payment of creditors' accounts becomes a balancing act for management. A business owner will not normally set out to upset a creditor. Suppliers also expect to be paid on time, and it is a dangerous practice to always pay late. The old 'the cheque is in the mail' routine does not hold up with many suppliers. If it is used repeatedly, they may refuse to supply goods on credit to the firm in future. Therefore the human behaviour factor must be considered when dealing with creditors, just as it must when dealing with debtors.

However, when a business owner experiences problems with slow stock turnover, or has problems with slow-paying debtors, payments to creditors may be deliberately delayed. If a business is experiencing a severe cash shortage, there may be little choice but to try to put off creditors for a few weeks. At other times a business may have excess cash, allowing it to settle accounts promptly to take advantage of any available discounts. Therefore, when evaluating a **creditors turnover ratio**, keep in mind that other factors within the business may determine what happens to creditors in terms of their settlement periods.

A creditors turnover rate may be calculated in a similar fashion to that of the debtors turnover rate. Instead of credit sales, credit purchases for the period are used, and this figure is compared to the average amount owed to the firm's creditors:

$$\text{Creditors turnover ratio} = \frac{\text{Credit purchases}}{\text{Average creditors}}$$

Note that this ratio only considers those purchases made on credit, as cash purchases do not affect creditors. Consider the following example, based on end-of-year data for three consecutive reporting periods for City Menswear:

	2013	*2014*	*2015*
	$	*$*	*$*
Credit purchases		40 000	50 000
Balance of creditors control	4 000	6 000	5 000

ISBN 978 1 4202 3058 1

For the year 2014:

$$\text{Creditors turnover} = \frac{\$40\,000}{\$5\,000}$$

$$= 8.0{:}1 \text{ or } 8 \text{ times per annum}$$

$$\text{Converted to days:} \quad \frac{365}{8} = 45.625 \text{ or } 46 \text{ days}$$

For the year 2015:

$$\text{Creditors turnover} = \frac{\$50\,000}{\$5\,500}$$

$$= 9.09{:}1 \text{ or } 9.09 \text{ times per annum}$$

$$\text{Converted to days:} \quad \frac{365}{9.09} = 40.154 \text{ or } 40 \text{ days}$$

The trend in this ratio is favourable, as the credit purchases have increased over time, yet the average repayment period has decreased by six days (from 46 to 40). The reason for such a change may be difficult to pinpoint. (It could be linked to improved performance in the area of debtors turnover.) Remember from section 20.4 that the business reduced the average collection period from debtors from 41 days to 31 days over the two-year period. As the firm was receiving cash at an earlier time from its debtors, this may have allowed it to settle accounts with suppliers at a faster rate.

As with the other two turnover rates demonstrated earlier in this chapter, the creditors turnover formula may be reworked so that the number of days is determined in a one-step process. The formula to do so is:

$$\text{Creditors turnover in days} = \frac{\text{Average creditors}}{\text{Credit purchases}} \times 365$$

The calculations for the two years would then be:

		2014		2015
Creditors turnover in days	=	$\frac{\$5\,000}{\$40\,000} \times 365$		$\frac{\$5\,500}{\$50\,000} \times 365$
	=	46 days	=	40 days

The creditors turnover rate should be compared to the credit terms offered by suppliers. (Some suppliers may tolerate an occasional late payment, but generally they will not be happy if their credit terms are continually abused.) The ultimate penalty a business may suffer if credit terms are constantly abused is a refusal to supply in the future. That is, a creditor may simply cut off supply to a business if they are always late with their payments. This may be a hefty price to pay, particularly if the supplier's products are a fast-moving inventory item. The creditors turnover rates should also be compared with previous reporting periods, so that any significant trends can be identified. The budget expectations of management may also be used as a yardstick of measurement. Always keep in mind that the creditors turnover rate may change because of the needs of management at a particular point in time. The ability to repay creditors may simply reflect the current state of the liquidity of the business; that is, its ability to meets its debts as they fall due. For example, if ample cash resources are available, the creditors turnover rate may fall sharply. At other times cash reserves may be low, perhaps because of seasonal

ISBN 978 1 4202 3058 1

variations in business or simply because the economy itself has slowed down. If consumers are not spending, stock turnover will fall and debtors turnover may also slow down as money becomes tight.

The tasks of managing and controlling stock, debtors and creditors must not be viewed as isolated activities. They comprise the most crucial tasks faced by anybody managing a small business that is involved in trading activities. It is highly likely that any manager who does not give these areas sufficient attention is doomed to failure. The ability to buy and sell stock at a fast enough rate, coupled with the demands of collecting cash from debtors and then paying cash to creditors, will determine how successful a firm will be. It is indeed a challenge to manage the balancing act between the cash cycle of a firm and the creditors turnover rate achieved by that firm. This, in essence, is what a trading business is all about.

› GLOSSARY OF TERMS

age analysis of debtors a table that classifies debtors' accounts according to the age of their debt.

cash cycle the process of turning stock into sales, and then turning these sales into cash. It is calculated by adding together stock turnover and debtors turnover.

creditors turnover ratio a financial indicator that determines the average time taken by a firm to pay its creditors' accounts.

debtors turnover ratio a financial indicator that determines the average time taken by debtors to settle their accounts.

just in time ordering a method of purchasing inventory whereby the new order of goods arrives just before the business runs out of stock.

stock turnover ratio a financial indicator that determines the number of times stock has been turned into sales during a period. It also can be expressed as the number of days needed to turn stock over once.

ISBN 978 1 4202 3058 1

Summary questions

1. Explain why it is important for an owner to constantly monitor the inventory held by a trading business.
2. Describe the role played by the setting of minimum and maximum levels of inventory.
3. Explain why all forms of inventory should be rotated when new stock arrives in a store.
4. State five different security measures a trading firm may have in place to protect stock.
5. Describe the two different ways a stock turnover rate can be interpreted.
6. 'All trading firms should aim for a minimum stock turnover of 12 times per annum.' Do you agree? Justify your answer.
7. A trading firm increased its cost of goods sold from $80 000 in 2014 to $88 000 in 2015. The owner of the business claims that this indicates an increase in stock turnover of 10%. Is this necessarily correct? Explain your answer.
8. What is an age analysis of debtors? What is its purpose?
9. What does a debtors turnover ratio evaluate? Explain how it is calculated.
10. Spotswood Sports has a debtors turnover of 15 times per annum. It allows its debtors a maximum of 30 days' credit. Comment on the results achieved by this firm in relation to its debtors' accounts.
11. State, and describe, three different tactics that management may adopt to try to increase the debtors turnover rate.
12. Explain what is meant by the term 'cash cycle'. How is it calculated?
13. What problems may exist in a trading firm that experiences an increasing cash cycle? Explain fully.
14. What does a creditors turnover ratio measure? Outline how it is calculated.
15. 'A creditors turnover ratio should not be predetermined, as it depends on other factors.' State and describe two factors that should be taken into account when evaluating a creditors turnover rate.
16. Is there a problem with a low creditors turnover? Explain the possible implications of having a low creditors turnover rate.

ISBN 978 1 4202 3058 1

Practical exercises

[Exercise 20.1] On 1 January 2015 Cadman's Toy Store had stock on hand of $46 400. During 2015 the business sold goods for a total of $294 000. The cost price of goods sold totalled $206 480 and inventory as at 31 December 2015 was valued at $42 200. The management of the business has stated that the stock turnover in 2014 was 4.2 times per annum.

- **a** Calculate the stock turnover rate for 2015 for Cadman's Toy Store.
- **b** Convert the stock turnover rate for 2015 and 2014 into days.
- **c** Compare the results of 2015 to those achieved in 2014. Write a brief comment on the trend in the stock turnover rate.

[Exercise 20.2] The following information relates to two similar firms:

	Betty's Books	*Belinda's Books*
	$	*$*
Stock (1/1/15)	54 200	51 600
Stock (31/12/15)	52 800	54 200
Cost of goods sold for 2015	307 625	280 370

- **a** Calculate the stock turnover rate in times per annum and in days for each of the above-named businesses for 2015.
- **b** Which firm has managed its investment in inventory more efficiently during 2015? Explain your answer fully.
- **c** What other information could you use to evaluate the success or otherwise of the stock turnover rates determined in **a**?
- **d** 'If the stock turnover ratio has increased, it means the business has sold more goods.' Do you agree? Explain your answer fully.

[Exercise 20.3] Danielle McLean is the owner of Aussie Camping Gear. She has provided the following financial data from her business records:

	2012	*2013*	*2014*	*2015*
	$	*$*	*$*	*$*
Cost of goods sold	122 000	124 000	128 000	134 000
Balance of stock control	35 600	36 000	38 500	44 500

McLean is quite happy with the firm's performance over the last few years, as she has noted that the cost of goods sold has increased every year.

- **a** Calculate the stock turnover rates for McLean's business for the years 2013, 2014 and 2015.
- **b** Convert the turnover rates into days for each of the three years.

ISBN 978 1 4202 3058 1

c Comment on McLean's observations about the firm's performance, taking into account your turnover calculations.

d Explain how stock cards can assist an owner of a trading firm in improving stock turnover results.

[Exercise 20.4] Fancy Fabrics had total debtors of $12 400 on 1 January 2015, while on 31 December 2015 debtors were $11 600. Credit sales for the year were $174 000. The business offers credit customers 30 days to settle their accounts.

a Calculate the debtors turnover in terms of times per annum.

b Express the turnover rate in days to show the average time taken for settlement of accounts.

c Comment on the performance of the firm in controlling its debtors.

d Explain how an age analysis of debtors may help management in controlling its debtors.

e If this business has a stock turnover rate of five times per annum, calculate the length of the cash cycle. Explain the significance of this result.

[Exercise 20.5] The following information has been provided by the management of two computer retailers. Both firms supply goods on 30 days' credit to regular customers.

	Tiffany's Computers	*Michelle's Computers*
	$	*$*
Debtors balance as at 30 June 2014	16 500	22 800
Debtors balance as at 30 June 2015	18 300	19 400
Cash sales for the year	204 600	225 600
Credit sales for the year	187 920	247 925

a Calculate the debtors turnover in times per annum for both businesses.

b Convert the debtors turnover into days and write a brief comment on the firms' collection procedures.

c State four steps management could undertake to improve debtors turn-over.

[Exercise 20.6] The manager of Modular Furniture has asked for your assistance in relation to the debtors of the business. The invoices sent to the debtors state clearly that the credit terms are 60 days. No discounts are offered for early payment. The following summary of the firm's debtors was drawn up at the end of October 2015:

Age analysis of debtors

Total debtors	0–30 days	31–60 days	61–90 days	91–120 days	121 days and over
$42 500	$3 400	$29 750	$4 250	$2 975	$2 125

ISBN 978 1 4202 3058 1

The manager is not overly concerned, because he has been told that most debtors should be in the top of the age analysis table. As the business sells on 60 days' credit, he is happy that most debtors are in the 0–60 day categories.

a Redraft the age analysis table by adding a percentage breakdown of each category.

b Comment on your percentage analysis, particularly in light of the manager's statement. Highlight any major concerns you have about the results.

c What changes would you recommend to this manager in relation to the way the business deals with debtors? State, and explain, at least three recommendations for the manager to consider.

[Exercise 20.7] The following age analysis of debtors was supplied by the management of The Super Stationery Store:

Age analysis of debtors as at 31 December 2014

Total debtors	0–30 days	31–60 days	61–90 days	91 days and over
$17 800	$12 460	$3 560	$1 246	$534

Age analysis of debtors as at 31 December 2015

Total debtors	0–30 days	31–60 days	61–90 days	91 days and over
$19 600	$14 700	$4 312	$392	$196

ADDITIONAL INFORMATION:

- The business allows 30 days' credit to its customers.
- Credit sales for 2015 totalled $220 000.
- Debtors turnover was 8.5 times in 2014 and 8.9 times in 2013.

a Prepare an age analysis of debtors for 2015 in percentage terms.

b Calculate the debtors turnover rate for 2015.

c Determine the average collection period (in days) for 2013, 2014 and 2015.

d Refer to your answers in **a**, **b** and **c** and comment on management's effectiveness in collecting its debts during the 2015 reporting period.

[Exercise 20.8] Perera's Plumbing Supplies allows 60 days' credit to its regular customers. During 2015 the business sold $285 000 worth of goods on credit. The management of the business has provided the following details relating to debtors at the end of the year, along with the equivalent details from the previous year.

ISBN 978 1 4202 3058 1

Age analysis of debtors as at 31 December 2015

Total debtors	0–30 days	31–60 days	61–90 days	91 days and over
$44 800	$23 000	$16 200	$5 150	$450

Age analysis of debtors as at 31 December 2014

Total debtors	0–30 days	31–60 days	61–90 days	91 days and over
$49 200	$23 500	$12 400	$10 960	$2 340

The debtors turnover rate for 2014 was five times (73 days)

a Calculate the debtors turnover rate for 2015 in both times per annum and days.

b Calculate an age analysis of debtors for 2014 and 2015 to show the percentage of debtors in each category.

c Comment on the success or otherwise of management's collection of debts over the last 12 months.

[Exercise 20.9] Gowland's Book Store had creditors of $12 800 on 1 October 2014, while on 30 September 2015 creditors totalled $14 400. Credit purchases for the year were $156 000. The business purchases its inventory on credit terms of 30 days.

a Calculate the creditors turnover in terms of times per annum.

b Express the turnover rate in days to show the average time taken to pay creditors' accounts.

c Comment on the performance of the firm in meeting its commitments to its suppliers.

[Exercise 20.10] The owners of two furniture retailers have provided the following information.

	Parry's Furniture	*Murphy's Furniture*
	$	*$*
Creditors balance as at 31 Dec. 2014	31 400	23 400
Creditors balance as at 31 Dec. 2015	36 800	26 200
Cash purchases for the year	123 400	112 800
Credit purchases for the year	320 000	383 750
Credit terms of suppliers	30 days	30 days

a Calculate the creditors turnover in times per annum for both businesses.

b Convert the creditors turnover into days and write a brief comment on the two firms' payment procedures.

c State two reasons why creditors turnover may not be in compliance with the credit terms offered by suppliers.

ISBN 978 1 4202 3058 1

[Exercise 20.11] Tony Arthurson, the owner of Marcellin Sports Store, is concerned about how long he is taking to repay some of his suppliers. Arthurson purchases all the inventory for his business on credit. He sometimes gets reminders about his credit accounts, but needs some actual data to give him some detail about what is happening in his business. The following information was extracted from his final accounting reports at the end of the last three years:

	2013	*2014*	*2015*
	$	*$*	*$*
From the income statements:			
Cost of goods sold		88 000	92 000
From the balance sheets:			
Balance of stock control	25 400	28 300	32 200
Balance of creditors control	4 900	5 900	7 100

a Reconstruct the stock control account to determine the credit purchases made by Arthurson during 2014 and 2015.

b Calculate the creditors turnover rates for 2014 and 2015, in days per annum.

c Comment on the turnover results you have calculated in part **b**. Should the owner be concerned? Give reasons for your answer.

[Exercise 20.12] The following information relates to Dalrymple Timber Supplies:

	1/1/15	*31/12/15*
	$	*$*
Inventory on hand	24 600	25 800
Debtors balance	11 900	13 100
Creditors balance	12 500	14 400
Credit sales for the year		181 250
Cost of goods sold for the year		131 040
Budgeted stock turnover		60 days
Stock turnover rate in 2014		72 days
Standard credit terms for debtors		30 days
Debtors turnover rate in 2014		32 days
Credit terms of suppliers		30 days

Note: all inventory purchases are made on credit

a For 2015, calculate the stock turnover and debtors turnover in days.

b Determine the length of the cash cycle.

c Reconstruct the stock control account to determine the credit purchases for the year.

d Calculate the creditors turnover ratio and convert it to days.

ISBN 978 1 4202 3058 1

e Comment on the trend in the cash cycle and the success of the firm in meeting its objectives with regard to the turnover of inventory and debtors.

f Compare the cash cycle to the creditors turnover rate. Are there any dangers in what is happening in this business at the moment? Explain your answer fully.

CASE STUDY

This case study involves visiting a number of small businesses that conduct trading activities. It is recommended that you visit a minimum of three different businesses (unless advised otherwise by your teacher). Some of the required information can be gained by simply walking through retail outlets and using your observation skills. Alternatively, you may be able to complete many of the case study tasks from your knowledge of businesses, particularly in your local shopping area. For parts of this case study, your teacher may require you to conduct interviews with a few business owners or managers.

1 Stock control

Locate some of the following examples of businesses and investigate the strategies used by management in order to protect the inventory of the business:

- department store
- supermarket
- music store
- hardware store
- computer shop
- clothing store.

Write a report outlining the different approaches taken by various business owners in trying to control the stock within their businesses. Highlight any differences you have noticed in the various businesses.

2 Debtors control

Compile a list of the various tactics that business owners use to try to get debtors to pay their accounts on time. Make your own comments on the likely success or failure of each tactic. (Note: with the widespread use of credit cards and EFTPOS, many small businesses no longer operate their own credit accounts. You should try to locate some businesses that do offer their own credit facilities.)

3 Creditors control

How do business owners manage the payment of their creditors' accounts? Compile a list of the various approaches used by small business owners. Try to encourage them to be frank about the way they organise creditors' payments. Likely examples include:

- 'I pay everything on the 30th of each month.'
- 'I always wait until I get a second reminder.'

Make your own personal comments on the strengths and weaknesses of the various approaches.

ISBN 978 1 4202 3058 1

Chapter 21

Budgeting: planning for the future

OBJECTIVES

At the completion of this chapter, you should be able to:

- explain the need for budgeting in small businesses
- outline the role played by a variety of budgets
- identify relevant items used in the different types of budgets
- reconstruct ledger accounts to find information relevant to budgeting
- prepare budgeted cash flow statements, budgeted income statements and budgeted balance sheets
- prepare schedules of collections and payments
- explain the links between the different types of budgets
- prepare budget variance reports
- identify both favourable and unfavourable variances
- suggest possible causes of variances.

ISBN 978 1 4202 3058 1

21.1 The need for budgeting

Budgeting is a means of planning and controlling the future financial transactions of a business. The budgeting process involves making estimates of what is expected to happen some time in the future. All businesses have a need for budgeting because all managers should have a basic financial plan. Such plans may include making sales of a particular value, increasing market share to a specific percentage or generating a certain rate of return on the owner's investment. A financial plan can be prepared and then modified as necessary in order to improve the performance of the business. This is preferred to not having a plan at all, whereby the business would be allowed to run haphazardly without control or interference.

Some budgets set targets of achievement, while others set limits of expenditure. For example, a **sales budget** can be used to provide estimates of the future revenue of a business. This provides a target for management and its employees to aim for in the forthcoming reporting period. Such a budget may be used to provide incentives for staff to improve their individual performance. If every employee improved performance, the overall business would benefit in terms of sales and probably profits. Other budgets simply aim to control the costs of a firm. Sometimes expenses are grouped together to identify cost centres within a business. Budgets can also be based on these cost centres and can therefore provide constraints over the firm's spending as well as facilitating accountability. Therefore, an **expense budget** is used to plan the future expenses of the business and hopefully put a ceiling on spending within particular segments of the firm. Management may choose to have a very complex budget plan or may simply choose to prepare one or two of the more commonly used budget tools. Figure 21.1 lists some of the types of budgets that may be used by small business owners and/or managers.

Figure 21.1 Types of budgets and their purposes

Master budget	Sets out the overall planning strategy of the business and is made up of information from many of the other types of budgets.
Sales budget	Predicts the future sales revenue expected to be earned by the business. A sales budget usually includes quantities expected to be sold and the anticipated selling prices of the various products.
Purchases budget	Estimates the cost of purchases required to meet the anticipated sales of the business.
Labour budget	Can be used to predict the staff required and the cost of wages and salaries for the reporting period.
Expense budget	Outlines the cost of all expenses necessary to meet the firm's plans.
Budgeted cash flow statement	Predicts the future cash inflows and cash outflows of the business, with the final figure being the predicted cash balance at one point in time.
Budgeted income statement	Provides a summary of all revenues and expenses for a period, with the final figure being the predicted net profit or net loss for the reporting period.
Budgeted balance sheet	Estimates the future financial position of the business. This includes predictions of assets, liabilities and the owner's equity at a particular point in time.

Regardless of the type of budget being prepared, it is crucial that the budgeting process remains flexible. As budgets involve predictions of future events, they are not expected to be perfect. Budgets are simply a tool for planning future events. As time passes, the budget plan should be reviewed and updated as required. A budget should not be locked in indefinitely. Modifications

ISBN 978 1 4202 3058 1

should be made as more up-to-date information becomes available. The performance of a budget must be evaluated and modified if needed. This point is covered in detail later in this chapter. (Refer to budget variance reports in section 21.8.)

Perhaps the most important budget for many small trading firms is the sales budget, which involves estimating the future sales of the business. The sales budget is crucial to the overall budgeting process, as the sales forecasts have a direct link with many of the other types of budgets prepared by management. For example, the sales made by a business will hopefully lead to an inflow of cash some time in the future. Thus the sales forecast has a direct impact on the estimated cash flows of the firm. The sales not expected to be collected in a given period lead to an estimated debtors balance, which becomes part of the budgeted balance sheet. As both cash and credit sales are usually recognised as revenue earned during a period, the sales forecast has a direct link with the budgeted income statement. The estimate of sales also leads to other predictions such as stock requirements, estimated purchases and staffing needs. The sales budget is therefore the cornerstone of the budgeting process. Once management has made estimates of sales, the future needs of the business in general can be estimated.

There are also other types of budgets that can be prepared by small business owners. For example, a capital budget should be prepared to plan the replacement of assets (also known as capital items) in the future. Assets such as equipment, machinery, shop fittings and computers involve a considerable capital outlay and businesses rarely have cash available at a moment's notice to replace such items. Management must plan in great detail how such assets will be replaced when they have reached the end of their useful working lives. A capital budget also has an impact on several other budgets. As non-current assets are involved, the budgeted balance sheet is directly affected. If cash is paid for assets, the budgeted cash flow statement must reflect the cash outflow expected to occur for asset purchases. Once assets are purchased, the depreciation of such items will be shown in a budgeted income statement.

Depending on the size of the business under consideration, other budgets may also be prepared. If a business consists of several departments, budgets may also be prepared on a departmental basis. Sales targets can be set on a departmental basis and expense budgets can also be prepared along these lines. This is yet another example of how accounting (and budgeting specifically) must be designed to meet the needs of the individual business. Budgeting is a tool that, if used properly, can provide a plan for management to follow into future reporting periods. This type of plan should anticipate improvements in the performance of the business. By developing a plan, management should be able to decide if the plan is satisfactory or if changes need to be made. This is the essence of budgeting: to plan and control future financial events expected by a business and its management. Although it is important to have an overview of the complete budgeting process, this chapter provides a focus on three key types of budgeting, namely budgeted cash flow statements, budgeted income statements and budgeted balance sheets.

21.2 Cash budgeting

A **budgeted cash flow statement** looks at the future cash inflows and outflows of a business. The budgeted cash flow statement is particularly important for trading firms because of the significant investment made by management in the stock sold by the firm. The success of a trading business is largely determined by the ability of management to turn its investment in stock into cash on a regular basis. As many firms purchase inventory on credit over 30 or 60 days, it is crucial to know the expected cash situation of the business in the forthcoming months.

ISBN 978 1 4202 3058 1

Although stock is crucial to the performance of a trading firm, the preparation of a budgeted cash flow statement must take into account all future inflows and outflows of cash. A list of the typical items that are reported in a budgeted cash flow statement for a trading firm is shown below. They have been listed under the usual classifications used in a cash flow statement:

Anticipated cash inflows (receipts)

Operating activities:

- cash sales of inventory
- collections from debtors (from credit sales made previously)
- other revenues (for example, interest revenue, commissions)

Investing activities:

- cash receipts from the disposal of non-current assets

Financing activities:

- cash contributions by the proprietor (that is, additional capital)
- loans (for example, from banks, finance companies)

Anticipated cash outflows (payments)

Operating activities:

- cash purchases of inventory
- payments to creditors (from credit purchases made previously)
- cash payments of expense items.

Investing activities:

- cash payments for non-current assets

Financing activities:

- cash withdrawals by the proprietor
- repayments of loans.

As is the case with any form of budgeting, the most difficult task is actually making an estimate of a future event. Some cash flows are fairly constant, while others may fluctuate wildly. For example, an expense such as rent may be stipulated in a written contract and therefore is quite easy to estimate for the next three months. The cash outflows for items such as telephone and electricity are also usually stable. The amounts paid in previous periods can be checked using the relevant documents, and estimates of future outflows are therefore quite easy. However, some predictions are very difficult to make, and perhaps the most difficult one is that of the sales forecast and the cash flows that result from such sales. Management may, for example, examine the accounting records from the same month last year or the year before. This provides a starting point, but management should conduct market research on a periodical basis to help plan the future of the business. Market research can take into consideration questions such as:

- Is the business likely to continue to trade as successfully as it did last year?
- Does the business plan to sell the same inventory lines, or does it plan to experiment with an expanded range of products?
- Are there new competitors in the market—either generally or in the local area?
- Are there any external factors that are likely to affect the business (for example, government decisions, the state of the economy, environmental factors)?
- Is the local demand for the firm's products likely to change? Population changes can affect many small businesses. For example, a fashion boutique may have to alter its approach in an area with an ageing population. However, a hardware store in an area experiencing a building boom may have to consider expansion. A basic question is whether the business can cater to the tastes of the local population.

ISBN 978 1 4202 3058 1

- Will technology affect the business? With rapid technological change there is always pressure on businesses to keep up with modern trends.
- Can the business cope with the expected demand? There is little value in increasing a sales forecast figure because of a perceived demand if it is unlikely that the firm can cope with such a level of turnover.

Once a firm has taken into account factors such as those listed above, it should be able to make an educated and informed estimate of sales. As with any form of budgeting, it must always be kept in mind that it is still only an estimate and that it is not expected to be perfectly accurate. However, as the sales forecast is used in other forms of budgeting, management should ensure that all relevant information is available before sales estimates are finalised. An informed decision is more likely to result in an accurate budget than one based on guesswork because of a lack of information.

21.3 Case study: preparing a budgeted cash flow statement

If a trading firm buys and sells on credit, it is important to realise that sales and purchases do not automatically equate to cash flows. As a budgeted cash flow statement predicts future inflows and outflows of cash, steps must be taken not only to predict future sales and purchases, but also to predict when such transactions will result in a movement of cash. This case study examines the processes involved in determining cash flows from future transactions.

Marie Christofidis is the proprietor of Kids' Collection, a small business specialising in children's clothes. Marie is thinking of purchasing a new computer system for her business at a cost of about \$2000. On 1 July 2015 the firm's bank account had a debit balance of \$250. Marie has asked for a quarterly budget (July–September) to be prepared to determine when she can buy the computer. The following relevant information has been made available.

After extensive market research and by studying last year's figures, Marie has estimated that the following sales estimates will be reasonably accurate:

Sales information (including 10% GST)

Actual	– April	\$10 450
	– May	\$10 450
	– June	\$11 000
Estimated	– July	\$11 000
	– August	\$13 200
	– September	\$15 400

Based on past experience it has been established that 70% of total sales are made on a cash basis, with the other 30% of sales being made on credit. When sales are made on credit, 60% of debtors pay in the month after sale, 25% pay in the second month after sale and the remaining 15% usually pay in the third month after the sale has occurred.

In order to satisfy the above sales requirements, Marie estimates that the following purchases will be required:

ISBN 978 1 4202 3058 1

Purchases information (including 10% GST)

Actual	– May	$6 600
	– June	$6 600
Estimated	– July	$7 700
	– August	$8 800
	– September	$9 900

Marie normally purchases all of her inventory requirements on 30 days' credit. Of these credit accounts, 90% are usually settled in the month after purchase to take advantage of a 2% discount. The remaining 10% are usually paid in the second month after purchase.

When questioned about other regular cash payments, Marie supplied the following list:

Wages paid to an assistant	$380 per week
Advertising	$200 per month, plus $20 GST
Window cleaning	$60 per week, plus $6 GST
Cash drawings	$500 per week

In addition to the regular payments, it was noted that the insurance on the shop is due for payment on 1 July and is expected to be $600, plus $60 GST. Marie also has a telephone bill for $180 (plus $18 GST) which was due on 27 June. She intends to pay the account in the first week of July. Marie also owes the Australian Taxation Office $500 for GST and this is due by 28 July.

The first step in preparing a budgeted cash flow statement for Kids' Collection is to determine the cash flows that are expected to occur as a result of the sales made by the firm. As both cash and credit sales are made, it is important to calculate the dollar value for each of these items. The table shown in figure 21.2 should therefore be prepared.

Figure 21.2 Cash/credit sales analysis table

Month	Total sales $	Cash sales 70% $	Credit sales 30% $
April	10 450	7 315	3 135
May	10 450	7 315	3 135
June	11 000	7 700	3 300
July	11 000	7 700	3 300
August	13 200	9 240	3 960
September	15 400	10 780	4 620

ISBN 978 1 4202 3058 1

Having calculated the values for cash and credit sales, one anticipated cash flow has already been identified for the budgeted cash flow statement. The cash sales figures for July, August and September in figure 21.2 will go directly into the budgeted cash flow statement, as this is the period under examination. As credit sales are not a cash flow, a further step is required to determine when debtors are likely to pay their accounts. A **schedule of collections** from debtors solves this problem and is shown in figure 21.3.

Figure 21.3 Schedule of collections from debtors

Month	Credit sales	Collections in:		
	$	July $	August $	September $
April	3 135	470		
May	3 135	784	470	
June	3 300	1 980	825	495
July	3 300		1 980	825
August	3 960			2 376
Total to be received		3 234	3 275	3 696

The collections schedule shown above has been used to calculate the expected cash flow resulting from the credit sales of the business. Using the past history of the firm, the pattern of collections has been used to stagger the expected cash receipts over a three-month period. Looking at the month of June as an example, the $3 300 worth of credit sales are expected to be collected as follows: 60% in July ($1 980), 25% in August ($825) and the remaining 15% in September ($495). The credit sales of April are relevant to the collections schedule shown above because 15% of April's sales are expected to be collected during the month of July, which is part of the quarterly budget period. Note that most of April's credit sales are irrelevant to the budget period. As 60% of April's sales would have been collected in May and 25% would have been received during June, the amounts received in these months have no relevance to the July–September period. Only those receipts expected in July (that is, 15% of April's sales) have been recorded in the schedule, as they will result in cash flows during the budget period. Also, it can be noted that the credit sales of September are totally irrelevant to the collections schedule, as they are expected to result in cash receipts during the months of October, November and December.

Having determined the anticipated cash receipts resulting from the sales made by the business, the next step is to find the expected cash outflows that result from the firm's credit purchases. A schedule showing anticipated payments to creditors can be used for this purpose, and using the data given earlier this would be prepared as shown in figure 21.4 on page 442.

ISBN 978 1 4202 3058 1

Figure 21.4 Schedule of payments to creditors

Month	Credit purchases $	Payments in:		
		July $	August $	September $
May	6600	660		
June	6600	5821	660	
July	7700		6791	770
August	8800			7762
Total to be received		6481	7451	8532

The **schedule of payments** to creditors is based on the usual pattern of payments by the management of Kids' Collection. Note that when the payment occurs in the month after purchase, the 2% discount has been deducted as this is not a cash outflow. Using the month of June as an example, 90% of the credit purchases are expected to be paid in July when the discount will be received.

Thus accounts to be paid are: 90% of $6600	=	$5940
less the discount available: 2% of $5940	=	$ 119
Actual cash payment anticipated	=	$5821

The purchases in the month of May are relevant to the budget period because 10% of May's purchases are expected to be paid in July (that is, two months after purchase). As all purchases are made on a credit basis, the purchases expected to be made in September are not included in the above schedule because they are expected to be paid in the months of October and November.

Having completed schedules to determine the cash flows involving both debtors and creditors, the budgeted cash flow statement can now be prepared, and is shown in figure 21.5 on page 443. Note that the GST collected as part of cash sales has been reported separately, as has the GST paid on expenses.

The format of the above budgeted cash flow statement is preferable to simply adding up all receipts and payments for the quarter and presenting them as one figure. This report allows management to calculate an estimated cash balance at the end of each month. It also provides a manager with information in relation to the three areas of cash flows. The increase in cash flows from operations is clearly a positive trend. It is also evident that the bank account is expected to move from an opening balance of $250 at the start of July to an estimated overdraft of $659 by the end of July. This is then expected to improve to a positive balance of about $400 by 31 August and up to $2341 by 30 September. In relation to the business of Kids' Collection, the answer to the proprietor's original question is that the computer system should be able to be purchased during the month of September. As the system is expected to cost about $2000, there will not be sufficient cash during July or August if the budget proves to be accurate. One point to always keep in mind is that when a business owner collects GST on its sales, this money has to be forwarded to the tax office at some point in the future (less any GST paid, of course). In the above example, the business will have a GST liability owing to the tax office after the

ISBN 978 1 4202 3058 1

Figure 21.5 Quarterly budgeted cash flow statement

Kids' Collection: budgeted cash flow statement for quarter ending 30 September 2016

	July	*August*	*September*
	$	*$*	*$*
Cash flows from operating activities			
Cash sales	7 000	8 400	9 800
Collections from debtors	3 234	3 275	3 696
GST received	700	840	980
Payments to creditors	(6 481)	(7 451)	(8 532)
Wages—assistant	(1 520)	(1 520)	(1 520)
Advertising	(200)	(200)	(200)
Window cleaning	(240)	(240)	(240)
Insurance	(600)		
Telephone	(180)		
GST settlement	(500)		
GST paid	(122)	(44)	(44)
Net cash provided by operating activities	1 091	3 060	3 940
Cash flows from investing activities			
Nil	–	–	–
Cash flows from financing activities			
Cash drawings	(2 000)	(2 000)	(2 000)
Net cash used by financing activities	(2 000)	(2 000)	(2 000)
Net increase (decrease) in cash held	(909)	1 060	1 940
Cash held at beginning of month	250	(659)	401
Cash held at end of month	(659)	401	2 341

transactions of July, August and September. All business owners must take great care to ensure that they keep sufficient cash in their accounts to be able to meet their GST liability. Keeping this point in mind, management must then decide whether to wait until after September or, if this is not satisfactory, alter its plans in light of the information revealed by the budgeted cash flow statement. This may lead to such decisions as:

- the owner making an additional capital contribution
- the owner cutting back on the level of personal drawings
- reducing and/or postponing the payment of expenses
- borrowing the required cash from an outside party (for example, a bank)
- leasing a computer rather than purchasing the asset.

In a different business situation, a budgeted cash flow statement may indicate that surplus cash is expected to be available in future reporting periods. In cases of surplus cash balances, management may have to decide how best to utilise the available cash. Decisions to be considered may be:

ISBN 978 1 4202 3058 1

- to reduce debt by paying off some liabilities
- to purchase non-current assets, as excess cash is expected to be available
- to purchase inventory for cash, thus taking advantage of discounts that may be available
- to withdraw cash for personal use, while the business can afford it.

The basic role of a budgeted cash flow statement is to determine if a business is likely to have a shortage of cash or excessive cash at the end of a given period. Management must then respond to the results of the budgeted cash flow statement to ensure that the firm's plans will not fail simply because of a shortage of cash when it is required. The budgeted cash flow statement also has links with both the budgeted income statement and the budgeted balance sheet. Many cash flows are also revenues or expenses and will appear in a budgeted income statement as well. (For example, cash sales is a revenue item and wages paid in cash is an expense item.) The estimated cash balance, as determined by the budgeted cash flow statement, goes straight into the budgeted balance sheet since it represents the expected value of a current asset in the future. These points are explained further in the following sections.

21.4 Budgeted income statements

A **budgeted income statement** is used to examine the predicted revenues and expenses of a business over a given period of time. Whereas the budgeted cash flow statement looks at the firm's future cash position, the budgeted income statement allows management to investigate the likely profitability of the business. Earning a profit is a basic objective for most small businesses and it is vital that management has information relating to the future earning potential of the firm. The format of the budgeted income statement is exactly the same as the historical type of profit report. The only difference is that the dollar values in the budgeted report are predicted results rather than historical fact. The usual definition of profit under accrual accounting is used in the budgeted income statements in this text. That is, budgeted profit equals revenue expected to be earned during the budget period less the expenses expected to be incurred in that period. It is important to be able to distinguish between the items relevant to a budgeted cash flow statement and those that are used to prepare a budgeted income statement. Figure 21.6 highlights the differences between the two types of reports.

Figure 21.6 Comparison of the items relevant to a budgeted cash flow statement and a budgeted income statement

Included in a budgeted income statement	Included in a budgeted cash flow statement
Revenue earned	Revenue received
Expenses incurred	Expenses paid
Credit sales	Collections from debtors
Cost of sales	Payments to creditors/suppliers
Depreciation of non-current assets	Cash paid for new assets
	Cash from disposal of assets
	Cash from new loans
	Cash paid for loan repayments
	Capital contributions by owner
	Cash withdrawals by the owner

ISBN 978 1 4202 3058 1

In summary, the budgeted income statement reports on future estimates of revenue to be earned and expenses to be incurred. The budgeted cash flow statement, however, reports on all expected cash inflows and outflows, regardless of whether or not the items involve revenues and expenses. When a budgeted income statement has been prepared, management is provided with a plan of its future trading activities. This budget plan consists of several smaller budgets, which usually involve a sales budget, a cost of sales budget and an expense budget. If this plan is not to the satisfaction of management (for example, if it predicts a net loss), changes should then be made to try to improve the situation before the budget period commences. Management may have to re-examine the expense structure of the business and consider other alternatives. For example, should assets be leased rather than purchased? Is there a more efficient way of advertising the firm's products? On the other hand, management may be forced to re-evaluate the inventory being sold by the business. For example, are all departments or all lines of inventory profitable? Can some new lines of stock be introduced to improve profitability?

Ideally, these sorts of questions should be considered by management on a continuous basis in an effort to improve the performance of the firm. The value of a budgeted income statement is that it forces management to consider the future of the business. It can then be used to set goals for the firm, as well as goals for departments and individuals within the firm. Having set budget targets, management can then use them in the future to measure the performance of the business in terms of how successful management has been in achieving its set objectives.

21.5 Case study: preparing a budgeted income statement

In order to demonstrate the preparation of a budgeted income statement, the example of the business trading as Kids' Collection will again be used. Some of the details that were provided for the budgeted cash flow statement case study have been repeated:

- Estimated sales for July were $11 000, consisting of cash sales of $7700 and credit sales of $3300. By removing the GST from these figures, the actual revenue to the business would be: cash sales $7000 and credit sales $3000.
- 90% of June purchases are expected to be paid in July to take advantage of a 2% discount.
- Wages paid to an assistant are $380 per week.
- Advertising is $200 per month (plus $20 GST).
- Window cleaning costs $60 per week (plus $6 GST).
- Cash drawings are $500 per week.
- Insurance on the shop is due for payment on 1 July and is expected to be $600 for a one-year premium (plus $60 GST).
- A telephone bill for $180 (plus GST of $18), which was due on 27 June, will be paid in the first week of July. The amount of this bill is a typical quarterly bill.

Additional information not used for the budgeted cash flow statement:

- Cost of sales is usually 50% of sales revenue, as the firm applies a standard mark-up of 100% to its stock in order to determine its selling prices.
- Depreciation on shop fittings is charged at the rate of 20% per annum, using the straight-line method. On 30 June 2015 the balance of the shop fittings account was $12 000.

Using the above information, the report in figure 21.7 can be prepared to show the estimated revenues and expenses for the month of July.

ISBN 978 1 4202 3058 1

Figure 21.7 Budgeted income statement

Kids' Collection: budgeted income statement for month ending 31 July 2015

Revenue	$	$
Credit sales	3 000	
Cash sales	7 000	10 000
less cost of sales		5 000
Estimated gross profit		5 000
plus other revenue		
Discount revenue		119
		5 119
less other expenses		
Wages	1 520	
Advertising	200	
Window cleaning	240	
Insurance	50	
Telephone	60	
Depreciation of shop fittings	200	2 270
Estimated net profit		2 849

Notes to figure 21.7:

- Wages, advertising and window cleaning are exactly the same as the figures in the budgeted cash flow statement because they are paid as they are incurred.
- Insurance expense is $50, as the $600 premium is for one year. Thus the expense for July is $600/12 = $50.
- The quarterly telephone bill is usually $180. Therefore, for one month the estimated expense is $180/3 = $60.
- Depreciation of shop fittings is 20% per annum on a cost of $12 000. The cost for one year is therefore $12 000 × 0.20 = $2 400 and for one month it would be $2 400/12 = $200.
- The discount revenue comes from the settlement of 90% of June's credit purchases. That is, $600 × 0.90 = $5 940 to be settled. Therefore, 2% of $5 940 = $118.80 discount will be granted by the firm's suppliers (rounded off to $119). Note that this amount was not reported in the budgeted cash flow statement, as it does not represent a cash flow.

Once the budgeted income statement is prepared, it should then be reviewed by management in terms of a desired profit level. If the results predicted by the budget fit in with management's overall objectives, the budget should be adopted and put into action. If it is seen as unsatisfactory, it should be reviewed and changes introduced until management is happy with the goals contained in the budget. There is little use in preparing a budget if it is not going to be accepted by the staff within the organisation. A budget must be a workable document that is based on attainable goals. The budgeted income statement should be seen as a plan for the future profitability of a business and, once finalised, should be viewed as providing a target that specifies a high level of performance.

ISBN 978 1 4202 3058 1

21.6 The budgeted balance sheet

The third type of budget to be covered in detail is that of the **budgeted balance sheet**, which is a statement of a firm's predicted financial position at a particular date in the future. This budgeted statement can be used for a variety of purposes such as:

- reporting on the future situation of a firm's non-current assets (that is, capital spending)
- examining the future liquidity position of the business
- evaluating the gearing of the business in the future (that is, the extent to which the firm relies on borrowed funds)
- showing the future details of the owner's equity in the business, including details of future profits and drawings.

The format of a budgeted balance sheet is virtually the same as that of the traditional report. The only difference is that the dollar values are based on estimates of future events in a budgeted statement rather than being a report on historical results. If a business is planning an expansion program, the changes in assets can be clearly shown in a budgeted statement. If such a program were going to occur, there would also be changes expected in the equities side of the report. Additional liabilities may be created or the owner's equity may be increased in order to fund the purchase of the new assets.

The budgeted balance sheet can be classified in the usual fashion to allow management to examine changes in liquidity. The estimated future current assets can be compared with the expected current liabilities. This should help management ensure that the future plans are not going to adversely affect the business. The results of liquidity analysis from a budgeted balance sheet should be read in conjunction with a budgeted cash flow statement to ensure the firm's liquidity will be sufficient to meet the needs of the firm, not only now but also in the future.

21.7 Case study: preparing a budgeted balance sheet

In order to demonstrate the preparation of a budgeted balance sheet, the business trading as Kids' Collection will again be used as an example. The case studies earlier in this chapter, which produced a budgeted cash flow statement and a budgeted income statement for the business of Kids' Collection, will be used to provide some of the financial information in this case study. When preparing a budgeted balance sheet, a logical starting point is the most recently prepared historical statement. This report provides factual data about the business at one point in time. Having established the actual financial position of the business, this data is then used by management to make predictions for the future. These predictions take into account what is likely to happen, or expected to occur, to the business. With this in mind, the historical report in figure 21.8 has been provided on page 448.

The processes involved in the preparation of the budgeted cash flow statement and budgeted income statement for Kids' Collection also does much of the work required for the budgeted balance sheet. The following information has been extracted from the previous two budgets:

- The budgeted cash flow statement states that the cash at bank balance as at 31 July is expected to be $659 overdrawn.
- Debtors at the beginning of July were $5024. The budgeted income statement states that credit sales during July are expected to be $3000. GST charged to debtors will therefore be $300. The budgeted cash flow statement states that receipts from debtors during July are estimated to be $3234. Thus the final debtors balance is expected to be $5024 + $3000 +

ISBN 978 1 4202 3058 1

Figure 21.8 Historical balance sheet

Kids' Collection: balance sheet as at 30 June 2015

Current assets	$	$	*Current liabilities*	$	$	$
Cash at bank	250		Creditors control		7 260	
Debtors control	5 024		GST clearing		500	
Stock control	21 000	26 274	Accrued telephone expense		180	
						7 940
Non-current assets			*Owner's equity*			
Shop fittings	12 000		Capital	25 000		
less accumulated depreciation	2 400	9 600	add net profit	4 934	29 934	
			less drawings		2 000	27 934
		35 874				35 874

$300 – $3 234 = $5 090. This figure may be found via a reconstruction of the debtors account as follows:

Debtors control a/c

		$			$
Jul 1	Balance	5 024	Jul 31	Cash at bank	3 234
31	Sales/GST clearing	3 300		Balance	**5 090**
		8 324			8 324
Aug 1	Balance	5 090			

- Stock at the start of July was $21 000. Purchases during July are expected to be $7 000 (original data provided for the budgeted cash flow statement) and cost of sales for July is predicted as $5 000 (budgeted income statement). Therefore, stock as at 31 July can be determined as: $21 000 + $7 000 – $5 000 = $23 000. A Stock Control account may also be used to determine this final balance as shown below:

Stock control a/c

		$			$
Jul 1	Balance	21 000	Jul 31	Cost of sales	5 000
31	Creditors control	7 000		Balance	**23 000**
		28 000			28 000
Aug 1	Balance	23 000			

- Accumulated depreciation of shop fittings is to increase by $200 (from the budgeted income statement).
- Creditors as at 30 June were $7 260. During July, credit purchases are expected to be $7 000, plus GST of $700, and payments to creditors are estimated as $6 481. (Discount revenue on

ISBN 978 1 4202 3058 1

these payments totalled $119.) Thus the balance of creditors can be estimated as $7 260 + $7 000 + $700 – $6 481 – $118 = $8 360. The creditors control ledger account may also be used to find this final balance. This account would appear as follows:

Creditors control a/c

		$			$
Jul 31	Cash at bank	6 481	Jul 1	Balance	7 260
	Discount revenue	119	31	Stock control/GST clearing	7 700
	Balance	**8 360**			
		14 960			14 960
			Aug 1	Balance	8 360

- The GST liability as at 30 June was $500 and this was expected to be paid in July. The GST events expected in July are: GST received on cash sales $700, GST charged on credit sales $300, GST charged on credit purchases $700 and GST paid on expenses $122. This information can all be reconstructed in a GST clearing account to determine the final GST liability or refund due to the business at the end of July 2015, as shown below.

GST clearing a/c

		$			$
Jul 31	Creditors control	700	Jul 1	Balance	500
	Cash at bank	122	31	Cash at bank	700
	Cash at bank	500		Debtors control	300
	Balance	178			
		1 500			1 500
			Aug 1	Balance	178

- Prepaid insurance will be created during July. The insurance payment of $600 is for a one-year premium. Therefore $50 will be written off as an expense for July, with the other $550 being a prepaid expense as at 31 July.
- As the telephone account is paid quarterly, one month's expense will be owing at the end of July. Therefore a current liability of $60 ($180/3) will be created on 31 July.
- In relation to the owner's equity, the estimated profit for July is $2 849 and her drawings are expected to be $2 000 during the month of July.

Taking into account all of the above budget estimates, the budgeted balance sheet for Kids' Collection can be prepared as shown in figure 21.9 on page 450.

Once a budgeted balance sheet has been prepared, it should be compared with the latest historical report. Such a comparison allows management to identify the key changes that are expected to occur in the budget period. For example, changes in the liquidity and/or the gearing of the firm can be highlighted and, if need be, management can take appropriate action. This may mean making changes to the budget plan or, if the problems are not perceived as being serious, simply monitoring the situation in the future to ensure that it falls within management's expectations.

ISBN 978 1 4202 3058 1

Figure 21.9 Budgeted balance sheet

Kids' Collection: budgeted balance sheet as at 31 July 2015

Current assets	$	$	*Current liabilities*	$	$	$
			Bank overdraft		659	
			Creditors control		8 360	
			GST clearing		178	
Debtors control	5 090		Accrued telephone exp.		60	9 257
Stock control	23 000					
Prepaid insurance	550	28 640	*Owner's equity*			
Non-current assets			Capital	27 934		
Shop fittings	12 000		add net profit	2 849	30 783	
less accum. dep'n	2 600	9 400	less drawings		2 000	28 783
		38 040				38 040

21.8 Budget variance reports

Having prepared the required budgets for a business, it is vital that the performance of the firm is compared with the budgets as the budget period passes. Budgeting should be a continuous process, involving constant review. Having set a budget, management must be prepared to review its goals and adjust its budgets in light of such a review. A diagram is an effective way of representing the complete budgeting process, as shown in figure 21.10.

Figure 21.10 The budgeting process

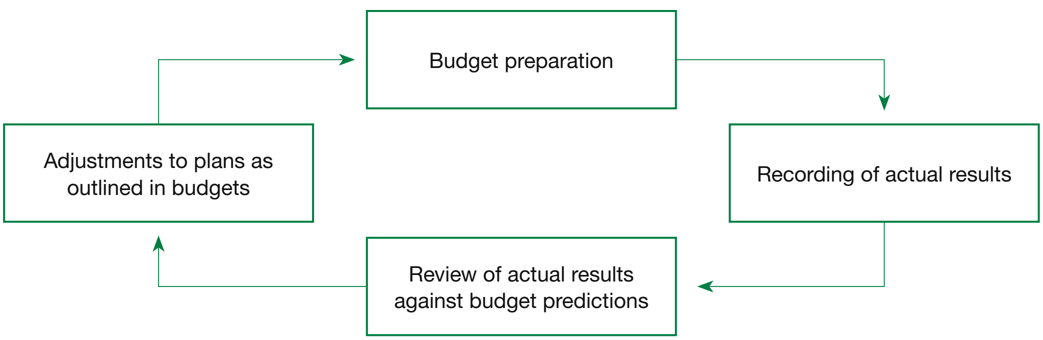


Figure 21.10 emphasises the concept that budgeting should be an ongoing, continuous process. The biggest mistake one can make when preparing a budget is to follow the 'set and forget' approach. If management expects to achieve control over its firm's operations, the prepared budgets must be continually reviewed. There is little point in preparing a detailed budgeting strategy if it is simply going to be filed away somewhere. It is therefore important to develop a systematic approach to budget review to make sure that follow-up action is always carried out.

A budget variance report (also known as a budget performance report) is prepared to show the differences between budget estimates and actual results. As a budget sets the expectations of management in terms of performance, it is important to review these results. In large businesses,

ISBN 978 1 4202 3058 1

results above budget expectations are often rewarded. For example, a business that reports on a departmental basis may offer incentives to department managers if exceptional results are achieved. This helps to reinforce the concept of a budget setting goals for the firm. On the other hand, a budget variance report may also identify areas of concern. There may be cases of overspending where a manager has not kept within budget limits. This too requires a reaction from management, but in this case it would be a negative response. Disciplinary action or perhaps even a demotion may be the result of not following management's objectives as outlined in the budget. If undesirable results are allowed to go on for too long, there is little chance of a budget being met. Therefore, even when a budget is prepared for a quarterly period, it should be reviewed after each month. If results are not as expected, decisions must be made to get the plan back in line with that outlined in the budget.

A budget **variance report** can be prepared for any type of budget. This report simply states the budgeted figure for an item, the actual results for that item and the variance between the two. A **variance** is the difference between budgeted and actual results. A **favourable variance** (or positive variance) occurs when the result is better than that expected by management. For example, if sales were predicted as $8000 and $10 000 worth of sales was achieved, this would be a favourable variance. In the case of an expense item, if wages were budgeted at $3000 and only $2800 was incurred, this too would be seen as a favourable variance. An **unfavourable variance** (or negative variance) is a result that is worse than that predicted by the budget. Therefore, if the sales achieved were only $7000 or the wages expense was $3500, both of these items would be reported as unfavourable variances.

In order to demonstrate a budget variance report, the previous example relating to the business of Kids' Collection will be used. Variance reports have been prepared to show the firm's results in the month of July. The first variance report relates to the budgeted cash flow statement. Liquidity is vital to a trading business and in this case the owner of the firm is concerned that, even though cash sales are up, the final overdrawn balance is an even worse result than that anticipated in the budget. The report in figure 21.11 can be used to identify the reasons for this unexpected result.

It is often valuable to express the variances in both dollar terms and percentages. This helps identify the more significant variances, as it must be kept in mind that minor variances are always expected to occur. A budget is based on estimates and will rarely be exact in its predictions. Significant variances from budget should be investigated and any relevant notes should be made for future reference. If a budget contains many variances, management should attempt to find explanations for these and make adjustments in its future planning. For example, two items appear in the above variance report, which the management of Kids' Collection appear to have ignored in their planning. Bad debts and legal costs did not appear in any of the budgets prepared previously. These items have now been identified as part of the budget review and should become part of future planning. On the positive side of things, management apparently decided to experiment with Sunday trading during July and as a consequence cash sales increased. (Unfortunately, this meant that the payment for wages also increased.) This too has been highlighted in the variance report and should be kept in mind by management when future budgets are being prepared. In terms of the budgeted cash flow statements for August and September, which were originally part of a quarterly budgeted cash flow statement, some of the figures may have to be adjusted in light of July's results. Ideally, at the end of each month, a budget variance report should be prepared and then a new quarterly report should be prepared. This achieves the goal of budgeting as an ongoing process that involves future planning which is continuously updated.

ISBN 978 1 4202 3058 1

Figure 21.11 Variance report for a budgeted cash flow statement

Kids' Collection: cash flow statement variance report for month ended 31 July 2015

	Budget	*Actual*	*Variance*			*Comments*
	$	*$*	*$*		*%*	
Cash flows from operating activities						
Cash sales	7 000	7 700	700	F*	10.0	Sun. trading
Collections from debtors	3 234	2 934	300	U*	9.3	Bad debt
GST received	700	770	70	F	10.0	Increased sales
Payments to creditors	(6 481)	(6 481)	Nil			
Wages—assistant	(1 520)	(1 840)	320	U	21.1	Sun. trading
Advertising	(200)	(200)	Nil			
Window cleaning	(240)	(240)	Nil			
Legal costs	Nil	(200)	200	U	100.0	Re: bad debt
Insurance	(600)	(660)	60	U	10.0	Premium incr.
Telephone	(180)	(180)	Nil			
GST settlement	(500)	(500)	Nil			
GST paid	(122)	(128)	6	U	4.9	Insurance incr.
Net cash provided by operating activities	1 091	975	116	U	10.6	
Cash flows from investing activities						
Nil						
Cash flows from financing activities						
Cash drawings	(2 000)	(2 400)	400	U	20.0	Car accident
Net cash used by financing activities	(2 000)	(2 400)	400	U	20.0	
Net increase (decrease) in cash held	(909)	(1 425)				
Cash held at beginning of month	250	250				
Cash held at end of month	(659)	(1 175)				

*F—used to denote favourable variances
*U—used to denote unfavourable variances

A budget variance report can also be prepared in relation to a budgeted income statement. In this case, the report is used to examine the profit performance of the business against the budget expectations set down at the start of the month. Figure 21.12, shown on page 453, is the income variance report for Kids' Collection for the month of July.

A budget variance report is a valuable tool that allows management to evaluate a firm's trading activities. As the budget specifies the predictions of all revenue and expense items, the variance report can be used to highlight the major variations from this budget plan. The following budget variance report clearly shows the favourable variances achieved in the revenue area. Management has noted the success of Sunday trading in achieving an increase in sales. In contrast to this is the unfavourable result in several expense items such as wages, bad debts and

ISBN 978 1 4202 3058 1

Figure 21.12 Budget variance report for an income statement

Kids' Collection: budget variance report for month ended 31 July 2015

	Budget	*Actual*	*Variance*			*Comments*
	$	*$*	*$*		*%*	
Revenue						
Credit sales	3000	3600	600	F	20.0	Sun. trading
Cash sales	7000	7700	700	F	10.0	Sun. trading
	10000	11300	1300	F	13.0	
less cost of sales	5000	5650	650	U	13.0	Incr. sales
Gross profit	5000	5650	650	F	13.0	Incr. t/over
plus other revenue						
Discount revenue	119	119	Nil			
	5119	5769				
less *other expenses*						
Wages	1520	1840	320	U	21.1	Overtime
Advertising	200	200	Nil			
Window cleaning	240	240	Nil			
Insurance	50	55	5	U	10.0	Premium incr.
Telephone	60	60	Nil			
Bad debts	0	300	300	U	100.0	I. Shiftee
Legal costs	0	200	200	U	100.0	I. Shiftee
Dep'n of shop fittings	200	200	Nil			
Total expenses	2270	3095	825	U	36.3	
Net profit	2849	2674	175	U	6.1	

legal costs. This example shows how important it is to review every item individually, rather than simply comparing predicted profit with the actual profit result achieved. Although the budgeted profit figure was only $175 off the actual net profit for July, many different items, varying from budget in a significant fashion, caused this variance. The management of Kids' Collection may view this variance report with satisfaction, since the experiment with Sunday trading appears to have produced additional revenue. This unfortunately did not cause a substantial increase in profit, due to the firm suffering bad debts of $300 and incurring some unexpected legal costs. Given that these events were probably unusual, management may look forward to future trading with enthusiasm. As with all budgeting procedures, the budgeted statements for August and beyond should take into consideration the information revealed by the July variance report. One example of such information is that the owner should consider making allowance for future bad debts, particularly if the level of credit sales is going to continue to increase. Sales estimates may also have to be reviewed if additional trading hours are going to be maintained.

ISBN 978 1 4202 3058 1

› GLOSSARY OF TERMS

budgeted balance sheet an accounting report that shows estimates of assets, liabilities and owner's equity at a specific date in the future.

budgeted cash flow statement an accounting report that shows estimates of cash receipts and cash payments, and an estimated bank balance, at a particular point in time in the future.

budgeted income statement an accounting report that shows estimates of revenues, expenses and profit over a specific period of time in the future.

budgeting the process of preparing a financial plan for a business.

expense budget a list of predicted expense items for a future reporting period.

favourable variance (or **positive variance**) a situation in which the actual result is better than the result predicted in the budget.

master budget the overall planning strategy of a business, which consists of many smaller budgets.

sales budget a report that includes estimates of all future sales. This budget usually includes the number of units expected to be sold and their estimated selling prices.

schedule of collections a table used by businesses (that sell on credit) to help predict cash inflows from debtors.

schedule of payments a table used by businesses (that purchase inventory on credit) to help predict cash outflows to creditors.

unfavourable variance (or **negative variance**) a situation in which the actual result is worse than the result predicted in the budget.

variance the difference between a budget prediction and an actual result. Variances may be presented in dollar terms and/or in percentage terms.

variance report (or **performance report**) an accounting report that is used to compare a firm's budget predictions with the actual results achieved.

Summary questions

1. Comment on the following statement: 'The sales budget is the cornerstone of the budgeting process for a trading firm.'
2. Describe the two processes involved in the preparation of a sales budget.
3. What is a budgeted cash flow statement? What does it show?
4. Outline the importance of budgeted cash flow statements when accounting for a trading firm.
5. State four items you could expect to find under the heading of operating activities that are:
   - **a** estimated inflows of cash
   - **b** estimated outflows of cash in a budgeted cash flow statement prepared for a trading firm.
6. State and describe four different factors management should consider when making estimates of future sales turnover.
7. Outline several alternative decisions management may adopt if a budgeted cash flow statement predicts a shortfall of cash.
8. Explain why the management of a trading firm should regularly prepare a budgeted income statement.
9. Distinguish between the items that are used to prepare a budgeted cash flow statement and those that are used to prepare a budgeted income statement.
10. State four items that could appear in a budgeted cash flow statement that would not appear in a budgeted income statement.
11. State four items that could appear in a budgeted income statement that would not appear in a budgeted cash flow statement.
12. What is the function of a budgeted balance sheet?
13. State and describe three different uses management may make of a budgeted balance sheet.
14. Explain the purpose of a budget variance report.
15. Comment on the following statement: 'The preparation of a budget is only one part of the budgeting process.'
16. What is a variance? Should all variances be investigated by management?
17. State one example of a favourable variance and one example of an unfavourable variance from both a budgeted cash flow statement and a budgeted income statement.
18. 'Budgeting is a continuous process.' Explain fully the meaning of this statement.

ISBN 978 1 4202 3058 1

Practical exercises

[Exercise 21.1]

Paul Goss is the owner of Box Hill Furniture Store. He is attempting to prepare a budgeted cash flow statement for his business but is unsure how to estimate the cash collections from his credit sales. He has supplied the following information and has asked for your assistance.

Credit sales for the previous two months:	May	$9 000
(including GST)	June	$10 000
Estimated future sales:	July	$11 000
(including GST)	August	$11 000
	September	$13 000

The past history of the firm's debtors shows that 80% of accounts are usually settled in the month after sale and 18% usually pay in the second month after sale. The firm has had a problem with bad debts and the remaining 2% is to be considered unlikely to be collected. Prepare a schedule of collections from debtors to show the estimated cash flows for the quarter ending 30 September 2015.

[Exercise 21.2]

The owner of Capri Jewellery, Cecilia Mandanici, has asked you to prepare estimates of the future cash inflows for her business. The shop sells on both a cash and a credit basis, with cash sales usually being 60% of total sales. Based on her years of experience in running the business, Mandanici informs you that debtors usually pay in the following way:

- 70% of debtors pay in the month following sale and are allowed a discount of 2% on their accounts.
- 20% of debtors pay in the second month after sale.
- 10% of debtors pay in the third month after sale.

Mandanici has also supplied the following sales data, which includes GST:

Actual sales:	July	$12 000
	August	$12 000
	September	$14 000
Estimated sales:	October	$15 000
	November	$16 000
	December	$20 000

a Prepare a table showing the breakdown between credit and cash sales for the six months July–December.

b Prepare a schedule of collections from debtors for the quarter ending 31 December (round off amounts to the nearest dollar).

ISBN 978 1 4202 3058 1

c Using your calculations from **a** and **b**, prepare a budgeted cash flow statement extract showing the estimated cash receipts for Capri Jewellery for the months of October, November and December (round off all amounts to the nearest dollar)

d Explain the role market research should play in the preparation of a budgeted cash flow statement.

[Exercise 21.3]

Bateup's Emporium usually purchases 80% of its inventory requirements on credit, with the other 20% of stock being bought on a cash basis. When goods are purchased on credit, 90% of debts are settled in the month after purchase, with the other 10% usually being paid in the second month after the purchase was made. The following data relate to the purchases over the last two months and the budget estimates for the next two months. All amounts include 10% GST.

Actual purchases:	May	$8 450
	June	$8 260
Budgeted purchases:	July	$8 500
	August	$9 200

a Prepare a schedule showing the breakdown of total purchases into cash and credit purchases for the months May–August.

b Prepare a schedule of payments to creditors for the two-month budget period of July and August.

c Draw up a budgeted cash flow statement extract for July–August to show the estimated payments that will result from your answers to **a** and **b**.

[Exercise 21.4]

The following information relates to the business of Colasurdo's Computers, a retail store that sells a range of personal computers and accessories. Note that GST has been included in all sales and purchases data shown below:

		Sales $	*Purchases* $
Historical data:	January	12 000	6 000
	February	15 000	8 000
	March	16 000	7 500
Projected data:	April	14 000	7 000
	May	13 000	6 500
	June	12 000	6 200

Colasurdo buys 90% of the shop's inventory on credit and pays all creditors in the month after purchase to take advantage of a 2.5% discount. Cash sales usually make up about 65% of total sales. Of the credit sales made by the shop, 50% are usually collected in the month after sale. Debtors who pay within this time are allowed a 3% discount on their accounts. Normally 40% of debtors' accounts are collected in the second month after sale, and 9% pay three months after a sale has occurred. The business suffers bad debts of around 1% of total credit sales.

a Prepare appropriate schedules to determine the expected cash flows for Colasurdo's Computers for the period April–June.

b Using the schedules from **a**, state the relevant entries that would appear in a budgeted cash flow statement for the quarter ending 30 June.

c Are bad debts reported in a budgeted cash flow statement? Explain your answer fully.

[Exercise 21.5]

Darryl Hay is the proprietor of Southern Stationery and has supplied the following information about his business:

On 1 July 2015 the balance of the bank account was $3 400.
Revenue over the last two months was as follows (including GST):

May	– Cash sales $24 000	– Credit sales $12 000
June	– Cash sales $28 000	– Credit sales $10 000

During July all sales are expected to be 8% higher than the June sales figures. Based on the past experience of the business, 60% of credit customers pay in the month after sale, with the other 40% paying in the second month after sale.

The shop had the following purchases during June (including GST):	Cash $6 000	Credit $16 000

During July, Hay expects to have cash purchases of $7 000 plus GST of $700 and credit purchases of $14 000 (plus GST). It is the firm's policy to pay all creditors in the month following the purchase of goods. The business has the following regular payments each month:

Advertising	$1 700 plus GST
Wages	$3 200
Drawings	$3 000
Loan repayments	$2 200
Cleaning of premises	$500 plus GST

The firm pays its annual insurance premium of $3 400 plus GST of $340 in two instalments, one being due on 16 January and the other on 16 July each year. Hay has also decided to renovate the shop and must make a payment of $8 000 (plus $800 GST) to the builder on 31 July 2015 and another payment of $6 000 (plus $600) on 31 August 2015, when the job should be finished.

a Prepare a budgeted cash flow statement for Southern Stationery for the month of July 2015.

b Comment on the firm's cash position, given the second payment for the renovations is due in August 2015.

ISBN 978 1 4202 3058 1

[Exercise 21.6]

Spike's Hardware Store is a small business that sells hardware to the general public. The owner has become concerned about the liquidity of the business because there is only $230 in the bank on 30 September 2015, but she has never prepared a formal budgeted cash flow statement. You have been asked to provide some assistance in this area. The following financial data has been made available:

		Sales (incl. GST) $	*Purchases (incl. GST) $*
Historical data:	July	14 000	6 000
	August	12 000	6 000
	September	14 000	7 000
Budgeted data:	October	18 000	9 000
	November	18 000	10 000
	December	20 000	10 000

The firm purchases all its inventory requirements on credit and usually pays for these goods in the month after purchase to take advantage of a 2% discount. The sales of the firm are made on both a cash and a credit basis, with the credit sales making up only about 20% of the total sales. The debtors of the firm usually pay in the following pattern: 60% in the month after sale, 30% in the second month after sale and 10% in the third month after sale.

The firm has the following regular expenses: wages $350 per week, advertising $800 per month (plus $80 GST), cleaning $130 per week (plus $13 GST), office expenses $50 per week (plus $5 GST) and depreciation of shop fittings $300 a month. The owner usually withdraws about $600 cash and $100 worth of stock each week for personal use. In addition to the regular advertising, the proprietor plans on spending $1 000 (plus $100 GST) on additional advertising in the first week of December to try to boost the shop's share of Christmas trading. During October the owner plans on buying a new computer for the business at a cost of about $3 000 (plus $300 GST). Rates on the business property are due on 15 November and are expected to be $1 650. The business also has monthly loan repayments of $800 per month.

a Prepare appropriate schedules and calculate the anticipated payments to creditors and estimated collections from debtors.

b Prepare a budgeted cash flow statement for the quarter ending 31 December 2015. Your budget should show the estimated bank balance at the end of each month. (Note: GST is not payable on rates.)

c Comment on the firm's liquidity in light of the proprietor's concerns.

[Exercise 21.7]

On 1 September 2015, Ballarat Bikes had total debtors of $3 340. The total sales made during August were $5 600, plus GST of $560. September sales are usually about 10% higher than those for August. Ballarat Bikes has a large listing of debtors, with about 60% of their total sales usually being made on credit. Cash collections from debtors during September are expected to be $2 840, with discounts of $160 being allowed to debtors for prompt payment.

a Prepare the debtors control account for the month of September 2015 to find the estimated balance of debtors at that time.

ISBN 978 1 4202 3058 1

b List the individual entries that appear in your debtors control account, along with each amount. For each entry, state the name of the budget(s) in which the item would be reported.

[Exercise 21.8]

Toorak Toys has debtors of $5400 on 1 October 2015. The total sales made during October 2014 were $6200, plus GST of $620. So far, the sales made in 2015 have been consistently 15% up on the sales made in the same month the previous year. The credit sales made by Toorak Toys make up about 40% of their total sales. Management is concerned about a number of slow-paying customers and has decided to crack down on slow payers during October. As a result, the amount owing by debtors by the end of October is expected to be only $3200. Discounts allowed to debtors during October are expected to total $82.

a Prepare the Debtors Control account for the month of October 2015 to find the estimated cash collections from debtors during that month.

b Explain how an age analysis of debtors may assist the management of Toorak Toys.

[Exercise 21.9]

Penni Roe is the owner of Western Furniture. She is trying to plan for the next quarter's trading activities and has provided some financial data from the business. The following was extracted from the firm's balance sheet as at 30 June 2015:

Balance of stock control	$42 800
Balance of debtors control	$6 400
Balance of creditors control	$4 600

During the quarter ending 30 September 2015, Roe estimates that the business will have total sales of $86000, plus GST of $8600. Cash sales usually make up 75% of the total sales made. The business sells all its stock at a 100% mark-up. (That is, the cost price of an item is doubled in order to determine its selling price.) By the end of the September quarter, the following balances are expected to be reported in the firm's balance sheet:

Balance of stock control	$46 400
Balance of debtors control	$5 800
Balance of creditors control	$5 200

a Prepare the debtors dontrol account to calculate the estimated receipts expected from debtors for the quarter ending 30 September 2015.

b Complete the stock control account to determine the credit purchases expected to be made during the quarter.

c Prepare the creditors control account to provide an estimate of the cash to be paid to creditors during the quarter ending 30 September 2015.

d From the above information, list all items relevant to the budgeted cash flow statement of Western Furniture for the September quarter. State the dollar amount for each item listed.

e From the above information, list all items relevant to the budgeted income statement for this business. State the dollar amount for each item for the September quarter.

ISBN 978 1 4202 3058 1

[Exercise 21.10] Jan Abbey is the proprietor of Abbey's Artworks. She is trying to plan her future cash flows but is unsure how to determine some of them. The following information is available for your consideration.

Balance of stock control 1 October 2015	$24 200
Balance of stock control 31 October 2015	$27 800
Balance of creditors control 1 October 2015	$6 250
Balance of creditors control 31 October 2015	$5 760
Returns of stock to suppliers expected during October	$250 (GST $25)
Discounts expected to be received from suppliers during October	$150
Sales expected during October	$12 600, plus GST $1 260
Cost of sales expected during October	$6 800

a Prepare the stock control account, showing all expected entries for October 2015.

b State the value of credit purchases expected to be made during the month.

c Prepare the creditors control account for October 2015, showing all anticipated transactions that affect the firm's creditors.

d State the cash flow expected to be made to creditors during October 2015.

[Exercise 21.11] The following statement was supplied by Hugh Tyson, the owner of City Hi-Fi Systems.

City Hi-Fi Systems: balance sheet as at 30 June 2015

Assets	$	$	*Liabilities*	$	$
Cash at bank		2 000	Accrued advertising	200	
Debtors control		4 800	Creditors control	9 200	
Stock control		32 000	GST clearing	1 000	
Furniture		2 500	Loan	6 000	16 400
Shop fittings	15 000		*Proprietorship*		
less accum. dep'n	3 000	12 000	Capital—Tyson		36 900
		53 300			53 300

ADDITIONAL INFORMATION:

- Sales for the month of July are expected to be: cash $15 000 (plus $1 500 GST) and credit $5 400 (plus $540 GST). All debtors usually pay in the month after sale and are granted a 2.5% discount.
- Purchases are all made on credit and in July they are expected to be $11 200, plus GST of $1 120. All creditors are paid in the month after purchase.
- Stock is expected to increase by $1 000 during July 2015.
- The regular monthly expenses of the firm include wages $1 200, office expenses $300, (plus $30 GST) and advertising $200 (plus $20 GST). All these items will be paid on time during July, along with the $200 of advertising owing for the month of June (plus $20 GST).

ISBN 978 1 4202 3058 1

- » Rent is payable on the first day of each month at a cost of $3000 per month (plus GST of $300 per month).
- » Depreciation of shop fittings is charged at the rate of 20% per annum on cost.
- » Interest on the loan is charged at the rate of 10% per annum and is payable on the last day of March, June, September and December. The principal of the loan is due for repayment in a lump sum on 30 June 2016.
- » A delivery van is going to be purchased in the last week of July 2015. The van is expected to cost $12 000. Half of the cost will be paid in July and the other half in August.
- » The owner of the firm usually withdraws $500 per week from the business for personal use.

a Prepare a budgeted cash flow statement for the month of July 2015.

b Prepare a budgeted income statement for the month ending 31 July 2015. (Hint: reconstruct the stock control account to determine the cost of sales for the period.)

c Prepare a budgeted balance sheet as at 31 July 2015. (Hint: Prepare the GST clearing account to determine its final balance.)

d 'Profit is not cash.' Comment on this statement and refer to examples from your budgets prepared in **a** and **b**.

[Exercise 21.12] Annemarie Burgess is the owner of Deluxe Electricals and has provided the following information in relation to the business:

Deluxe Electricals: balance sheet as at 30 September 2015

Assets	*$*	*$*	*Liabilities*	*$*	*$*
Debtors control		5 400	Cash at bank	620	
Stock control		36 000	Creditors control	6 000	
Prepaid insurance		720	GST clearing	1 100	7 720
Term deposit (maturing 31/12/16)		6 000			
Shop fittings	12 000		*Owner's equity*		
less accum. dep'n	3 600	8 400	Capital		66 800
Delivery van	20 000				
less accum. dep'n	2 000	18 000			
		74 520			74 520

ADDITIONAL INFORMATION:

- » As the business has an overdraft on 30 September, the owner is going to contribute $2000 as additional capital on 2 October 2015.
- » All of the firm's debtors with accounts outstanding as at 30 September are expected to pay during October, with the exception of one account for $500. This is expected to realise only $100, with the remainder being written off as a bad debt.
- » The creditors as at 30 September will all be paid during October. One creditor with a balance of $2100 has agreed to accept $2000 in full payment of the account.
- » Sales during October are expected to be $13 200 cash (plus GST of $1320) and $6800 on credit (plus $680 GST). Of the credit sales, about 10% is expected to be collected during October (including the related GST). The remainder will be received in November.

ISBN 978 1 4202 3058 1

- » The owner of the business has stipulated that inventory levels are to increase 10% during October. The purchases required to achieve this goal during October will all be made on credit and will be paid during November.
- » The management applies a fixed mark-up percentage of 100% to all inventory sold.
- » The prepaid insurance of $720 is the result of a yearly premium of $960 paid on 1 July 2015.
- » The term deposit was taken out on 1 January 2014 and is earning 8% per annum. Interest is payable monthly.
- » Depreciation is charged as follows: on the shop fittings 15% on cost per annum; on the delivery van 25% per annum on the reducing balance method.
- » Monthly expenses usually incurred by the firm are: advertising $400 (plus GST $40), wages $2400 and rent $3600 (plus GST $360).
- » Rent is payable three months in advance on the first of January, April, July and October.
- » The wages are paid as incurred, but only half of the advertising cost is expected to be paid during October.
- » The owner expects to be granted a loan during October to purchase a computer system for the business in November. Although she is still shopping around for a system, she estimates that she will apply for approximately $6000.
- » Proprietor's drawings are usually around $800 per week.

a Prepare a budgeted income statement and a budgeted cash flow statement for the month ending 31 October 2015.

b Prepare a budgeted balance sheet as at 31 October 2015.

c Comment on the future of the business using information from your budgets in **a** and **b**. Outline any areas of concern or positive features from the three budgets.

[Exercise 21.13] Chris Millard is the proprietor of Flash Photography, a retail outlet selling cameras and video equipment. He has supplied the following financial information and has asked for assistance in preparing the firm's budgets.

Flash Photography: balance sheet as at 30 June 2015

Current assets	$	$	$	*Current liabilities*	$	$
Cash at bank		1 700		Creditors control	8 200	
Stock control		28 000		GST clearing	2 200	
Debtors control		8 600		Loan	6 000	16 400
Prepaid rent		6 400	44 700	*Owner's equity*		
				Capital		43 100
Non-current assets						
Shop fittings	15 000					
less accum. dep'n	5 000	10 000				
Office furniture	8 000					
less accum. dep'n	3 200	4 800	14 800			
			59 500			59 500

ISBN 978 1 4202 3058 1

ADDITIONAL INFORMATION:

- Sales for the month of July are estimated to be $16 200 (plus $1620 GST), of which 75% will be for cash. None of the credit sales will be settled until August or September.
- Debtors as at 30 June 2015 are expected to pay as follows: 80% should pay during July and will be allowed a 2% discount, and the other 20% are expected to pay during August.
- The owner of the business maintains a fixed mark-up on goods sold to ensure that gross profit is equal to one-third of sales revenue.
- Management expects inventory to be up to $30 000 by the end of July. Purchases will be made on credit to achieve this goal. All credit purchases made by the business are settled in the following month.
- The proprietor of the firm has arranged for a bank overdraft and has a limit of $10 000 approved by the bank.
- Rent on the shop is payable three months in advance. The last payment was made on 1 June 2015.
- Wages of the shop are usually $650 per week.
- A quarterly electricity bill for the period July–September is due in the last week of September. It is usually about $240 per quarter, plus GST.
- Advertising handbills costing $600, plus GST of $60, will be purchased for cash on 2 July 2015. These handbills should all be used during July.
- Stationery is expected to be purchased for cash during July for $150, plus GST of $15. By the end of July all of this stationery is expected to be used.
- Shop fittings are depreciated at the rate of 20% per annum using the reducing balance method and office furniture 10% per annum using the straight-line method.
- A new computer is expected to be purchased on 31 July 2015 for $4800, plus GST of $480. The total owing will be paid on this date.
- The computer is to be depreciated at the rate of 33.3% per annum, using the reducing balance method.
- The loan is an interest-only loan due for repayment on 31 July 2015. Interest of 10% per annum has been paid on the last day of every month for the last two years. The principal must be paid in full on 31 July 2015.
- The owner plans to withdraw $600 per week in cash.

a Prepare a budgeted cash flow statement for the month ending 31 July 2015.

b Prepare a budgeted income statement for the month ending 31 July 2015.

c Prepare a budgeted balance sheet as at 31 July 2015.

d Comment on the future liquidity position of the firm and its future profitability.

e State three items that appear in the budgeted cash flow statement that do not appear in the firm's budgeted income statement.

f State three items that appear in the budgeted income statement that do not appear in the firm's budgeted cash flow statement.

ISBN 978 1 4202 3058 1

[Exercise 21.14] Graeme Dickenson, the owner of New Age Books, prepares a budgeted cash flow statement on a regular basis. However, he is alarmed that his latest bank statement shows an overdrawn balance when his budget estimated a debit balance of several thousand dollars. The following data have been made available by Dickenson to allow you to make a comparison of budgeted and actual figures for the month of July 2015:

	Budget $	*Actual* $
Operating activities		
Cash sales	24 000	28 000
Collections from debtors	12 000	10 600
GST collected	2 400	2 800
Wages	(10 400)	(12 200)
Advertising	(2 200)	(2 800)
Rent	(4 800)	(4 800)
Payments to creditors	(13 200)	(14 600)
Telephone	(240)	(200)
Office expenses	(200)	(240)
Cartage outwards	(520)	(600)
GST paid	(796)	(1 264)
Investing activities		
Purchase of display equipment	–	(4 000)
Financing activities		
Drawings	(2 400)	(3 600)
Bank balance start of month	440	440

a Using the data provided above, prepare a budget variance report, including variances in dollar amounts and percentages, for New Age Books for July 2015. Your report should be a full statement of cash flows, including the final cash balances.

b Write a report to the proprietor, explaining clearly why the projected cash figure was not achieved. Your report should mention the significant favourable and unfavourable variances from the budget.

c Given the result of July, Dickenson is sceptical about preparing budgets in the future. He suggests that, because of the inaccuracy of the July budget, budgeting for his business is a waste of time. Comment on his reaction.

ISBN 978 1 4202 3058 1

[Exercise 21.15] The following comparison of budgeted cash flows and actual cash flows has been prepared for Broadway Furniture for the quarter ended 31 December 2015:

	Budget $	*Actual* $
Operating activities		
Cash sales	28 000	32 000
Collections from debtors	10 000	12 000
GST received	2 800	3 200
Cash purchases	(1 200)	(800)
Payments to creditors	(18 000)	(22 000)
Wages	(2 700)	(2 500)
Insurance	(600)	(620)
Postage and telephone	(250)	(220)
Electricity	(320)	(340)
GST paid	(587)	(518)
Investing activities		
Purchase of new computer	(3 500)	(3 200)
Financing activities		
Additional capital	4 000	–
Drawings	(6 000)	(5 200)

The business had $840 in the bank on 1 October 2015.

a Prepare a variance report for the quarter ended 31 December 2015 to reveal the significant differences between the budget and the actual results. Your report should also show the difference in the estimated bank balance and the actual bank balance as at 31 December 2015.

b State the main reasons that caused the difference between the budgeted and the actual bank balance. If possible, suggest reasons for these variances occurring.

c Do you think that a quarterly period is appropriate for budgeted cash flow statements? Give reasons for your answer.

ISBN 978 1 4202 3058 1

[Exercise 21.16] The following information relates to the business of Salm's Disposal Store:

Salm's Disposal Store: income statement for month ended 30 November 2015

	Budgeted $	*Actual* $
Revenue		
Cash sales	10 500	8 400
Credit sales	8 000	7 800
	18 500	16 200
less cost of sales	9 000	10 500
Gross profit	9 500	5 700
less other expenses		
Wages—sales staff	2 800	2 900
Advertising	2 600	2 000
Postage and telephone	150	160
Wrappings	360	320
Insurance	430	440
Interest on overdraft	100	140
Depreciation of fittings	800	800
Total operating expenses	7 240	6 760
Net profit	2 260	(1 060)

a Prepare a budget variance report using the budgeted and actual data.

b Write a report to the owner of the business explaining why the predicted profit for November was not achieved.

c What steps should the management of the business now take in light of the actual results reported for the month of November? Outline the role of a variance report in relation to the future budgeting of the firm.

[Exercise 21.17] The management of Toy Kingdom has just completed an income statement for the month of August 2015 and is surprised by the results. The following comparison of budgeted and actual results has been made available.

	Budgeted $	*Actual* $
Sales	22 000	26 000
Cost of sales	11 000	13 000
Wages	4 000	6 000
Office expenses	800	850
Rent	2 400	3 200
Bad debts	500	1 000

a Prepare a budget variance report that shows both the budgeted and actual profit figures. Your report should also identify favourable and unfavourable variances from the set budget.

b Comment on the changes in the following items: sales, cost of sales, wages, rent and bad debts.

c Prepare two pie charts to break down the sales dollar into the various expenses and net profit. One chart should be based on the budgeted data; the other should show the actual results.

d Comment on any significant differences between the two pie charts prespared in **c** above.

CASE STUDY

The owner of **BENALLA MUSIC**, Ella Heidi, needs some assistance in preparing her budgeted reports. She has gone through her past records thoroughly and has prepared a summary of what has happened and what is expected to happen. However, she is unsure how to determine cash receipts from debtors and cash payments to creditors. The following is provided for your information:

From the balance sheet

	Actual 31 July 2015 $	*Predicted 31 August 2015 $*
Balance of stock control	26 000	36 400
Balance of debtors control	2 400	2 800
Balance of creditors control	8 600	9 600
Balance of cash at bank	3 210	?

From the income statement

	Actual July 2015 $	*Predicted August 2015 $*
Cash sales	6 500	6 600
Credit sales	2 750	2 800
Cost of sales	4 500	4 600
Stock loss	800	800
Wages	1 600	1 600
Office expenses	200	200
Discount expense	110	120
Discount revenue	150	160
Bad debts	100	100

a Reconstruct the following general ledger accounts to help Heidi with the preparation of her budgeted cash flow statement: debtors control, stock control and creditors control. (Don't forget to allow for 10% GST on all sales and purchases.)

ISBN 978 1 4202 3058 1

b Using the above information, plus your reconstructions from part **a**, prepare a budgeted cash flow statement for Benalla Music for the month ending 31 August 2015.

c Taking into consideration your budgeted cash flow statement from part **b**, comment on the likely future cash position of this business.

d Prepare a budgeted income statement for the month ending 31 August 2015.

e Write a brief report on the future performance expectations of Benalla Music in relation to the expected profit or loss.

f Comment on the following statement: 'Reliability cannot be satisfied in the process of budgeting and therefore the budgeting process is not all that valuable.'

INTERNET activity

The process of budgeting for a small business involves making predictions and planning the future activities of the entity. Part of this planning may require making financial arrangements with a bank or other financial institution. This internet activity provides you with an opportunity to explore the different types of finance available to small business owners. Although not directly part of the VCE Unit 4 course, it is designed to expand on your knowledge of accounting for a small business and the related financial issues.

Visit some of the following bank websites:

www.commbank.com.au

www.nab.com.au

www.anz.com.au

www.westpac.com.au

Your task is to investigate what types of loans are available to business owners.

Prepare the following summary of your findings:

a the types of finance available

b a brief description of the nature of the finance

c any advantages of the type of finance being suggested (some are provided on the site).

Chapter 22

Analysis and interpretation of accounting reports

OBJECTIVES

At the completion of this chapter, you should be able to:

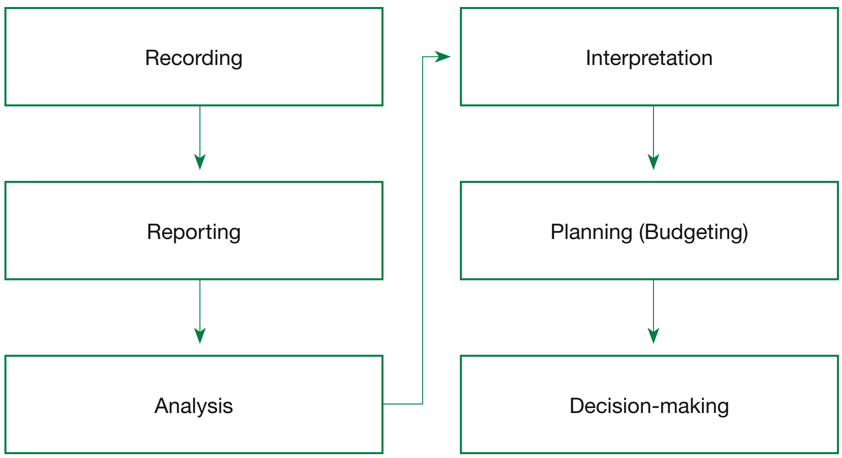
- distinguish between the terms ‘analysis’ and ‘interpretation’
- outline the meaning of vertical and horizontal analysis
- explain the role of financial indicators, including ratios
- state examples of yardsticks, which can be used to measure performance
- prepare a variety of indicators to examine the areas of profitability, operating efficiency, liquidity and gearing
- comment on the results of ratio analysis
- calculate changes in performance in both dollar and percentage terms
- evaluate the performance of a business using data from several reporting periods
- describe some non-financial methods of analysis
- compare the performance of different businesses
- outline the limitations of ratio analysis.

ISBN 978 1 4202 3058 1

22.1 The role of analysis and interpretation

The analysis and interpretation of accounting reports is a vital part of the overall accounting process. As accounting provides financial information for the purpose of management decision-making, it is important that such information is interpreted correctly. If accounting reports are analysed incorrectly, any decisions based on such analysis could have dire consequences for the future of a business. Planning for the future operations of a business usually takes into account the reporting of past results of the firm. Thus it is important that the reporting of information is done in a clear, easily understood fashion that allows management to interpret results and make the right decisions for the future. The role of analysis and interpretation is represented in figure 22.1.

Figure 22.1 The place of analysis and interpretation in the accounting system



Analysis and interpretation should be seen as a tool that can assist management to make better decisions. It provides information in addition to that already available in reports such as the income statement and the balance sheet. Analysis and interpretation should improve the quality of the information available to management. This may be achieved through the use of such tools as year-to-year comparisons, percentages as well as dollar values, ratios, charts and graphs. Such tools are examined with practical examples later in this chapter.

22.2 Distinguishing between analysis and interpretation

Analysis and interpretation should not be viewed as one single process. These two terms involve two distinct operations. **Analysis** is the process of breaking down something complex into simpler, smaller portions. **Interpretation** is the process of then explaining the meaning of the completed analysis. A simple form of analysis is to present the income statement in both dollar terms and percentages. This is known as **vertical analysis** because the accounting report is analysed in a vertical fashion. An example of such analysis is shown in figure 22.2.

The income statement based on dollar values provides limited information. When the same report is analysed (or broken down) into percentages, additional information becomes available. Management can now interpret this report in terms of the percentage of the sales dollar consumed by each of the expenses. The percentage of the sales dollar earned as both gross profit and net profit is also now available. Such information was not readily available in

ISBN 978 1 4202 3058 1

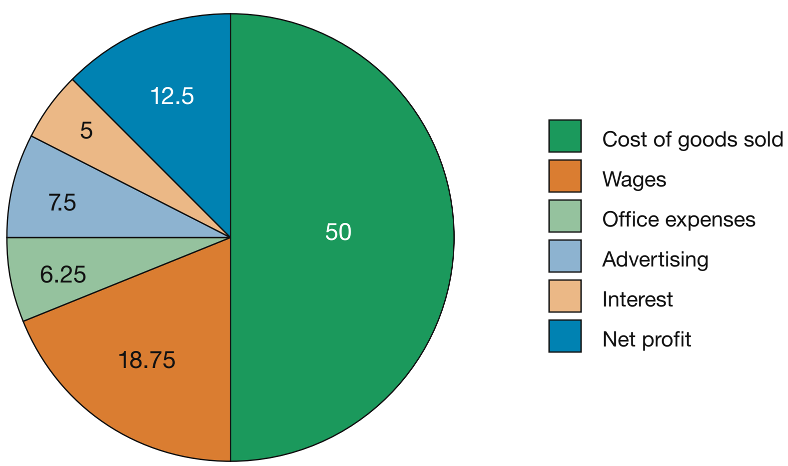
Figure 22.2 Vertical analysis of an income statement

	$	%
Sales	80 000	100.00
less cost of goods sold	40 000	50.00
Gross profit	40 000	50.00
less wages	15 000	18.75
Office expenses	5 000	6.25
Advertising	6 000	7.50
Interest	4 000	5.00
Total expenses	30 000	37.50
Net profit	10 000	12.50

the normal statement. Thus analysis can be used to break down accounting reports into smaller segments ready for interpretation.

The analysis in figure 22.2 shows that on average 50% of the sales dollar earned by this business was consumed by its cost of sales. This is an average only, as the business may vary its mark-up on the different types of goods that it sells. Over the year, half of its sales revenue was eaten away by cost prices, thus leaving 50% of the sales dollar as gross profit. Note that an increase in the firm's mark-up leads to an increase in this **gross profit ratio** (gross profit/sales). Conversely, if cost prices increased and selling prices remained unchanged, the gross profit rate would fall. Having established a gross profit percentage, it can also be seen that wages consumed 18.75% of the sales dollar, 6.25% went in office expenses, advertising used up 7.5% of sales and interest expense consumed 5% of the sales dollar. The end result of all this was that 12.5% of total sales remained as net profit at the end of the period (net profit/sales). This type of data is often represented in pie chart form. Such presentations are an excellent way of demonstrating changes that may occur in businesses from one period to the next. A pie chart for the above income statement is shown in figure 22.3.

Figure 22.3 Pie chart showing breakdown of sales dollar



Vertical analysis allows statements to be presented as percentages for each reporting period. Translating accounting reports from dollars to percentages provides a common base from which

ISBN 978 1 4202 3058 1

comparisons can be more easily made. The term '**common size statements**' is used to denote the comparison of reports based on percentages, rather than actual dollar amounts.

A second form of analysis is that of horizontal comparisons. Continuing with the example of the previous income statement, **horizontal analysis** can be performed as shown in figure 22.4 below.

Figure 22.4 Horizontal analysis of the income statement

	2013		2014		2015	
	$	%	$	%	$	%
Sales	60 000	100.00	80 000	100.00	80 000	100.00
less cost of goods sold	33 000	55.00	45 000	56.25	40 000	50.00
Gross profit	27 000	45.00	35 000	43.75	40 000	50.00
less wages	10 000	16.67	14 000	17.50	15 000	18.75
Office expenses	4 000	6.67	5 000	6.25	5 000	6.25
Advertising	5 000	8.33	6 000	7.50	6 000	7.50
Interest	1 000	1.67	2 000	2.50	4 000	5.00
Total expenses	20 000	33.33	27 000	33.75	30 000	37.50
Net profit	7 000	11.67	8 000	10.00	10 000	12.50

As all three reports express each item as a percentage of sales, they can now be compared in a horizontal fashion (that is, across the page). For example, although net profit has increased from $7 000 to $8 000, and then from $8 000 to $10 000, it has not remained a constant percentage of sales. In 2013 net profit as a percentage of sales was 11.67%. In 2014 this fell to only 10% and then increased to 12.5% in 2015. Vertical analysis can then be used to explain why certain changes have occurred over time. In the case of the net profit percentage falling in 2014, it appears that the fall in the gross profit rate was the cause. Note that the percentage consumed by expenses was virtually constant in the years 2013 and 2014. However, a problem may be developing, as the total consumed by expenses jumped from 33.75% in 2014 to 37.5% in 2015.

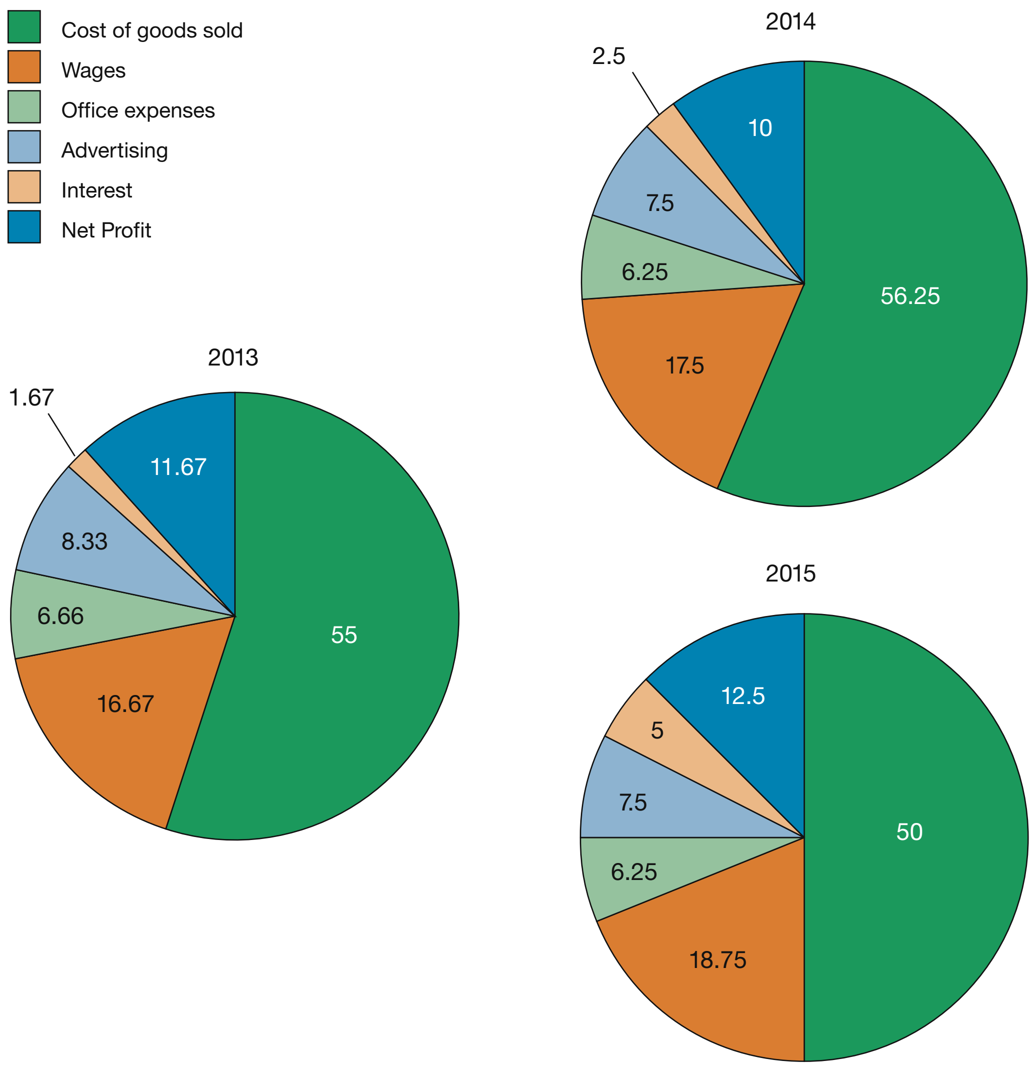
Management can use such analysis to pinpoint problems and then make decisions to rectify the situation. For example, it is noticeable that two expenses (wages and interest) have increased as a percentage of sales each year. These two areas may need to be reviewed and monitored carefully in the future to ensure that they do not adversely affect the firm's future profits. The use of pie charts can also support horizontal analysis, as they allow for easy comparisons over consecutive periods. The above horizontal analysis can be presented as shown in figure 22.5 on page 474.

Pie charts provide an instant overview of major changes within a business. The most obvious change shown in figure 22.5 occurred with cost of goods sold, which has dropped from 56.25% in 2014 to only 50% in 2015. Net profit increased slightly over time. Some users of accounting reports prefer such charts to pages and pages of numerical data, because of their visual impact. As long as accuracy of information is maintained, pie charts can be a valuable tool for accountants.

A combination of vertical and horizontal analysis can be used to examine the performance of a business over several reporting periods. Changes in revenues and expenses over time can be identified and appropriate action taken by management. The use of comparative data over time is essential, as one year's data may not present the full picture.

ISBN 978 1 4202 3058 1

Figure 22.5 Comparative pie charts over consecutive reporting periods



Vertical analysis can provide detailed information about the current reporting period, but when this is compared with previous periods it may be seen in a different light. Consider the following example, which compares the performance of two different businesses:

	2015	
	Business A	*Business B*
	$	*$*
Sales	50 000	50 000
Net profit	10 000	10 000

The above figures simply state that the sales and profit figures for both businesses were the same in 2015. It is evident that both businesses earned a profit that was 20% of sales revenue (10/50 = 0.20). However, vertical analysis is limited, as it only considers the one reporting period. If previous years' figures were also made available, a different opinion of the performance of the two businesses might be formed. A three-year comparison has been provided as follows:

ISBN 978 1 4202 3058 1

	Business A			Business B		
	2013	2014	2015	2013	2014	2015
	$	$	$	$	$	$
Sales	30 000	40 000	50 000	70 000	60 000	50 000
Net profit	3 000	6 000	10 000	25 000	20 000	10 000

When the results of the three years are compared, the performance of Business A in 2015 looks much better than that of Business B. This horizontal analysis can be used to produce data relating to comparisons of one year against another. Using the given data as an example, the following can be noted:

- During 2015 Business A increased sales revenue by 25% (an increase of $10 000 on the $40 000 earned in 2014).
- The profit in 2015 was 66.7% ($4 000/$6 000) above that achieved in 2014.
- In contrast to the results achieved by firm A, firm B experienced a drop in sales of 16.7% ($10 000/$60 000) and a 50% decrease in profit.

Comparisons of one year's data with that of one or more previous years provides management with a trend of the firm's performance. **Trend analysis** involves measuring the change in an item from one year to another. This may be, for example, comparing 2015 with 2014 or 2015 with 2013, or even looking at the trend over the previous five or ten years. Trend analysis will be examined in greater detail in the area of ratio analysis later in this chapter.

22.3 Analytical ratios

When final accounting reports have been prepared, a wide range of financial information is on offer to the users of such reports. However, accountants will often extract different pieces of information and compare them with one another in an attempt to find out more about the business. When this is done an analytical ratio is created. An **analytical ratio** is simply the comparison of two items that have a particular relationship to each other. For example, current assets may be compared with current liabilities in order to measure the **liquidity** of a business. Profit for a period can be compared with the investment made in the business to measure the **profitability** of the firm.

Analytical ratios should be used by management, as they allow the performance of different periods to be compared. This is possible because ratios bring all figures back to a common base. For example, sales in one period may be $123 460 and in the following period they may increase to $125 870. Such odd amounts make comparisons difficult. However, if sales for both periods are made to equal 100%, comparisons are then possible. Expenses can then all be expressed as a percentage of sales revenue. The previous examples of income statements showed how the results of several periods can be compared and trends detected in particular areas within the business. The vertical analysis demonstrated earlier in this chapter (refer to figure 22.2) is based on a collection of analytical ratios. Some examples contained in figure 22.2 are:

- **gross profit ratio**, which is gross profit divided by sales
- **expense ratios**; for example, wages divided by sales
- **net profit ratio**, which is net profit divided by sales.

ISBN 978 1 4202 3058 1

These ratios are only one type of ratio, as they all relate to the income statement. Many other types of ratios are introduced in the notes that follow. Ratios are an important part of analysis and interpretation because they provide the means to compare data from different periods.

22.4 Ratio benchmarks

When ratios are calculated they are usually compared to **benchmarks** of measurement, which are also known as *yardsticks* of performance. These tools of analysis are used to evaluate the success or otherwise of business decision-making. Typical benchmarks include comparisons with:

- **previous reporting periods.** Such comparisons allow a trend in the ratio to be detected.
- **industry averages, or comparisons with other similar businesses.** Although such information is not always publicly available, an accountant may be able to state if a firm's performance is above or below that of similar firms.
- **budget estimates, or predicted results.** Even if ratios indicate an improved performance (compared to previous periods), they may not have achieved the level of performance as defined by management's budgets.
- **alternative investments.** Ratios that are used to examine profitability should be compared against the rates of return available on other forms of investment. There may be little value in investing in a business if a greater return is available in the money market.

Whenever a ratio is calculated, it should be compared with one or more benchmarks to give the ratio some sort of meaning. The benchmarks to be used will vary depending on the ratio under examination. As long as analytical ratios are calculated in a consistent manner they can provide management with detailed information about the performance of the business in a number of areas.

22.5 Types of analytical ratios

From the outset it should be noted that there are literally hundreds of ratios that can be calculated to measure different aspects of the performance of a business entity. This text will cover only the most important of these that relate to the sole trader type of business. Although it is important to appreciate that ratios interrelate with one another, they can be grouped into four main areas, as listed below:

1. **Profitability ratios.** These examine how profitable the firm has been during the period. Profitability may be measured by such means as comparing profit with an investment or by looking at what happened to the sales dollar during a period (refer to figure 22.3).
2. **Operating efficiency ratios.** These look at how efficiently management has used the assets available to them. The investment in stock, debtors, current assets or non-current assets can all be examined in terms of how efficiently they have been utilised.
3. **Liquidity ratios.** These ratios investigate the ability of the business to meet its short-term debts as they fall due. Liquidity ratios are usually based on short-term events and consider items relevant to the next 12 months of a firm's operations.
4. **Stability ratios.** These ratios measure the financial stability of a business and examine the financial risk being undertaken by business owners.

The above four types of analytical ratios are dealt with in detail below, but it should always be kept in mind that one ratio may have a direct impact on another ratio in a different area. For example, a ratio used to look at how efficiently assets have been used may have an impact on

ISBN 978 1 4202 3058 1

one or more profitability ratios. Another example is that liquidity ratios take into consideration the current liabilities of a business. As this area may involve loans and loans may attract interest, this may also have an impact on the profitability of a business. Possible relationships between ratios should be kept in mind as the following analytical ratios are covered in detail.

22.6 Profitability ratios

Before individual profitability ratios are examined, it is important to distinguish between the terms 'profit' and 'profitability'. *Profit* is simply the dollar value determined when expenses incurred are deducted from revenue earned over a given period. *Profitability* is the comparison of a profit figure with a base figure, such as the investment made. Thus, when attempting to measure a firm's profitability, it is necessary to go well beyond simply determining a net profit for a period. Profitability ratios not only examine how profitable a business has been, but also look at the underlying reasons for changes in the profitability of the firm. The most important profitability ratios are examined in detail below:

1 Gross profit ratio

$$\frac{\text{Gross profit}}{\text{Sales}}$$

One of the most important factors that influences the profit of a trading firm is the percentage of the sales dollar earned as gross profit. The relationship between the cost price and the selling price of the goods sold by the firm is crucial to profitability. If cost prices have increased over time and selling prices have remained constant, the gross profit ratio will fall. In contrast to this, if management decided to increase the general mark-up on the stock sold, the gross profit ratio would be increased. To demonstrate the gross profit ratio, the following data have been provided:

	2014	*2015*
	$	*$*
Net sales	80 000	100 000
less cost of goods sold	40 000	55 000
Gross profit	40 000	45 000
Gross profit ratio	$\frac{\$40\,000}{\$80\,000}$	$\frac{\$45\,000}{\$100\,000}$
	= 0.50:1	= 0.45:1
	or 50.0%	or 45.0%

The gross profit ratio for this business has dropped from 50% in 2014 to 45% in 2015. This informs management that, although sales increased by $20 000 over the year, the percentage of the sales dollar maintained as gross profit decreased. This occurred because, on average, cost of goods sold consumed $0.50 out of each dollar in 2014 and this increased to $0.55 cents of each sales dollar in 2015. This may have occurred because:

- cost prices increased, selling prices remained constant; or
- cost prices remained constant, selling prices were decreased; or
- both cost prices and selling prices increased, but cost prices increased at a greater rate.

When evaluating a gross profit ratio, it is important to compare it against benchmarks such as the previous periods' gross profit ratios and the budgeted gross profit rate.

2 Net profit ratio

$$\frac{\text{Net profit}}{\text{Sales}}$$

The **net profit ratio** achieved by a business is the result of the relationship between the firm's total revenues and total expenses. Once the gross profit rate has been calculated, the level of the firm's operating expenses will determine the percentage of the sales dollar that remains as the net profit for the period. Continuing with the previous example from above, data relating to operating expenses are shown below:

	2014 $	*2015* $
Net sales	80 000	100 000
less cost of goods sold	40 000	55 000
Gross profit	40 000	45 000
less wages	10 000	15 000
Office expenses	5 000	5 000
Total expenses	15 000	20 000
Net profit	25 000	25 000
Net profit ratio	$\frac{\$25\,000}{\$80\,000}$	$\frac{\$25\,000}{\$100\,000}$
	= 0.3125:1	= 0.25:1
	or 31.25%	or 25.0%

An obvious question in relation to this business is: why did the firm's profit remain at the level of $25 000 when sales were increased by $20 000? The net profit ratio indicates that in 2014 about 31 cents in the dollar was earned as profit and that this figure has dropped to 25 cents in the dollar in 2015. The return on sales should be compared with the rate achieved in past periods, the budgeted rate and the rate achieved by similar firms.

Although each business is unique in terms of its own revenues and expenses, if similar businesses earn a much higher net profit ratio this can act as a warning signal that something may be wrong with the firm in question. Having determined that this result occurred, the question then becomes: how did it occur? The gross profit ratio dropped by 5% and the effect of this does flow on to affect the net profit ratio. The other possible cause is the change in expenses, and these are examined below:

3 Expense ratios

$$\frac{\text{Expense item}}{\text{Sales}}$$

A percentage rate can also be calculated for each individual expense item. Such **expense ratios** inform management about the percentage of the sales dollar consumed by each expense. In the above example two ratios can be determined, as shown as follows:

ISBN 978 1 4202 3058 1

	2014 $	2015 $
Wages expense ratio	10 000	15 000
	80 000	100 000
	= 0.125:1	= 0.150:1
	or 12.5%	or 15.0%
Office expenses ratio	$5 000	$5 000
	$80 000	$100 000
	= 0.0625:1	= 0.0500:1
	or 6.250%	or 5.00%

These two expense ratios show contrasts in their trends. The wages of the firm consumed 12.5 cents of each sales dollar in 2014 and this increased to 15 cents in 2015. This may be expected to occur because sales did increase by $20 000 over this time. However, the increase in selling expenses occurred at a greater rate than the increase in sales (50% compared with 25%). Thus, in 2015 the firm's profitability was reduced by the large increase in wages expenses.

The office expenses ratio shows a drop from 6.25% to 5% over the two years. In this case the expense in dollar terms did not change. As sales increased in 2015, office expenses as a percentage of sales actually decreased. This may occur, as the expenses incurred in running the office may be constant in their nature. Items such as postage, telephone and stationery may not vary much at all from one year to the next.

Expense ratios should be compared with previous periods' results and the expense budgets set down by management. Unexpected expense items and major changes in expense ratios should always be investigated, as they have a direct impact on the net profit rate earned by the firm.

4 Return on assets

$$\frac{\text{Net profit}}{\text{Average total assets}}$$

The ratios demonstrated so far have examined relationships that exist within the income statement. Another way of measuring the profitability of a business is to compare the net profit for the period with the amount invested in the firm's assets. Rather than using the value of total assets at the beginning of the period or total assets at the end of the period, an average of these two values is normally used. This removes any bias that may exist if total assets change in a significant manner right near the end of the reporting period. By using an average of assets at the beginning and end of the period, the profit can be compared with the average level of investment in the firm's assets. If the data were available, an average based on monthly figures would be even more accurate. It is important, however, that once the method of calculating the rate of return has been decided, it should be consistently applied each reporting period [SAC2: *comparability*, accounting principle of **consistency**]. If this is not done, meaningful comparisons become more difficult, as changes in the ratio may occur simply because of a change in the method of calculation.

ISBN 978 1 4202 3058 1

Using the net profit figures from the previous ratio examples, the following information is available in relation to the calculation of the firm's **return on assets**:

	2013 *$*	*2014* *$*	*2015* *$*
Total assets	120 000	130 000	140 000
Net profit		25 000	25 000

For 2014:

$$\text{Return on assets} = \frac{\$25\,000}{(\$120\,000 + \$130\,000)/2}$$

$$= \frac{\$25\,000}{\$125\,000}$$

$$= 0.20{:}1 \text{ or } 20.0\%$$

For 2015:

$$\text{Return on assets} = \frac{\$25\,000}{(\$130\,000 + \$140\,000)/2}$$

$$= \frac{\$25\,000}{\$135\,000}$$

$$= 0.1852{:}1 \text{ or } 18.52\%$$

The results of the return on assets can be interpreted in two different ways. First, it can be expressed in terms of the profit earned for every dollar invested in the firm's assets. In the above example, in 2014 the business earned 20 cents profit for every dollar invested. In 2015, an unfavourable trend was experienced when the return on assets dropped to only 18.5 cents profit for every dollar invested. The other way of looking at the return on assets is that in 2014 the business earned a return of 20% per annum on its investment (18.5% in 2015). The return on assets is often expressed in these terms, as owners use this as a comparison with alternative investments. This is one of the benchmarks that can be used to evaluate a rate of return. The other usual yardsticks are still valid for this ratio, since the results can be compared with previous years, budget expectations and returns achieved by similar firms.

5 Return on owner's investment

$$\frac{\text{Net profit}}{\text{Average capital}}$$

A percentage return may also be calculated on the actual investment made by the proprietor of the business. An owner will usually be interested in the return being earned on the capital invested in a business. As many small businesses fund some of their assets through liabilities, there may well be a significant difference between total assets and owner's equity. The previous example has been expanded once again to include the following details:

ISBN 978 1 4202 3058 1

	2013	*2014*	*2015*
	$	*$*	*$*
Capital	70 000	80 000	90 000
Total assets	120 000	130 000	140 000
Net profit		25 000	25 000

For 2014:

$$\text{Return on owner's investment} = \frac{\$25\,000}{(\$70\,000 + \$80\,000)/2}$$

$$= \frac{\$25\,000}{\$75\,000}$$

$$= 0.3333{:}1 \text{ or } 33.33\%$$

For 2015:

$$\text{Return on owner's investment} = \frac{\$25\,000}{(\$80\,000 + \$90\,000)/2}$$

$$= \frac{\$25\,000}{\$85\,000}$$

$$= 0.2941{:}1 \text{ or } 29.41\%$$

The **return on owner's investment** has fallen from 33% in 2014 to 29% in 2015. This is viewed as an unfavourable trend, as the owner's capital has earned a lower return on the average level of investment. As was the case with the return on assets, an average of the proprietor's capital is the preferred figure to be used in this ratio. However, capital at the beginning of the year or the end of the year may be used as alternatives. The important thing is to always calculate the ratio using the same method consistently from one year to the next. When evaluating an owner's personal return on investment, the usual benchmarks include comparisons with:

- alternative investments in the money market
- the budgeted, or expected, rate of return
- previous periods' rates of return.

One thing to always keep in mind when evaluating a return on an owner's investment is that the desired return may be based on a personal target. Many owners seek a return much higher than that available in the commercial market as a reward for the hours of work and the financial risk undertaken by them. Another factor to be taken into account is that an owner's return on investment does not always equate to the amount available for drawings. The return earned on alternative investments may be paid in cash each year, but this is not always possible when running a business. Funds may have to be retained to finance the future plans of the firm. For these reasons an owner may desire a much higher return on investment compared with many other types of investments.

ISBN 978 1 4202 3058 1

22.7 Operating efficiency ratios

A trading business purchases assets for the purpose of generating revenue. Money is invested in assets such as fittings, delivery vehicles and inventory to help the firm earn a profit. If a firm uses its assets to their maximum operating efficiency, the result should be maximum profit. The ratios in this section illustrate how efficiently the business has used its various types of assets. However, it should always be remembered that efficiency ratios have a direct impact on the profitability ratios covered earlier, as assets are used to generate revenue, which ultimately determines the level of profit earned for the period.

1 Asset turnover ratio

$$\frac{\text{Sales}}{\text{Average total assets}}$$

This ratio compares sales revenue with the average investment in the firm's total assets. By doing so, management is given information about how well the assets of the firm have been used to generate revenue. Using the data previously supplied, the **asset turnover ratio** would be calculated as follows:

	2013	*2014*	*2015*
	$	*$*	*$*
Sales		80 000	100 000
Total assets	120 000	130 000	140 000

For 2014:

$$\text{Asset turnover ratio} = \frac{\$80\,000}{(\$120\,000 + \$130\,000)/2}$$

$$= \frac{\$80\,000}{\$125\,000}$$

$$= 0.64{:}1 \text{ or } 0.64 \text{ times per annum}$$

For 2015:

$$\text{Asset turnover ratio} = \frac{\$100\,000}{(\$130\,000 + \$140\,000)/2}$$

$$= \frac{\$100\,000}{\$135\,000}$$

$$= 0.74{:}1 \text{ or } 0.74 \text{ times per annum}$$

The trend in the above example is a favourable result, because the dollars invested in the firm's assets have generated a higher rate of sales turnover. The more times the investment in assets is turned into sales, the better it is for the business, as this reflects a more efficient use of the assets available to management. Another way of looking at this ratio is that, for every dollar invested in assets, 64 cents of sales revenue was generated in 2014 and this was increased to 74 cents for every dollar invested in 2015. If the asset turnover rate decreased in a given period of time, it would mean that assets are not being used to generate the same amount of revenue. For example, if assets were idle during the reporting period, this would be reflected in the turnover rate.

ISBN 978 1 4202 3058 1

Asset turnover rates may also be calculated for specific classifications of assets. That is, a turnover rate may be calculated for current assets or non-current assets, in the following way:

1a Current asset turnover rate

$$\frac{\text{Sales}}{\text{Average current assets}}$$

1b Non-current asset turnover rate

$$\frac{\text{Sales}}{\text{Average non-current assets}}$$

The calculation of asset turnover rates on a classification basis may be done to reveal problem areas within the firm. If the overall asset turnover is decreasing each year, management may need further information to locate the problem. It may be found, for example, that non-current assets have maintained the same relationship with sales revenue for several periods. The calculation of a current asset turnover rate, however, may show a steady decrease. This identifies the problem area and management is then in a better position to take corrective action. All turnover rates should be compared with some established benchmarks. The usual ones used include previous periods' figures, budget estimates and, if appropriate, similar firms or industry averages. The last of these benchmarks is not always suitable for these ratios, as the asset structure of businesses can vary immensely. If comparisons with other firms are going to be made, it must first be ensured that such comparisons are valid. Otherwise, internal benchmarks such as last year's results and the budgeted rates should be used as performance criteria.

When analysing the operating efficiency of a business, the asset turnover rate provides a general guide as to how well management has utilised its assets during a reporting period. However, it is general in its nature and takes into account all assets under the control of the entity. More specific detail can be provided about the firm's assets by using several tools of analysis that were introduced in chapter 20. These tools include:

- stock turnover rate
- debtors turnover rate
- debtors age analysis
- cash cycle
- creditors turnover rate.

These items were all covered in detail in chapter 20, so it is not necessary to repeat a detailed explanation. However, it is important to keep them in mind as part of an overall analysis of a firm's performance. Therefore, a brief summary is provided below:

2 Stock turnover rate

$$\frac{\text{Average stock} \times 365}{\text{Cost of goods sold}}$$

This ratio determines the number of days a business takes to turn the average level of stock into sales. Therefore, stock turnover can be used to evaluate performance in managing and controlling inventory. When interpreting stock turnover rates, the following should be considered:

- the type of stock being sold
- previous periods' results (that is, the trend)
- management's expectations or budget objectives.

ISBN 978 1 4202 3058 1

3 Debtors turnover rate

$$\frac{\text{Average debtors} \times 365}{\text{Credit sales}}$$

The debtors turnover rate examines the performance of management in actually collecting its debts from credit customers. It is expressed in days and it is used to assess the average time taken by debtors to settle their accounts. Therefore, the debtors turnover rate can be used to evaluate performance in relation to controlling and managing credit accounts. When interpreting debtors turnover results, the usual benchmarks include:

- the credit terms originally offered to debtors
- debtors age analysis (see below)
- previous periods' results (that is, the trend)
- management's expectations or budget objectives.

4 Debtors age analysis

This tool is an additional method of analysing the performance of management in relation to its debtors. An age analysis can be prepared on a regular basis to provide a breakdown of debtors' accounts in relation to the age of their debts. This is one tool that can provide a business owner with regular feedback on the success or otherwise of their collection procedures. The results can be measured by:

- the credit terms originally offered to debtors
- previous periods' results (that is, the trend)
- management's expectations or budget objectives.

5 Cash cycle

Stock turnover + Debtors turnover

The addition of the two turnover rates provides management with an assessment of the time taken to turn stock into sales, and then sales into cash. For a trading firm, the cash cycle is absolutely crucial. The cycle of buying inventory, selling this inventory and then ultimately collecting cash from its sales is the reason trading businesses exist. It ultimately is the process that determines the success or failure of so many small businesses in Australia. If management cannot complete the cash cycle within a certain time, it is doomed to failure. When evaluating the cash cycle, the following should be considered:

- the performance of the individual turnover rates
- previous periods' results (that is, the trend)
- management's expectations or budget objectives
- creditors turnover rate (discussed next).

6 Creditors turnover rate

$$\frac{\text{Average creditors} \times 365}{\text{Credit purchases}}$$

This ratio is used to evaluate the management of creditors' accounts. It is expressed in days, with the result being the average time taken to settle accounts with suppliers. When evaluating this ratio, it should be compared to the cash cycle of the business. The balancing of the time taken to complete the cash cycle and the time taken to settle creditors' accounts is important in managing cash within a small business. At times management may have to extend the creditors

ISBN 978 1 4202 3058 1

turnover rate simply because of an inability to complete the cash cycle at a fast enough rate. Things to consider when interpreting results of the creditors turnover include:

- cash cycle results
- credit terms offered by suppliers
- previous periods' results (that is, the trend)
- management's expectations or budget objectives.

22.8 Efficiency ratios and profitability

The way management uses a firm's assets has a direct impact on the profitability of the business. Both profitability and efficiency ratios having been covered, an important relationship can now be highlighted. Two key ratios already examined were the net profit ratio and the asset turnover ratio, which are restated below:

$$\text{Asset turnover ratio} = \frac{\text{Sales}}{\text{Average total assets}}$$

$$\text{Net profit ratio} = \frac{\text{Net profit}}{\text{Sales}}$$

The return on assets is a ratio used to measure how efficiently the assets of a business have been used to generate profit. If the two ratios stated above are multiplied together, the result is the return on assets calculation:

$$\text{Return on assets} = \frac{\text{Net profit}}{\text{Total assets}} = \frac{\text{Sales}}{\text{Total assets}} \times \frac{\text{Net profit}}{\text{Sales}}$$

As the sales figure for the period appears in both ratios, when they are multiplied together it is cancelled out and the return on assets calculation remains as net profit divided by total assets. Using the data from the previous examples, the ratios are calculated as follows:

	2014	2015
Net profit ratio	$\frac{\$25\,000}{\$80\,000}$ = 31.25%	$\frac{\$25\,000}{\$100\,000}$ = 25.0%
Asset turnover ratio	$\frac{\$80\,000}{\$125\,000}$ = 0.64 times	$\frac{\$100\,000}{\$135\,000}$ = 0.74 times
Return on assets	$\frac{\$25\,000}{\$125\,000}$ = 20.0%	$\frac{\$25\,000}{\$135\,000}$ = 18.52%

It can be seen that the net profit ratio decreased from 2014 to 2015, while at the same time asset turnover increased. The return on assets showed a slight decrease over the year. This decrease was the result of the changes in the other two ratios, as shown on the next page.

ISBN 978 1 4202 3058 1

	Net profit ratio		Asset turnover		
2014: Return on assets =	31.25%	×	0.64	=	20.0%
2015: Return on assets =	25.00%	×	0.74	=	18.5%

Because the return on assets is actually affected by two other ratios, it can be dissected by management to determine the full picture of events. When the return on assets was calculated, it was stated that a decrease occurred from 2014 to 2015. However, now it is known that asset turnover actually increased during this period. The problem for this particular business was that expenses consumed so much of the sales dollar during 2015 that they eliminated the benefits achieved through the higher asset turnover. In summary, the return on assets actually reports on two aspects of a firm's performance. First, it examines how efficiently the business has used its assets to generate revenue (that is, asset turnover). Secondly, the return is affected by the percentage of the sales revenue consumed by the firm's expenses, which ultimately determines the net profit ratio of the business. The return on assets ratio provides clear evidence that operating efficiency ratios have a direct impact on the profitability of a business. It should be kept in mind that efficiency ratios might also have an impact on other areas of a business. The liquidity of a business is one such area and provides the focus for the next area of analysis.

22.9 Liquidity analysis

Liquidity is the ability of a business to meet its short-term debts as they fall due. Liquidity ratios attempt to measure a firm's ability to meet debts in the short term, which usually refers to the next 12 months in the life of a business. For a trading firm to survive, it must have sufficient liquid funds available to meet certain needs. These needs include meeting payments of expenses, creditors, GST debts, loan repayments and proprietor's drawings. The importance of efficiency ratios such as stock turnover and debtors turnover has already been stressed. If a business is taking longer to turn its stock into sales it puts more pressure on its liquid funds. So too does a slower debtors turnover, as the business has to wait longer to collect its cash. Unfortunately, many expenses incurred in running a business will not wait. Employees have to be paid, as does the rent on the property. It is important that management has information relating to the firm's ability to meet these debts as required. Liquidity ratios can be used to provide some of this information:

1 Working capital ratio
(also known as the current ratio)

$$\frac{\text{Current assets}}{\text{Current liabilities}}$$

Working capital is the excess of current assets (CA) over current liabilities (CL). That is, working capital = CA – CL. The calculation of working capital is based on the theory that, if current assets are greater than current liabilities, a business is likely to meet its debts in the next 12 months. If current liabilities exceed current assets, the firm may be facing a liquidity problem. These comments are based on the definition of the two classifications from the balance sheet. Current assets are those assets expected to be turned into cash within the next 12 months. Current liabilities are those obligations due for repayment within the same time period. It is logical, therefore, to compare one group with the other to evaluate a firm's liquidity.

ISBN 978 1 4202 3058 1

The **working capital ratio** can be used to examine the relationship between current assets and current liabilities in a different fashion. Rather than simply stating working capital as a dollar value, the assets are divided by the liabilities and the result is expressed in a ratio or as a percentage. Consider the following example:

		2014	2015
Current assets		\$30 000	\$28 000
Current liabilities		\$12 000	\$14 000
Working capital (CA – CL)		\$18 000	\$14 000
Working capital ratio	CA	\$30 000	\$28 000
	CL	\$12 000	\$14 000
	=	2.5:1	2.0:1
	or	250%	200%

In the above example the working capital ratio has decreased from 2014 to 2015. This ratio may be expressed as a percentage (as shown above), but it can also be stated in the following terms. At the end of 2014 the firm had \$2.50 of current assets for every \$1.00 of current liabilities. On balance day of 2015, the business had \$2.00 of current assets for every \$1.00 of current liabilities. Both of these results indicate that the firm is unlikely to have any problems in meeting its short-term debts as they fall due, even though the liquidity has fallen in the second year.

There is no ideal percentage for a working capital ratio. If the ratio is less than 1:1, the firm may have a liquidity problem in the forthcoming year. Some owners prefer a ratio closer to 2:1, as it provides a safety margin for any unforeseen problems. The trend in the ratio is also an important consideration. Changes in working capital should be carefully scrutinised, and ideally the ratio should be determined more regularly than once a year. For example, a calculation performed monthly or quarterly provides management with up-to-date information in relation to liquidity and is preferable to a once-yearly determination of working capital. No matter how often working capital ratios are calculated, the working capital requirements will vary from business to business and a preconceived figure should not be set as a hard and fast rule. Some firms trade quite successfully with a low working capital figure, whereas others require a higher percentage. The difference is in the cash cycle of different types of businesses. Consider the following two businesses:

Business A: all purchases are on credit, all sales are made for cash, stock turnover is very fast.

Business B: all purchases are for cash, all sales are on credit, stock turnover is very slow.

Business A could trade successfully with a much lower working capital than that required by Business B. This is possible because Business A buys its stock on credit (perhaps on terms of 30 days) and sells for cash. Depending on how fast its stock turnover rate actually is, the business may be able to sell all of its stock before it has to pay its creditors. If so, Business A does not require a large amount of funds tied up in working capital. On the other hand, Business B would require more working capital to cover the time it takes to sell its goods and collect from debtors. If a business sells on credit, it must ensure that it has sufficient funds to meet operating costs during its extended operating cycle. These two examples of trading firms clearly illustrate how different businesses have different working capital requirements.

ISBN 978 1 4202 3058 1

Another consideration in relation to the working capital ratio is the possibility that the ratio is too high. A ratio of 4:1 or 5:1 may indicate that the percentage of current assets to current liabilities is well in excess of the firm's requirements. This may not appear to be a problem at first. However, it may mean that the business has over-invested in current assets. It is possible that the firm has too much money tied up in cash at bank, inventory or debtors. A business should only keep sufficient cash in a normal trading account to meet the firm's needs. If excess cash is available it should be used to gain the maximum benefit for the firm. Debts may be paid off, non-current assets purchased or the excess cash simply invested. It is also possible that the firm has too much stock. The problems this can cause have already been mentioned in the notes relating to the stock turnover ratio. In basic terms, too much inventory can cost a business money in storage costs, insurance and a greater chance of damage, shoplifting and obsolescence. An excessive balance in debtors can also prove to be expensive. Bad debts, debt collection fees and legal costs all add up to be a costly exercise when credit accounts are not collected over an extended period. The problems of excessive stock and debtors should be highlighted by changes in their respective turnover ratios. As such items are current assets, they also have an effect on the working capital ratio.

In summary, the working capital ratio must be a reflection of a firm's needs. What is a suitable level of working capital for one business may not be appropriate for another. Trends in the ratio should be carefully monitored and significant changes should always be investigated. As debtors and stock are major determinants of the working capital ratio, their individual ratios should be closely examined whenever changes in working capital have been identified.

2 Quick asset ratio

$$\frac{\text{Current assets} - \text{Stock} - \text{Prepaid expenses}}{\text{Current liabilities} - \text{Bank overdraft}}$$

The **quick asset ratio** is also known as the **acid test ratio**. Whereas the working capital ratio looks at the short-term liquidity of a business (the next 12 months), the quick asset ratio looks at the immediate liquidity of the firm. The quick asset ratio has significant differences from the working capital ratio. First, prepaid expenses are removed from the total of current assets. The reason for this is that prepayments cannot usually be turned into cash if a business has an urgent need for liquid funds. The second item to be removed from the total current assets is stock. In the normal course of operations a business cannot liquidate its complete inventory in order to meet debts. Even if this were achieved by reducing selling prices to ridiculous levels, the goods sold would then have to be replaced if the firm was going to continue in business. For these reasons inventory is omitted from the quick asset calculations. Also, when calculating the quick asset ratio, bank overdrafts are not taken into consideration. Although banks usually have the right to call up an overdraft at 24 hours' notice, it is unusual for this to occur if normal trading activities are expected to continue. When these items are removed from the totals of current assets and current liabilities, the quick asset ratio basically becomes a comparison of cash at bank and debtors compared with the amount owing to creditors. Thus it looks at the assets that can be turned into cash urgently (that is, quick assets) and the debts that have to be met in the very near future (that is, urgent debts). In order to make a comparison with the working capital ratio demonstrated earlier, the following details are provided:

ISBN 978 1 4202 3058 1

	2014 $	2015 $
Current assets	30 000	28 000
Stock	17 000	19 000
Prepaid expenses	1 000	1 000
Current liabilities	12 000	14 000
Bank overdraft	Nil	1 000

For 2014:

$$\text{Quick asset ratio} = \frac{\$30\,000 - \$17\,000 - \$1\,000}{\$12\,000 - \$0}$$

$$= \frac{\$12\,000}{\$12\,000}$$

$$= 1{:}1 \text{ or } 100\%$$

For 2015:

$$\text{Quick asset ratio} = \frac{\$28\,000 - \$19\,000 - \$1\,000}{\$14\,000 - \$1\,000}$$

$$= \frac{\$8\,000}{\$13\,000}$$

$$= 0.62{:}1 \text{ or } 62\%$$

The quick asset ratios calculated above show an unfavourable trend over the period 2014 to 2015. On balance day of 2014 the firm had \$1.00 of quick assets to meet every \$1.00 of urgent liabilities. However, in 2015 this relationship has deteriorated to the extent that the business now only has \$0.62 of quick assets for every \$1.00 of urgent debts. This ratio is evidence that the liquidity of the firm has decreased. Although a very fast cash cycle may allow a business to operate with a quick asset ratio as low as this, such a change in the ratio over a 12-month period is a warning to management to keep a close watch on future events. If such a decline were to continue in the next reporting period, the firm may simply run out of cash. As with all analysis ratios, the acid test does not answer all of management's questions, but it can be used to signal possible liquidity problems in the immediate future of a business.

22.10 Liquidity analysis and cash flows

Both the working capital and quick asset ratios provide management with useful information on balance day. However, the data used to determine these two liquidity ratios comes from the balance sheet. Given that the cash flow statement should be prepared at the end of every reporting period, this report should also be considered when evaluating the liquidity of a business. There is a logical connection between the cash flow statement and liquidity. The focus of the entire report is inflows and outflows of cash, thus providing a summary of what has happened to the cash resources of the firm over time. Consider the cash flow statement on the next page, which has been prepared for a small business that sells automotive parts.

ISBN 978 1 4202 3058 1

GP Auto Parts: cash flow statement for year ended 30 June 2015

		$	$
Cash flows from operating activities			
	Receipts from customers	170 680	
less	Payments to suppliers and employees	(142 680)	
	Net cash provided by operating activities		28 000
Cash flows from investing activities			
	Proceeds from sale of display equipment	7 300	
less	Payment for display equipment	(11 300)	
	Payment for furniture	(2 000)	
	Net cash used in investing activities		(6 000)
Cash flows from financing activities			
	Mortgage repayments	(8 000)	
	Drawings by proprietor	(21 000)	
	Net cash used by financing activities		(29 000)
Net increase (decrease) in cash held			(7 000)
Cash held at beginning of year			2 000
Cash held at end of year			(5 000)

The above report may be very valuable when evaluating liquidity. For example, it reveals that this business started the period with $2 000 in its bank account but, by the end of the period, this had decreased to an overdraft of $5 000. This in itself shows a significant deterioration in the cash supplies of this business and perhaps also in the firm's liquidity. However, such information should be read in conjunction with analytical ratios such as those for working capital and quick assets. The shortage of cash revealed may not be of concern to management if there are large debtors' accounts expected to be settled early in July 2015. That is, the cash flow statement may not tell the full story. Ratios should not be relied upon as the sole source of financial information. Neither should accounting reports be seen in this way. It is important, therefore, to gather as much information as possible to get a full picture of a firm's liquidity situation. This may include ratios, reports, vertical analyses, horizontal analyses and trend analyses. Once management has all relevant data at its fingertips, it should be in a better position to interpret the results accurately.

In recent times there has been a greater emphasis made on cash management and liquidity analysis by many in the accounting profession. This is because it became apparent that in some cases profitable businesses had to cease trading because of an inability by management to control cash. If cash is not managed and expenses are not met on time, a business will find it very difficult to survive. Landlords become uncooperative when rent is not paid on time. Telephone companies tend to cut off services if bills are not paid. Employees will certainly not work if their wages are not there at the end of the week! Cash management is crucial to a firm's continued operations and additional ratios were created to look at this area of business. One such ratio is the cash flows ratio, which examines the relationship between the cash flows generated by a business compared to the current liabilities of the firm.

ISBN 978 1 4202 3058 1

3 Cash flows ratio

$$\frac{\text{Net cash flows from operating activities}}{\text{Average current liabilities}}$$

For example, if the average current liabilities of GP Auto Parts were \$2800, the ratio would be calculated as follows:

$$\frac{\text{Cash flows from operating activities}}{\text{Average current liabilities}} = \frac{\$28\,000}{\$2\,800} = 10 \text{ times}$$

This ratio shows that GP Auto Parts generated net operating cash flows equal to 10 times what it owed in current liabilities on balance day. As usual, it must be kept in mind that average figures are subject to distortion. Seasonal factors may mean that the average for creditors is either artificially high or low. The concept behind this ratio is that a business should have sufficient coverage of its current obligations if it is to survive. If the trend in this ratio is falling (for example, from 10 times to 8 times in the subsequent period), this may indicate a worsening liquidity position and management may have to take corrective action. On the other hand, if the ratio increases from 10 times to 15 times, the business is unlikely to experience difficulty in meeting its short-term debts. As a guide, for a business trading on 30-day terms, it is logical to use 12 times as a starting point of acceptable coverage of current liabilities in this ratio. If the statement of cash flows covers a one-year reporting period and the average creditors is a true representation of creditors, one would expect a year's cash flows to cover the creditors owing at the end of a given month about 12 times. Otherwise, the business is simply not producing enough cash over the year to meet the most urgent of its liabilities (this ignores long-term debt for the moment). However, the creditors' figure on balance day may vary immensely, depending on when the report was prepared. Therefore, the more important point to keep in mind is the trend in the ratio over several reporting periods. Valuable benchmarks include:

- previous periods' result (that is, the trend)
- management's expectations or budget objectives.

22.11 Gearing and financial stability

Whereas liquidity ratios examine the short-term future of a business, financial stability looks at the long-term structure of a business entity. A business may be financed using internal funds (owner's equity) or external funds (liabilities). **Gearing** is the dependence of an entity on outside funds compared with those contributed by the proprietor. A business is described as highly geared when a high percentage of its assets are financed by liabilities. A lowly geared business is one which is highly dependent on proprietor's funds and therefore has borrowed very little from external sources. A highly geared business is said to have a higher financial risk. This is because there is a greater pressure on the firm's resources to meet repayments of debts. If the expected cash inflows of the business do not occur, the owner is still faced with the problem of meeting the repayment of liabilities. The ultimate result of this problem may be the financial collapse of the business. A lowly geared business does not have the same pressure, as there is not the same level of repayments constantly draining the working capital of the business. Financial stability ratios are calculated to provide management with information relating to changes in the financial structure (that is, the gearing) of the business. There are a number of financial ratios that may be used to measure changes in gearing. One of these ratios is presented on the next page.

ISBN 978 1 4202 3058 1

Debt ratio

$$\frac{\text{Total liabilities}}{\text{Total assets}}$$

The **debt ratio**, also known as the gearing ratio, determines the percentage of assets actually funded by borrowed funds. Consider the following example:

	2014	*2015*
	$	*$*
Total assets	130 000	140 000
Liabilities	50 000	70 000
Owner's equity	80 000	70 000
Debt ratio	$\frac{50\,000}{130\,000}$	$\frac{70\,000}{140\,000}$
	= 0.38:1	= 0.50:1
	or 38%	or 50%

The above ratios indicate that the gearing of this business has increased over the two-year period. It can be noted that the assets of the business have increased from $130 000 to $140 000. However, the concern is that this increase in assets has meant that the owner has also borrowed more funds from external sources. This means that the debt ratio has jumped from 38% in 2014 to 50% in 2015. This indicates that half of the firm's assets are now financed by external funds. This is said to increase the financial risk of the entity as it will be under greater pressure from its repayments of debts. For example, if this expansion in assets was funded by additional loans, the amount of cash that has to be put aside for loan repayments each month will now be greater. This leads to greater pressure on the liquid resources of the business. In simple terms, the more a business owner borrows, the more financial pressure their business will face.

22.12 Gearing and the rate of return on owner's investment

It is generally accepted that the more a business borrows from outside sources, the greater is the likelihood that it will not survive. The obvious question is why would an owner take on this risk, which ultimately could be total financial collapse. One reason why business owners borrow money to finance their business operations is through necessity. Many small business owners do not have sufficient personal wealth to finance a business without borrowing money from others. A second category includes those who borrow money through personal choice and use these borrowed funds to increase their own personal returns. This is demonstrated in the example below.

The following information relates to two businesses that are of equal size in terms of total assets. The two businesses trade in the same industry and both are owned by sole proprietors. The only difference is that Business A is a highly geared firm, whereas Business B is lowly geared. Due to its heavy borrowing, Business A has a higher interest expense and has therefore earned a profit $10 000 lower than that earned by Business B. The following are the financial details for the two businesses for the year ended 31 December 2015:

ISBN 978 1 4202 3058 1

	Business A $	Business B $
Total assets	100 000	100 000
Liabilities	80 000	10 000
Owner's equity	20 000	90 000
Net profit	15 000	25 000

To further emphasise the differences between the two businesses, their respective debt ratios have been calculated, along with two profitability ratios; namely, the return on assets and the return on the owner's investment, as shown below.

$$\text{Debt ratio} = \frac{\text{Liabilities}}{\text{Total assets}} \qquad \frac{80\,000}{100\,000} \qquad \frac{10\,000}{100\,000}$$
$$= \qquad 80\% \qquad 10\%$$

$$\text{Return on assets} = \frac{\text{Net profit}}{\text{Total assets}} \qquad \frac{15\,000}{100\,000} \qquad \frac{25\,000}{100\,000}$$
$$= \qquad 15\% \qquad 25\%$$

$$\text{Return on owner's investment} = \frac{\text{Net profit}}{\text{Average capital}} \qquad \frac{15\,000}{20\,000} \qquad \frac{25\,000}{90\,000}$$
$$= \qquad 75\% \qquad 28\%$$

The above figures highlight the positive outcome that may be achieved through using borrowed funds to finance the assets of a business. Even though Business A achieved a return on assets of only 15%, the owner's personal return on their investment was 75%. This compares with Business B, which had a higher return on assets (25%), but only generated a return of 28% on owner's investment. Therefore the owner of Business A has used other people's money to generate a higher return on their personal funds invested in the business. The two profitability ratios for Business B are almost the same, due to the large percentage of funds contributed by the owner and the very small amount borrowed from outside sources.

Even though Business A has generated an incredibly high return on the owner's investment, there is much greater financial risk involved. The decision to borrow may appear attractive in the above example, but if sales turnover declined in the next reporting period, the management of Business A may struggle to meet the high level of repayments which would exist. The opportunity to earn high returns on owner's funds also carries with it greater financial risk and the greater likelihood of financial collapse. On the other hand, the financial structure of Business B is an example of a more conservative approach to financing a business entity. The return on owner's investment may be lower in the current year, but this business would have a greater chance of survival in difficult times. The differences in financial structure are often affected by the personal choices of the various business owners. Some small business owners tend to be risk-takers who are prepared to borrow large sums of money to try to boost their own personal returns. The other extreme is the conservative proprietor who only borrows

ISBN 978 1 4202 3058 1

through necessity and prefers a high equity component. Perhaps the ideal situation is a balanced approach between the two extremes. The use of borrowed funds can be used to increase an owner's personal returns. However, liabilities should not be allowed to increase to such an extent that the repayments of such debts puts the business at risk. There is no set percentage of gearing that can be defined as totally secure. However, as gearing increases so too does financial risk, with the ultimate risk for an owner being the loss of everything, including personal assets. This possible sacrifice must also be weighed up against the possible gains that may be achieved through the use of borrowed funds.

22.13 Other analysis tools

Financial ratios may be used by accountants, business owners and those involved in management as a starting point in their analysis and interpretation of reports. However, ratios should never be seen as the only tools for analysing business performance. Chapter 21 outlined how budget expectations can be used as benchmarks to measure performance, but there are many other tools that may be used from time to time. Examples of these other possibilities are introduced below.

1 Customer satisfaction surveys

The customers of a business often prove to be a wonderful source of information about that business. Many will seize the opportunity to tell management exactly what they think of them! Customer feedback forms are often used in a negative way. However, this should not be a concern to management. Negative comments may target some practices or processes of the firm that upset outsiders. They may also refer to the stock that is currently being sold or the staff who deal with customers. Any area that potentially affects sales should be addressed. Some comments made on surveys are obviously unfounded and can simply be ignored. However, if a recurring theme is identified by several customers (particularly if they are important clients), action should be taken. Many small businesses have customer feedback forms readily available (for example, restaurants) and these should be reviewed periodically so that management is in touch with customer needs. Customer satisfaction surveys are an example of non-financial analysis that should be used in conjunction with the financial aspects already covered in this chapter.

It is also possible to calculate a ratio to reflect the degree of customer satisfaction. If a business has accepted returns of goods during a period, it is common practice to report this in the income statement, as shown below:

Revenue	*$*	*$*
Sales	50 000	
– Sales returns	2 500	47 500

In this business the net sales reported for the period totalled $47 000. Of interest to management may be the fact that the business actually sold $50 000 worth of goods, of which goods to the value of $2500 were subsequently returned. A percentage is then calculated, which shows that customers returned 5% of total sales during this period:

ISBN 978 1 4202 3058 1

$$\text{Sales returns ratio} = \frac{\text{Sales returns}}{\text{Total sales}} = \frac{\$2500}{\$50\,000} = 0.05 \text{ or } 5\%$$

This percentage figure can then be used as a reflection of customer satisfaction (or dissatisfaction, depending on the result). If the percentage of goods being returned increases, it would indicate greater dissatisfaction with the stock being sold by the business. This may lead management to change some products or perhaps change some brands and purchase stock from different suppliers. If a problem is identified by an increase in the percentage of goods being returned, management may then decide that it is time for another customer survey. That is, a non-financial tool (a survey) may be used as the result of some financial analysis revealing a particular problem.

2 Quality assurance

Just as customers can be surveyed about the degree of their satisfaction, business owners should consider how satisfied they are with their own suppliers. In a similar fashion to the sales returns percentage outlined earlier, management should calculate the percentage of goods returned to suppliers. The number of returns made by customers could also be analysed in terms of which suppliers are involved. Quite often a retail outlet may accept a sales return, only to then return the product to the supplier because it is faulty or does not perform the task for which it was designed. (Note that if an item is shop-soiled through the fault of the retailer, it should not be returned to the original supplier.) To ensure that customers are satisfied, the business owner must strive to find suppliers who will provide reliable products. Once again, a simple ratio may be used to quantify such information:

$$\text{Purchases returns ratio} = \frac{\text{Purchases returns}}{\text{Total purchases}}$$

3 Quality of management

A range of skills is needed to be a successful small business owner. Many small businesses fail because of a weakness in management skills. It should never be assumed that every individual would make a successful business owner. It also takes talent to run a business. Depending on the background of the business owner, some formal education may also be necessary. Consider the following skills, which would be relevant to most sole traders. A successful business owner should have:

- good communication skills: it is crucial that an owner has the ability to deal with customers, staff, suppliers, bankers and government agencies
- adequate management skills: chapter 20 covered the areas of managing and controlling stock, debtors and creditors
- the ability to adapt to change: business owners who refuse to change any of their management practices may keep making the same mistakes. Proprietors who cannot keep up with current trends may soon disappear from the business scene. A vision for the future is needed
- the ability to develop new products (or to stock new products): successful owners quite often are ahead of market changes because they anticipate what is likely to happen in the future
- flexibility in responding to customers' needs: all customers are different and should be treated on an individual basis
- the ability to recognise one's own weaknesses.

ISBN 978 1 4202 3058 1

Some business owners adopt an 'I know it all' approach and are therefore unable to critically evaluate the performance of management when management is simply themselves. However, not all owners are managers, so an owner may in fact conduct a review of their management team. This should help identify weaknesses and allow problems to be addressed. Staff are usually willing to participate in an appraisal of management performance. In larger businesses, staff may be asked to comment on a range of criteria so that the quality of management can be reviewed and improved. As the decisions of management have a direct impact on the financial performance of a business, such comments should not be ignored. Non-financial factors such as the quality of management should always be considered when an owner is undertaking financial analysis, as answers may then be found to problems that have been identified.

4 Profit compared to hours worked

Many small business owners go into business because they choose not to work for someone else. Running a business and being one's own boss is attractive to many individuals. However, it often also has a major disadvantage: a business owner cannot simply clock off at the end of the day. Many tasks have to be completed by business owners and some of these may have to be done after hours, especially when the day has been a busy one serving customers. Ordering of stock may need to be finalised, stocktaking may have to be completed, the accounting records may have to be done, wages records may have to be completed, GST record keeping may need to be finalised, emails or letters may need to be sent to slow-paying debtors, and cheques may have to be written. As a result of these demands, many business owners work 60 to 80 hours per week. Some may question whether it is worth it. That is a difficult question to answer, as making money is not the only reason why people go into business—although it is usually the main one! Feeling independent, achieving a lifetime dream, and making something out of nothing are all given as reasons for going into business. An interesting consideration for some business owners is the following calculation:

$$\text{Profit per hour} = \frac{\text{Net profit}}{\text{Hours worked}}$$

Imagine that a person resigned as an employee because their salary was only \$52 000 (working a 40-hour week) and there was an opportunity to earn \$78 000 working 75 hours per week as a small business owner. The two situations can be compared as follows:

Salary earner: \$52 000 / 52 weeks = \$1000 per week
Business owner: \$78 000 / 52 weeks = \$1500 per week

$$\text{Salary earner} \quad \frac{\text{Income per week}}{\text{Hours worked per week}} \quad \frac{\$1\,000}{40} = \$25 \text{ per hour}$$

$$\text{Business owner} \quad \frac{\text{Income per week}}{\text{Hours worked per week}} \quad \frac{\$1\,500}{75} = \$20 \text{ per hour}$$

ISBN 978 1 4202 3058 1

There is no simple answer to such comparisons. Many business owners are quite happy to work extra hours because of the potential benefits. It is often a matter of personal choice and whether an individual is self-motivated, organised and prepared to work hard in trying to establish a successful business venture. Others are contented to work as employees for someone else. Other factors to consider in this comparison include:

- potential for growth in the business
- potential for salary increases
- risk of financial collapse in running a business
- risk of unemployment if an employer goes out of business
- excitement of running a business
- security of employment as a salary earner
- risk of having insufficient cash to pay drawings (profit is not synonymous with cash)
- security in having a salary deposited into a bank account every week, fortnight or month.

The Australian economy needs people to take on the role of small business owners. It also needs individuals to fill the many wage and salary positions advertised by businesses. The decision to go into business will often be a personal one that requires particular personality traits. Accounting can play a small role in providing some useful tools to assess the performance of business owners. Some of these tools may help individuals decide whether or not it is worthwhile to remain a business owner.

5 Economic climate

The general state of the economy should be kept in mind when analysing the performance of a business. The economic climate may cover a whole range of possible events and factors, some of which may impact on one business more than others. These include:

- consumer confidence
- market competition
- the actions of big business
- government decision-making (for example, the introduction of new taxes)
- wage demands by unions
- taxation increases and decreases
- government elections
- technological change
- market trends.

One of the biggest challenges to management is staying flexible. Business owners who become set in their ways and refuse to change regardless of circumstances will usually not survive in the long term. When analysing results, it can be difficult to explain why things changed. It is easy to calculate a ratio and identify an increase or a decrease; finding out why is much harder. Even if an owner knows why something happened, there is always the challenge of deciding what to do next. What decisions should be taken for the future of the business? This is the basic challenge of being a business owner. A successful business owner has a working knowledge of the economic climate and how changes in this climate affect their business.

ISBN 978 1 4202 3058 1

22.14 Limitations of ratio analysis

Although analytical ratios can provide management with a vast array of financial information, it is important to realise that there are inherent limitations in such analysis. Ratios can only be as accurate as the information on which they are based. The use of ratios may be questionable, or of limited value, for the following reasons:

1. *The fact that ratios are based on historical data*. Ratio analysis may provide a historical summary of a firm's operations, but there is no guarantee that the past results will correspond to the future results of the business.
2. *Historical cost accounting*. As accounting is based on the system of historical cost, some changes in ratios may be questionable. For example, in times of inflation sales revenue may increase over time even though the same number of units has been sold. The sales turnover ratio compares sales with total assets. The value of assets may not have changed and, in fact, may have decreased due to depreciation. Under these circumstances the sales turnover would show an increase, which has occurred only because of the combined factors of inflation and depreciation. This type of change should be taken into account when comparing ratios but is often difficult to identify.
3. *Changes in accounting methods*. Sometimes management may decide to change accounting methods in one or more areas. The concept of relevance [SAC2] demands that the impact of any such changes be identified as part of the annual reporting process and should be disclosed to the users of the report. However, once changes have been made, comparisons of ratios become more difficult.
4. *Inter-firm comparisons*. Many ratios lend themselves to comparisons with the performance of other similar firms. However, it must be remembered that every business is unique in terms of financial structure, assets, revenues and expenses, and so comparisons with other businesses must be made with great caution. Industry averages are often suggested as a means of comparison, but the business in question may simply not resemble the typical average business. In such a case comparisons are suspect at best.
5. *Frequency of reporting*. Some forms of ratio analysis are most advantageous when frequent reporting allows regular comparisons of results to be made. Unfortunately, many small trading firms complete a minimal amount of reporting each reporting period.
6. *Limited information*. Most proprietors have a limited accounting background (if any) and many do not utilise a comprehensive reporting system. Therefore limited information leads to limited analysis.

› GLOSSARY OF TERMS

analysis the process of breaking down something complex into simpler, smaller portions.

asset turnover ratio sales/average assets; used to measure how well assets have been used to generate sales.

benchmarks tools used to measure performance by comparing financial results against some established criteria.

common size statements reports that use percentages rather than dollar values, to allow easier comparison of results.

debt ratio liabilities/total assets; used to measure the dependence of a business on liabilities to fund its assets

expense ratio expense/sales; may also be used for total expenses (total expenses/sales)

gearing the dependence of a business on borrowed funds, compared to funds contributed by the business owner.

gross profit ratio gross profit/sales; shows the percentage of the sales dollar remaining after cost of goods sold has been taken into account.

ISBN 978 1 4202 3058 1

horizontal analysis analysis carried out by making a comparison of financial results across the page, usually by reporting on several consecutive trading periods.

interpretation the process of explaining the meaning of a financial item or analytical ratio.

liquidity the ability of a business to meet its short-term debts as they fall due.

net profit ratio net profit/sales; used to determine the percentage of the sales dollar that remains after all expenses have been taken into account.

profitability a comparison of profit with a base figure, such as assets employed, capital invested or sales made.

quick asset ratio (or **acid test ratio**) current assets less stock and prepayments/current liabilities less overdraft; used to measure immediate liquidity.

ratio a comparison of two items that are somehow related in order to analyse an aspect of business performance.

return on assets net profit/average assets; used to measure how well management has used its investment in assets to earn profit.

return on owner's investment net profit/average owner's equity; used to measure the return earned on the investment of funds by the proprietor of a business.

trend analysis measuring the change in a financial item or a ratio over several reporting periods.

vertical analysis the breaking down of an accounting report into percentages in a vertical fashion down the page.

working capital current assets – current liabilities; used to measure the liquidity of a business, expressed in dollars.

working capital ratio current assets/current liabilities; used to measure the liquidity of a business. Can be expressed as a ratio or percentage.

Summary questions

1. Outline the role of analysis and interpretation in the overall accounting system.
2. Distinguish between analysis and interpretation.
3. Explain why percentages are often used in the process of analysis and interpretation.
4. Describe the differences between vertical and horizontal analysis.
5. Explain why data from several reporting periods is preferred to a single set of results when evaluating the performance of a business.
6. Why do accountants prepare analytical ratios when a wide range of information is already available in final accounting reports?
7. Explain the purpose of benchmarks in ratio analysis.
8. State three benchmarks that can be used to evaluate the profit figure of a business.
9. A business may earn a substantial profit but have poor profitability. Explain how this is possible.
10. Business A earned a profit of $20 000, while Business B had a profit of $30 000. Explain how it is possible that firm A has a higher profitability.
11. The gross profit ratio of a business was 50% in 2014 and 55% in 2015. Explain how this increase may have been achieved.
12. How is the net profit ratio calculated? What does this ratio indicate?
13. The owner of New Fashions is confused. The gross profit ratio of the firm has decreased from 65% to 60%, but the net profit ratio has increased from 8% to 9%. Explain how this is possible.

ISBN 978 1 4202 3058 1

14 What does the return on assets evaluate?

15 Explain why average assets is preferable to assets at the end of a period when calculating the return on assets ratio.

16 What is the purpose of calculating a return on owner's investment if the return on assets has already been determined?

17 A business proprietor earned a return on investment of 14%. Describe three factors that should be considered when evaluating this return.

18 What does an asset turnover ratio tell a business owner?

19 What is liquidity? Explain why liquidity analysis is important to management.

20 Outline the link between the cash cycle and the liquidity of a business.

21 Describe the role an age analysis of debtors can play in analysis and interpretation.

22 Explain the difference between the working capital ratio and the quick asset ratio in terms of what they evaluate.

23 'If management determines liquidity ratios on a constant basis, a cash budget is no longer necessary.' Do you agree? Explain fully.

24 Explain how a statement of cash flows can assist management when evaluating the liquidity position of a business.

25 'If cash flows from operating activities have increased over time, a business will have an improved liquidity.' Do you agree? Explain fully.

26 What is the debt ratio? What is it used to measure?

27 State two reasons why business owners may borrow money to help finance the purchase of business assets.

28 Explain the link between gearing and financial risk.

29 Explain how gearing may be used to increase the return on owner's investment.

30 What use can be made of customer surveys when evaluating business performance?

31 State one analytical ratio that may be used to measure customer satisfaction. Explain how this ratio can be used to reflect the satisfaction or otherwise of a firm's customers.

32 A business owner should try to provide customers with quality merchandise. State two methods of measuring the performance of a business in relation to the quality of goods being purchased from suppliers.

33 External factors may sometimes affect the performance of a business. State, and explain, three examples of such factors and how they may affect business performance.

34 State, and describe, three reasons why ratio analysis may have limited value for some businesses.

ISBN 978 1 4202 3058 1

Practical exercises

[Exercise 22.1] The following information relates to the business of Gerry's Computers, a small business owned and managed by Gerard Nolan:

	2014	*2015*
	$	*$*
Sales	120 000	150 000
Cost of goods sold	66 000	89 100

a Calculate the gross profit ratio for 2014 and 2015.

b Determine the percentage increase in both sales and cost of goods sold from 2014 to 2015.

c Referring to your answers in **a** and **b** above, explain to Nolan what has happened in his business over the last two years.

[Exercise 22.2] The owner of Bev's Boutique has supplied the following financial information:

	2014	*2015*
	$	*$*
Sales	136 000	149 600
Cost of goods sold	61 200	71 800
Wages	20 400	22 440
Office expenses	6 800	11 970

a Prepare income statements for the two years in both dollar and percentage terms.

b Write a brief comment explaining the change in the gross profit ratio from 2014 to 2015.

c Prepare a pie chart for each of the two years, showing the breakdown of the sales dollar into expenses and net profit.

d Explain what has happened to the net profit ratio of the firm over the two years. Use data from your other answers to help explain the changes in the profitability of the business.

[Exercise 22.3] John Ahmar is the proprietor of Superior Sports and has provided the following information relating to his business:

	2014	*2015*
	$	*$*
Sales	192 000	215 040
Cost of goods sold	92 160	97 690
Wages	24 000	26 400
Advertising	3 840	4 200

a Prepare income statements for the two years in both dollar and percentage terms.

b Prepare a pie chart for each of the two periods to show the breakdown of the sales dollar.

c Write a report explaining the changes that have occurred in the business of Superior Sports from 2014 to 2015.

[Exercise 22.4] The financial information provided below relates to the business of Commercial Telephones, owned and managed by Sue Dodd:

	2013	*2014*	*2015*
	$	*$*	*$*
Sales	160 000	165 000	185 000
Net profit	25 600	26 400	32 000
Total assets	90 000	100 000	100 000
Owner's equity	60 000	65 000	65 000

a Calculate the following analytical ratios for the years 2014 and 2015:
- i net profit ratio
- ii return on assets
- iii return on owner's investment.

b Write a brief comment to Dodd on the performance of the firm as revealed by each of the ratios calculated in **a**.

c State and describe three different benchmarks that may be used to evaluate the owner's return on her investment.

d Compare the results of the return on assets and the return on owner's investment for 2014 and 2015. Explain how this is possible.

ISBN 978 1 4202 3058 1

[Exercise 22.5] Brodie Anderson earned a profit of $46 200 in his small business after investing $99 000 capital. Robert Esposito made an investment of $72 000 into his firm and earned a profit of $35 400.

a Calculate the return on owner's investment for each of the two owners.

b Which owner has the higher profitability? Explain your answer.

c If both businesses had assets of $120 000, calculate the return on assets for each firm.

d Which firm has used its assets most effectively in terms of earning profit? Justify your answer.

[Exercise 22.6] The following information relates to two similar businesses:

	Doug's Hardware	*Michelle's Hardware*
	$	*$*
Total assets 30/6/14	86 600	78 400
Total assets 30/6/15	83 400	85 600
Sales for the year	382 500	348 500
Net profit	45 900	48 790

a Using the above information, calculate the following ratios for each of the two firms:
i the asset turnover ratio
ii the return on assets
iii the net profit ratio.

b Which business has used its assets most effectively to earn its sales revenue? Explain your answer fully.

c Compare the results of the three ratios for the two firms. Comment on the differences between the two sets of results.

[Exercise 22.7] Consider the results of the two businesses presented below:

	Deluxe Furniture	*Elegant Furniture*
	$	*$*
Total assets (31/12/14)	120 000	96 000
Total assets (31/12/15)	124 000	108 000
Sales for the year	457 500	326 400
Net profit	51 240	39 160

a Calculate the return on assets, the net profit ratio and the asset turnover ratio for each of the two firms.

b Write a brief comment on the results revealed by each of the three ratios.

c 'If a business increases its assets turnover ratio, its net profit ratio must also increase.' Do you agree? Explain your answer fully.

ISBN 978 1 4202 3058 1

[Exercise 22.8] Consider the following balance sheet information, which relates to two different businesses as at 30 June 2015:

	Eddie's Electricals	*Edwina's Electricals*
	$	*$*
Current assets	41 500	47 700
Current liabilities	35 800	42 600

a Calculate the working capital for both firms as at 30 June 2015.

b Determine the working capital ratio for both firms.

c Which firm has the better liquidity? Compare the liquidity of the two businesses and comment on the differences between them.

[Exercise 22.9] The following information was provided by the proprietor of Martello's Menswear:

Balance sheet data as at:

	31/12/14	*31/12/15*
	$	*$*
Cash at bank	3 400	Nil
Debtors control	5 200	4 800
Stock control	34 500	32 600
Bank overdraft	Nil	1 200
Creditors control	5 800	6 000
GST clearing	1 000	1 500
Accrued expenses	500	1 000

a Calculate the working capital ratio for Martello's Menswear for 2014 and 2015.

b Comment on the firm's liquidity with reference to the ratios determined in **a** above.

c What other information would you recommend be made available to enable further comment on the liquidity of the business?

[Exercise 22.10] Consider the following information, which relates to two different businesses as at 30 June 2015:

	Tim's Tool Shop	*Tom's Tool Shop*
	$	*$*
Cash at bank	4 500	2 900
Debtors control	8 300	11 800
Stock control	32 400	38 200
Creditors control	10 400	13 800
GST clearing	1 200	1 100

ISBN 978 1 4202 3058 1

a For each of the two businesses, calculate

i a working capital ratio

ii a quick asset ratio.

b Comment on the differences in the liquidity structure of the two firms, including references to the ratios calculated in **a**.

[Exercise 22.11] The following items were extracted from the balance sheets of Nicoletti's Furniture Store:

	31/12/14	*31/12/15*
	$	*$*
Cash at bank	3 900	4 400
Debtors control	11 200	15 500
Stock control	43 900	42 400
Prepaid expenses	1 500	2 000
Bank overdraft	2 800	Nil
Creditors control	15 000	16 800
GST clearing	1 400	1 700
Accrued expenses	1 500	1 000

a Calculate a working capital ratio for both 2014 and 2015.

b Comment on the change in the working capital ratio over the two years.

c Calculate the quick asset ratio for 2014 and 2015, and comment on the change in the ratio.

d Working capital and quick asset ratios both look at liquidity. Explain the difference between these two forms of ratio analysis.

e Outline the role cash budgeting plays in evaluating a firm's liquidity.

[Exercise 22.12] In relation to the business of Waverley Trading, its owner reports that cash provided by operating activities in the year ended 30 June 2015 was $82 400. Current liabilities as at that date totalled $10 300. For the previous year, cash flows from operations were $71 900 with current liabilities of $11 300.

a Calculate the ratio of cash flows from operations to current liabilities for each of the two years.

b Has the liquidity of the firm improved or deteriorated over the last two years? Explain fully.

c What other information would assist you in commenting on this firm's liquidity?

[Exercise 22.13] The management of Emerald Jewellers has just completed final accounting reports for the year ended 30 September 2015. The following information has been extracted from these reports:

From the statement of cash flows:	
Net cash provided by operating activities	$32 000
Net decrease in bank for the year	$4 500
From the profit and loss statement:	
Gross profit	$43 000
Net profit	$5 000
From the balance sheet:	
Cash at bank balance	$3 200
Current liabilities	$8 400
Drawings for the year (all cash)	$16 000

a State two possible reasons why cash at bank decreased over the period despite $32 000 being provided by operating activities.

b Explain why this business has reported such a small profit when it has such a healthy gross profit.

c State two reasons why net cash flow from operations was $32 000 but net profit was only $5 000.

d Calculate the net cash flows to current liabilities ratio as at 30 September 2015.

e The net cash flows to current liabilities as at 30 September 2014 was calculated as 6.5 times. Make a brief comment on the current situation, taking into account last year's result.

[Exercise 22.14] Western Trading has total assets of $220 000 and owner's equity of $140 000. Northern Trading has owner's equity of $82 000 and total assets of $120 000.

a Calculate the debt ratio for each business.

b Which of the two businesses has the higher gearing? Explain your answer fully.

c Explain the link between gearing and financial risk.

[Exercise 22.15] The following information was extracted from the books of two similar businesses:

	Gina's Gifts	*Gary's Gifts*
Liabilities	$32 600	$46 800
Owner's equity	64 400	56 200
Net profit	25 000	25 000

a Calculate the following ratios for each of the two businesses:
- i debt ratio
- ii return on assets
- iii return on owner's investment.

ISBN 978 1 4202 3058 1

b Comment on the different financial structure of the two businesses.

c Compare the two profitability ratios for the two businesses and explain the differences between them.

d State one advantage and one disadvantage of being the owner of a highly geared business.

[Exercise 22.16] The following information has been provided by the proprietors of two similar-sized businesses:

	Superior Electricals	*Supreme Electricals*
	$	*$*
Liabilities	70 000	50 000
Owner's equity	80 000	100 000
Net profit	22 000	26 000
Net cash from operating activities	28 000	32 000

a Calculate the following ratios for both businesses:
i debt
ii return on assets
iii return on owner's investment.

b Write a brief comment comparing the gearing of the two businesses.

c Comment on the profitability of the two businesses.

d Of the two firms, which one has the greater capacity to borrow? Explain your answer fully and refer to any relevant ratios.

[Exercise 22.17] The owner of Frankston Fashions has extracted the following information from the last three income statements. She is quite pleased about the trend in the results because total sales have been increasing every year, as have net sales. However, she is a little concerned about the number of returns she experienced.

	2013	*2014*	*2015*
	$	*$*	*$*
Revenue			
Sales	86 900	92 400	98 600
less sales returns	3 476	5 544	6 902
Net sales	83 424	86 856	91 698

a Calculate the sales returns ratio for each of the three reporting periods.

b Comment on your results from part **a**, in light of the owner's concerns.

ISBN 978 1 4202 3058 1

[Exercise 22.18] Michael Hill is the owner of Peninsula Pottery, a small business that buys and sells a range of pottery products for the home and garden. He has always placed an emphasis on quality inventory, but is a little concerned about customer dissatisfaction of late. He has provided you with the following details:

	2014	*2015*
	$	*$*
Total sales	86 000	84 200
Sales returns	1 720	2 100
Total purchases	42 300	42 600
Goods returned to suppliers	1 270	1 700

a Calculate the sales returns ratio and the purchases returns ratio for 2014 and 2015.

b Comment on the results in part **a** above. Does this business owner have a problem?

c Suggest a possible solution to the situation that you have identified in this business.

[Exercise 22.19] The following information relates to Barnes Trading and covers three consecutive reporting periods:

Income statements for years ended 31 December:

	2013	*2014*	*2015*
	$	*$*	*$*
Credit sales	92 000	98 000	94 000
less cost of sales	55 200	53 900	54 050
Gross profit	36 800	44 100	39 950
less wages	22 000	25 000	26 000
Office expenses	7 500	7 000	7 500
Interest	2 500	2 000	1 500
Total expenses	32 000	34 000	35 000
Net profit	4 800	10 100	4 950

From the cash flow statement: net cash provided by operating activities: 2013 $28 000; 2014 $20 000; 2015 $16 000.

ISBN 978 1 4202 3058 1

Balance sheets as at 31 December:

	2013	2014	2015
	$	$	$
Cash at bank	3 000	4 000	2 000
Debtors control	5 000	8 000	8 000
Stock control	14 000	14 000	16 000
Fittings (book value)	15 000	12 000	9 000
Premises	120 000	120 000	120 000
Total assets	157 000	158 000	155 000
Creditors	6 000	3 000	7 500
GST clearing	2 000	3 000	2 500
Loan from National Australia Bank	32 000	28 000	26 000
Capital—Barnes	117 000	124 000	119 000
Total equities	157 000	158 000	155 000

* The owner of the business has stated that the 2012 figures were virtually identical to the 2013 results.

a Calculate the following ratios for each of the three years:

- gross profit ratio
- net profit ratio
- expense ratios
- return on owner's investment
- return on assets
- asset turnover
- stock turnover
- debtors turnover
- creditors turnover
- cash flows ratio
- working capital ratio
- quick asset ratio
- debt.

b Write a report on the trends revealed in the ratios calculated above. Your report should be made up of separate sections that consider the profitability, efficiency, liquidity and stability of the business.

ISBN 978 1 4202 3058 1

CASE STUDY

DENNISON'S DEPARTMENT STORE sells a range of furniture and electrical goods. The following accounting reports have been provided for the most recent reporting periods:

Dennison's Department Store: income statements for years ended 31 December:

		2014	2015
		$	$
Revenue			
	Credit sales	190 000	188 000
	Cash sales	66 000	70 000
		256 000	258 000
less	Sales returns	6 000	2 000
	Net sales	250 000	256 000
less	Cost of sales	122 000	132 000
	Gross profit	128 000	124 000
less	Expenses		
	Shop wages	22 000	26 000
	Advertising	4 000	6 000
	Depreciation of shop fittings	2 000	2 000
	Depreciation of vehicle	6 000	6 000
	Rent	48 000	48 000
	Vehicle expenses	2 000	3 000
	Interest	5 000	6 000
	Total expenses	89 000	97 000
	Net profit	39 000	27 000

Dennison's Department Store: balance sheets as at 31 December:

	2013	2014	2015
	$	$	$
Cash at bank	1 500	4 400	18 500
Debtors control	9 600	10 600	12 000
Stock control	35 000	34 000	40 000
Computer	–	–	3 000
Shop fittings*	14 000	12 000	10 000
Delivery vehicle*	32 000	26 000	20 000
Premises	210 000	210 000	210 000
	302 100	297 000	296 500
Creditors	14 000	15 000	16 500
Loan (interest-only due 2015)	60 000	60 000	60 000
	74 000	75 000	76 500
Capital (R. Dennison)	228 100	228 100	222 000
plus net profit	42 000	39 000	27 000
	270 100	267 100	249 000
less drawings	42 000	45 100	29 000
	228 100	222 000	220 000
	302 100	297 000	296 500

* Non-current assets have been reported at carrying value (that is, historical cost less accumulated depreciation)

ISBN 978 1 4202 3058 1

Dennison's Department Store: cash flow statements for years ended 31 December:

		2014		*2015*
	$	*$*	*$*	*$*
Cash flows from operating activities				
Cash received from customers	249 000		254 600	
Cash paid to employees and suppliers	(201 000)		(225 500)	
Net cash provided by operating activities		48 000		29 100
Cash flows from investing activities				
Purchase of computer	–		(3 000)	
Net cash used by investing activities	–			(3 000)
Cash flows from financing activities				
Proprietor's withdrawals	(45 100)		(29 000)	
Net cash used in financing activities		(45 100)		(29 000)
Net increase/decrease in cash held		2 900		(2 900)
Cash held at beginning of year		1 500		4 400
Cash held at end of year		4 400		1 500

The management of Dennison's Department Store has stated the following as their business objectives for the 2014 and 2015 reporting periods:

1. To increase sales by 10% above the previous year's result.
2. To increase net profit by 5% above the previous year's result.
3. To maintain a gross profit ratio of at least 45%.
4. To maintain a return on sales of at least 15%.
5. To achieve a return on owner's investment of at least 20%.
6. To achieve a stock turnover rate of at least four times per annum.
7. To maintain an average settlement period of less than 30 days for debtors.
8. To maintain an average settlement period of between 30–45 days with the firm's creditors.
9. To keep the working capital ratio above 175%.
10. To keep the quick asset ratio above 100%.
11. To maintain a cash flow ratio of at least four times.
12. To keep the debt ratio under 25%.

a For each of the above objectives, state whether or not they were achieved in both 2014 and 2015.

b Where appropriate, suggest possible reasons for objectives not being achieved. The appropriate ratios should be calculated in each case and the trend in the ratios clearly identified.

ISBN 978 1 4202 3058 1

INTERNET activity

Visit at least three of the following websites, which relate to public companies in the retailing sector. Your task will be to locate the firms' balance sheets and extract the information detailed below.

JB Hi-Fi Ltd	**www.jbhifi.com.au**
David Jones Ltd	**www.davidjones.com.au**
Harvey Norman Ltd	**www.harveynorman.com.au**
Rebel Sport Ltd	**www.rebelsport.com.au**
Woolworths Ltd	**www.woolworths.com.au**

a State the name of the company.

b State the dollar amounts for the following items for both the current reporting period and the previous period (all company reports must report for two periods):

- sales (may be listed as sales turnover or simply turnover)
- net profit (use operating profit before tax)
- net cash provided by operating activities
- current assets
- current liabilities
- owners' equity (look for shareholders' equity).

c Calculate the following analytical ratios for both the current reporting period and the previous period:

- net profit ratio (net profit/sales)
- return on owner's equity (net profit/owner's equity)
- working capital (current assets/current liabilities)
- cash flows ratio (net cash flows from operations/current liabilities)
- debt ratio (total liabilities/total assets).

d Compare the results of the various companies selected and comment on your findings. Your comments should address the areas of profitability, liquidity and gearing.

ISBN 978 1 4202 3058 1

Unit 4 Practice exam

QUESTION 1 Bruno Montesano, the owner of Monty's Menswear, has provided the following details of transactions that have occurred in recent days.

14 Sep One of the firm's credit customers, Mirage Hotels, returned several shirts purchased three days earlier. Credit note no. 126 was issued for $120, plus GST of $12. Shirts sold by Monty's Menswear have a 100% mark-up applied to them.

22 Sep A suit purchased from Classic Clothes at a cost of $230, plus GST of $23, was found to be damaged. The supplier could not replace it and instead issued a credit note to Monty's Menswear (CN no. 23). The suit was to be sold for $390.

1.1 Prepare general journal entries to record the relevant information from the two items listed above (narrations are not required).

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit $	Credit $	Debit $	Credit $

5 + 3 = 8 MARKS

During September, Monty's Menswear also purchased office furniture on credit from Ling's Furniture at a cost of $1800, plus GST of $180 (Invoice 328).

1.2 Prepare the general journal entry to record the purchase of the office furniture (narration not required).

General journal

Date	Details	General ledger Debit $	General ledger Credit $	Subsidiary ledger Debit $	Subsidiary ledger Credit $

3 MARKS

QUESTION 2 The following information is a summary of the sales and receipts of Armstrong Book Store for the first week of July 2015. This business maintains a subsidiary ledger to keep track of its debtors. Debtors control has a debit balance of $3750 on 1 July 2015.

Receipts			*$*
1	Cash sales	CRS	1000
2	A. Brody	Rec 11	500
	Cash sales	CRS	1200
3	J. Ramone	Rec 12	200
	Cash sales	CRS	1100
4	Cash sales	CRS	1300
5	Cash sales	CRS	1200
6	Interest		100
	Cash sales	CRS	1000
7	A. Brody	Rec 13	200
	Cash sales	CRS	1200
	Total		9000

Sales		*Inv.*	*$*	*GST*
1	A. Theo	212	1 200	120
2	L. Fredrikson	213	500	50
3	A. Brody	214	400	40
5	C. Love	215	350	35
6	K. Cobain	216	1 000	100
7	J. Ramone	217	300	30
	A. Brody	218	1 100	110
			4 850	485

In relation to A. Brody's account, a return of goods occurred on 4 July. Credit note number 21 was issued. The goods returned had a cost price of $50 and a selling price of $90, plus GST of $9. It was also noted that Brody owed $620 as at 1 July.

2.1 Prepare the subsidiary ledger account for A. Brody for July. You should include all relevant entries and balance the account at 31 July.

ISBN 978 1 4202 3058 1

Debtors subsidiary ledger

A. Brody a/c

Date	Cross reference	$	Date	Cross reference	$

6 MARKS

2.2 Explain how the qualitative characteristic of reliability is satisfied in relation to the return made by A. Brody.

Explanation

....

....

....

....

2 MARKS

2.3 Using the summaries provided for receipts and sales, plus the other relevant information, prepare the entries that would be posted to the general ledger account debtors control. Note: this account does not have to be balanced.

General ledger

Debtors control a/c

Date	Cross reference	$	Date	Cross reference	$

5 MARKS

ISBN 978 1 4202 3058 1

QUESTION 3 The owner of Jay's Sports Store uses the perpetual inventory system and applies the FIFO assumption to all stock cards. During August the following events took place.

Aug 27 Sales returns of 2 soccer balls approved for credit. (Credit note no. 14)
Aug 24 Returned 10 soccer balls due to faulty printing of the logo. These items were purchased on August 23. (Credit note no. 121)
Aug 31 Stocktake revealed 37 balls were on hand. (Memo 43)

3.1 An extract from the stock card for soccer balls is presented below. You are required to prepare entries in this stock card for the three events listed above.

Stock card: soccer balls

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Aug 22	Inv. 219				2	24	48	13 15	24 25	312 375
Aug 23	Inv. 453	20	25	500				13 35	24 25	312 875

3 MARKS

3.2 If a purchases return of stock previously bought on credit was not recorded in the books of Jay's Sports Store, what would be the effect on the accounting equation of this business?

	Understated / Overstated / No effect
Assets	
Liabilities	
Owner's equity	

3 MARKS

ISBN 978 1 4202 3058 1

QUESTION 4 Jarrod Carlson is the proprietor of Jazzy Menswear. During March this year the business purchased 100 ties in a variety of colours at a price of $12 each, plus GST of $1.20 per tie. The ties were selected because the colours were the same as those used by many football teams. As a marketing gimmick, he had them embroidered with the logos of the various teams. This cost Carlson $7 per tie, plus GST of $0.70. He intends to sell the ties for $29, plus GST of $2.90. When the ties were purchased, a fee of $10 was charged for the delivery, plus GST of $1.00.

4.1 Determine the cost price per tie that Carlson should record in his stock card (show workings).

Cost per tie: $

2 MARKS

4.2 Justify your treatment of the $10 delivery fee, with reference to a qualitative characteristic of accounting.

Justification:

....

....

....

....

2 MARKS

Towards the end of the football season Carlson realised that he probably purchased too many of the ties in club colours. Demand has fallen away during the year and now that the football season is almost over, he has decided to discount the ties to a price of $15 each for the remaining 20 ties. He did this on the last day of his reporting period, which is 31 August each year. Carlson made a note of this decision on Memo 63.

4.3 Prepare the general journal entry required in light of the decision taken on 31 August in respect to the ties sold by Jazzy Menswear.

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit $	Credit $	Debit $	Credit $

4 MARKS

An extract from the stock card for the football ties is shown below.

4.3.1 Complete the entry on 2 August with the relevant information.

4.3.2 Adjust the stock card to take into account Carlson's decision of 31 August.

Stock card: football ties

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Value	Qty	Cost	Value	Qty	Cost	Value
Aug 2	Rec. 319				1			20		
Aug 31										

1 + 2 = 3 MARKS

4.4 State the effect that the entry made on 31 August has on the accounting equation of Jazzy Menswear.

	Increase / Decrease / No effect	$
Assets		
Liabilities		
Owner's equity		

3 MARKS

QUESTION 5 Simon Vuu is the owner of Seddon Stationery Suppliers. His business has been very profitable lately and on 1 March 2015 Vuu invested some excess cash. He decided to invest $8000 at 4.5% interest for a two-year term. The reporting period of the business ends on 31 August each year. Interest is payable on the term deposit every year on 28 February.

5.1 Prepare the adjusting entry required on 31 August 2015 to account for the interest revenue.

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit $	Credit $	Debit $	Credit $

4 MARKS

ISBN 978 1 4202 3058 1

5.2 Prepare the interest revenue account, showing all entries required on 31 August 2015.

General ledger

Interest revenue a/c

Date	Cross reference	$	Date	Cross reference	$

2 MARKS

QUESTION 6 Craig Cook has been operating C.C.'s Hardware for a number of years. He is currently planning for the next year of business. Cook has arranged with his bank for an overdraft limit of $20 000.

The following was prepared at 30 June 2015:

	$		$
Stock control	80 000	Bank	18 000
Debtors control	32 000	Creditors control	24 000
Shop fittings	20 000	GST clearing	2 000
Accumulated depreciation	(10 000)	Loan	20 000
Vehicle	32 000	Capital	80 000
Accumulated depreciation	(10 000)		
	144 000		144 000

Budget information for the year ending 30 June 2016:

- Sales revenue (all on credit) is expected to be $380 000, plus GST of $38 000.
- All stock is purchased on 30-day credit terms.
- Cook aims for his gross profit to be 60% of sales.
- Stock loss usually amounts to approximately 5% of opening stock.
- Shop fittings are depreciated at 10% per annum, straight-line method.
- The vehicle is depreciated at 20% per annum, reducing balance method.
- Cash expenses are expected to include:
  - Casual wages $25 000
  - Advertising $5 000 plus $500 GST
  - Rent $45 000 plus $4 500 GST
  - Vehicle expenses $3 000 plus $300 GST
- Debtors and stock are expected to increase by 10% over the next year.
- Creditors are expected to be reduced to $20 000 over the next 12 months.

ISBN 978 1 4202 3058 1

6.1 Prepare a budgeted income statement for the year ending 30 June 2016.

Budgeted income statement for year ended 30 June 2016

6 MARKS

6.2 Complete the following general ledger accounts for the year ended 30 June 2016, using the historical and budgeted data provided.

General ledger

Debtors control a/c

Date	Cross reference	$	Date	Cross reference	$

Stock control a/c

Date	Cross reference	$	Date	Cross reference	$

ISBN 978 1 4202 3058 1

Creditors control a/c

Date	Cross reference	$	Date	Cross reference	$

4 + 4 + 4 = 12 MARKS

6.3 Calculate the estimated cash balance at 30 June 2016.

Bank balance $

5 MARKS

6.4 A friend of the owner has suggested that budgeting is not required, as it does not satisfy the demands of the qualitative characteristic of reliability. State two reasons why a business owner should prepare budgets.

First reason

....

....

....

....

Second reason

....

....

....

....

2 MARKS

6.5 Describe the purpose of a variance report.

....

....

....

....

2 MARKS

ISBN 978 1 4202 3058 1

QUESTION 7 The following financial ratios have been determined in relation to the business of Lovitt's Stationery Store, a business commenced in 2014.

Ratio	2014	2015	Industry average
Working capital ratio (current assets/current liabilities)	86%	82%	105%
Return on owner's investment (net profit/average capital)	5%	8%	15%
Net profit ratio (net profit/sales)	5%	6%	8%
Debtors turnover (average debtors × 365/credit sales)	36 days	43 days	Unavailable
Gearing ratio (liabilities/total assets)	70%	80%	65%

Additional information:

The business offers credit to some of its regular customers and extends credit terms of 30 days.

7.1 State two reasons why the owner of Lovitt's Stationery might be concerned about the liquidity of his business.

First reason

....

....

Second reason

....

....

2 MARKS

7.2 State two possible reasons why the business has a net profit ratio that is lower than the industry average.

First reason

....

....

Second reason

....

....

2 MARKS

ISBN 978 1 4202 3058 1

7.3 The owner is concerned that the gearing ratio is getting too high. Explain why a high gearing ratio may be a concern to a small business owner.

Explanation

....

....

....

....

2 MARKS

7.4 Lovitt is concerned about the debtors turnover rate achieved by his business. State two tactics that Lovitt could adopt in an attempt to improve the debtors turnover.

First tactic

....

....

Second tactic

....

....

2 MARKS

7.5 Lovitt is unsure about whether the return on his investment is satisfactory. State two different ways of evaluating whether or not the return on owner's equity is satisfactory.

First way

....

....

Second way

....

....

2 MARKS

QUESTION 8 Bedrock Furniture received an order for six television cabinets at $385, including GST from the Grand Hotel. The cost price of the cabinets was $220, including GST of $20. Grand Hotel paid a deposit of $400 and was issued receipt 87 on 4 March 2015. The cabinets were delivered on 29 March and invoice 342 was issued at that time. Balance day is 31 March each year.

8.1 Prepare the balance day adjustment required on 31 March in relation to prepaid revenue (narration is not required).

8.2 Record the relevant entry in the Sales Journal on 29 March 2015 when the delivery was made to the customer.

ISBN 978 1 4202 3058 1

General journal

Date	Details	General ledger		Subsidiary ledger	
		Debit $	Credit $	Debit $	Credit $

Sales journal

Date	Debtor	Inv. no.	Cost of sales $	Sales $	GST $	Debtors control $

3 MARKS

TOTAL MARKS 90

ISBN 978 1 4202 3058 1

Index

academic accountants 5
accountants 4–5
accounting
  qualitative characteristics 7–8
  understandability 218, 232
accounting entity principle 7, 10
accounting equation 18, 28, 213
accounting principles 10–11
accounting process 38
accounting reports 38, 47
  analysis and interpretation 471–98
  horizontal 473, 475
  vertical 471–4, 475
accounting standards 5–6, 10
Accounting Standards Board 5, 6
accounting systems
  computerised 48–50, 87
  manual 38, 48–50
  overview 47–8
  see also double entry accounting
accrual accounting 23, 47, 248, 270, 283, 284
accrued expenses (expenses owing) 287–90, 297, 392
accrued revenue (revenue owing) 398–401
accumulated depreciation 272–3, 274
acid test ratio 488–9
adjusted gross profit 236, 296–7
adjusted trial balance 297–8
adjusting entries 284, 286, 291–7
advertising (donation of stock) 43, 140, 192–3
advertising expenses 287–90
age analysis of debtors 420–1, 484
agreed value 138, 139–40
analysis
  different from interpretation 471–5
  of financial reports 471–5
analysis chart 60–1, 62–3
analytical ratios 235, 237, 475–7
anticipated cash inflows 438
anticipated cash outflows 438
asset replacement 437
asset turnover rate 482–3, 485
assets 437
  age of 347, 348
  agreed value 138, 139–40
  becoming an expense 393
  book value 275, 349, 363
  carrying value 275, 349, 363
  classification 20–1
  debtors as 141
  definition 8, 9, 18, 284
  disposal of 362–3, 364, 368
  earning capacity 354
  expired cost 275
  liquidity 20
  residual value 276, 349
  scrap value 276, 349, 363, 364
  unexpired cost of 275
  useful life of 276
  valuation of 363–4
  see also non-current assets
Australian Accounting Research Foundation 5, 6
Australian Accounting Standards Board 5–6, 10
Australian business number 38
Australian Securities and Investments Commission 6, 7
Australian Society of Certified Practising Accountants 4, 5

bad debts 140–3
balance day 65, 213, 272, 275
balance sheet 38, 247
  classifications 20–1, 22–3
  and depreciation 275–6
  and income statement 234
  narrative format 18–20, 21
  and profit 234
  purpose 18
  sections 18
  T-form 18–19, 21, 59
  two-fold effect of transactions 23–8
balance-day adjustments 47, 272, 284, 291–7, 392–401
balancing an account 65–7, 213
bank statements 45
barcodes 182
book value of asset 275, 349, 363
budget performance report 450–2
budget variance report 450–3
budgeted balance sheet 436, 447–50
budgeted cash flow statement 436, 437–8, 439–44, 445
budgeted income statement 436, 444–6
budgeting
  budgeted income statements 436, 444–6
  cash budgeting 437–44
  need for 436–7
  process 450
  reviewing and modifying 437, 450–3
budgets, types and purposes 436, 437
business documents 7–8, 46, 47
  bank statements 45
  cash transactions 40–1
  copying 38
  credit transactions 41–2, 43–4, 106
  and GST 38–40
  memorandums 43
  order forms 44–5
  quotations 44, 45

capital account 216–19
capital budget 437
capital items *see* assets
carrying value of asset 275, 349, 363
cartage inwards/outwards 235, 236–7
cash 249, 415
cash at bank account 64, 87, 136
cash budgeting 437–44
cash cycle 423–4, 425, 484, 485
cash discounts 95–8
cash equivalents 249
cash flow
  classification 247–8
  and decision-making 254–5
  from financing activities 248, 249
  from investing activities 248, 249
  and liquidity analysis 489–91
  from operating activities 247–8, 249, 250–1
  and sales forecast 437
cash flow statement 248
  format 249–51
  preparing 252–3
  role 247, 249, 253, 254–5
cash flows
  anticipated cash inflows 438
  anticipated cash outflows 438
cash flows ratio 490–1
cash management 490
cash payments journal 87, 138, 328
  and creditors control account 114–15
  cross checks 94, 97
  discount revenue 96–7
  format 94
  and GST 161–4
  recording in 92–4
cash receipts 39–41
cash receipts journal 87, 138, 328
  benefits 90
  cross checks 90, 96
  and debtors control account 111
  discount expense record 95–6
  format 88–9, 94
  and GST 159–61
  recording in 88–91, 94, 95
cash transaction documents 40–1
cheques 41, 87, 92
closing a ledger account 214–15

general ledger 212–22
closing entries 214–16, 284, 286, 291–7
accounting for a net loss 218–19
coding systems for stock 180–1
common size statements 473
Companies Act 5
comparability 8, 10, 11, 354
complementary products 414
computerised accounting systems 48–50, 87
computerised coding systems 182–3
computerised inventory system 177
conservatism principle 11, 377–8
consistency principle 10, 11, 354
continuous inventory *see* perpetual inventory
contribution or withdrawal of assets by owner 138–40
control accounts 109, 115
correcting recording errors 67, 68, 143–5
cost (historical) 10, 11, 270–1, 276, 362, 498
cost centres 436
cost of goods sold and gross profit 235–7
cost of inventory 376
cost of sales account 64, 90
cost price of sales 179
barcodes 182
computerised coding systems 182–3
fixed mark-up systems 181–2
identifying 180
manual coding systems 180–1, 182
monitoring 414
and selling price 477
CPA Australia 4, 5
credit check 419
credit entries 47
credit note for returns 327, 328
credit purchases journal 88, 111–12, 328
credit sales journal 88, 106–8, 328
credit terms 426, 485
credit transactions
business documents 41–2, 43–4, 106
recording 106–8
creditors 97–8, 111, 362
schedule of payments to 442
creditors account 64
creditors control account 113, 114–15
creditors schedule 114, 442
creditors subsidiary ledger 113–14, 115, 361
creditors turnover rate 424–7, 484–5
current asset turnover rate 483
current assets 20
current liabilities 20
current ratio 486–8
customer receipts 247
customer satisfaction surveys 494–5

daybooks *see* journals
'dead stock' 412
debit entries 47
debt ratio 492
debtors 106
age analysis 420–1, 484
as asset 141
controlling 419–21
recording cash discounts for 95–6
schedule of collections from 441
slow-payers 420
debtors control account 109–10, 111, 330
debtors schedules 110, 441
debtors subsidiary ledger 109–10
debtors turnover ratio 421–3, 483, 484
decision-making and materiality 377
deferred liabilities 20
Definition of the Reporting Entity 6–7
depreciation
accumulated 272–3, 274
accuracy 364
approximation 350
balance day 272, 275
and the balance sheet 275–6
comparing methods 350–5
diminishing balance method 348–50
and the income statement 276
of non-current assets 247–8, 270–6, 353, 364
not a valuation tool 363–4
over-depreciation 364
reducing balance method 348–50
relevance 350
straight-line method 271–2, 347–8
under-depreciation 364
depreciation expense 270
diminishing balance method of depreciation 348–50
discount expense 95–6
discount revenue 95, 96–7, 237
discounts 9
reporting 237
disposal of asset 364, 368
loss on 362–3
disposal of asset account 362–3
donation of stock for advertising 43, 140, 192–3
double entry accounting 24
computerised vs manual 48
debit paired with credit 215
error detection 68
footing and balancing 65–7, 213
format 59
in general journal 476, 63–4, 135–8
in general ledger 47
and GST 164
information flow 47, 48
under perpetual inventory 179
recording entries 59–62, 64
for revenues and expenses 62–5
rules 58–65
trial balance 47, 67–9
double invoicing 415
drawings 73, 217

economic climate 497
efficiency ratios and profitability 485–6
employees, payments to 247
equities 18
errors
correcting 67, 68, 143–5
recording 67, 68, 143–5
evaluating reports 47
expense accounts 214
expense budgets 436, 437
expense ratios 475, 478–9
expenses 9, 270, 284
balance day adjustments 392
double entry accounting 62
and owner's equity 23, 62
expenses owing 287–90, 297, 392
expired cost of asset 275

favourable variance 451
FIFO (First-In, First-Out) 180, 183–4, 193, 413
financial information 3–4
financial plan 436
financial reports
analysis of 471–5
interpretation of 471–5, 494–7
financing activities 248, 249
fixed instalment method of depreciation 271–2, 347–8
fixed mark-up systems 181–2
footing an account 65

gearing 491–4
gearing ratio 492
general journal 58
bad debts 140–3
closing entries 215–16
in a computerised system 87
correcting errors 143–5
double entry 47, 63–4, 135–8
format 132–3
in a manual system 88
narration 133
need for 132
opening entry 137
posting to general ledger 133
and subsidiary ledgers 133–5

transfer of net profit 216–18
transferring drawings 217
general ledger 58
closing 213–22
double entry 47, 63–4
and stock cards 186–7
streamlining 115, 132
posting to from general journal 133
general purpose financial reporting 7–9
going concern principle 11, 283
goods and services tax
and business documents 38–40
and cash payments journal 161–4
and cash receipts journal 159–61
on cash transactions 92, 248
and computerised accounting 49
and double entry accounting 164
GST clearing account 60, 64, 156, 157–9, 161, 163–4, 165, 330
introduced 154
liability for 24, 154, 156, 248, 442–3
payments and receipts 154
and purchases journal 156–7
refund 24, 158–9, 248
and sales journal 154–6
tax invoice 38–40
goods sold for cash 24
government accountants 5
gross profit
adjusted gross profit 236, 296–7
and cost of goods sold 235–7
gross profit ratio 472, 475, 477–8

historical cost 10, 11, 270–1, 276, 362, 498
horizontal analysis 473, 475

income statement 9, 23, 38, 232–7, 436, 444–6
analytical ratios 475
and depreciation 276
information flows 46, 47–8
instalment loans 22–3
Institute of Chartered Accountants in Australia 4, 5
insurance 393
interest-only loans 22
inter-firm comparisons 498
interim profit reports 177
internal transactions 43
international accounting standards 6, 10
interpretation
accounting reports 471–8
different from analysis 471–5
financial reports 471–5, 494–7
inventory
computerised systems 177
control 412–15
credit purchases 361–2
non current assets 176
physical stocktake 176, 178, 187, 290
re-evaluation 445
valuation 376–82
see also perpetual inventory; stock
investment, cash flow from 248, 249
invoice 41–2, 116
invoice statement 234

journals (day books) 87
and recording process 47
and stock cards 193–7
see also special journals
just in time ordering 412

labour budget 436
Last-In, First-Out (LIFO) 180
ledger accounts 47
closing 214–15
double entering 58
footing and balancing 65–7
parts of 58
posting to 87
see also general ledger
liabilities
current 20
definition 8, 18
non-current 20
liability approach to prepaid revenue 392–5
liquidity 486
of assets 20
of business 475
liquidity analysis 476, 486–9
and cash flows 489–91
liquidity ratios 476, 486–9
loans 20, 22–3
loss on disposal of asset 362–3
lower of cost and net realisable value 377–81

management skills 495–6
manual accounting systems 38, 48–50, 88
manual coding system 180–1, 182
master budget 436
materiality 7, 376–7
memorandums 43
Mind Your Own Business (*MYOB®*) 49–50
monetary unit principle 11
multi-column journals 94

narrative format
balance sheet 18–20, 21
general journal 133
net assets 20
net loss, accounting for 218–19
net profit 23, 213, 216–18, 232, 233, 234–5
net profit ratio 475, 478, 485
net realisable value 377–82
net worth of business 18, 19
non current assets 20
and budgeting 437
buying and selling 176, 361–8
cash purchase of 361–2
creating expenses 270
credit purchase of 361–2
depreciation 247–8, 270–6, 353, 364
disposal of 176, 362–5
historical cost 362
reporting 203
trading in 365–8
turnover rate 483
non-current liabilities 20

Objective of General Purpose Financial Reporting 7–8
obsolete stock 414
office expenses ratio 478–9
opening general journal entry 137
operating activities, cash flows from 247–8, 249, 250–1
operating efficiency ratios 476, 482–5
order forms 44–5
over-depreciation 364
overdrafts 249
oversupply of stock 290
owner's equity 8–9, 18, 23, 62, 219, 234

part-period reports 177
payments to suppliers and employees 247
period costs 376–7
perpetual inventory 329, 330, 412, 418–19
advantages 177–8
computerised 177
disadvantages 178
double entries 179
FIFO 180, 183–4, 193, 413
identifying cost price of sales 179–83
identifying stock loss 177–8, 192
stock cards for 184–5
system 177
see also inventory; stock; stock control account
pie charts 472–3, 474
planning for the future 47
posting to ledger accounts 87
prepaid expenses 284–6, 392

prepaid insurance 393
prepaid revenue (liability approach) 392–5
prepaid sales revenue 395–7
price tags 180–1
private accountants 5
proceeds from disposal of asset 364
product cost 376–7
profit
  and balance sheet 234
  calculating 213
  definition 47, 213, 392, 444, 477
  on disposal of asset 368
  evaluating 234–5
  per hours worked 496–7
profit and loss summary account 213–14, 215, 218–19, 232
profit determination (underlying assumptions) 283
profit determination account 213
profit margin 414
profitability 477
  and efficiency ratios 485–6
profitability ratios 235, 476, 477–81
prudence principle 11
public accountants 4–5
Public Sector Accounting Standards Board 5
purchase invoice 327, 376
purchase price 376
purchases budget 436
purchases journal 156–7, 361
purchases return ratio 495
purchases returns 327–8, 332, 333–4

quality assurance 495
quick asset ratio 488–9
Quickbooks® 49–50, 419
quotations 44, 45

ratio analysis 475–97, 498
ratio benchmarks 476, 483
receipts from customers 247
recording errors 67, 68, 143–5
reducing balance method of depreciation 348–55
relevance 7, 11, 283, 377, 381
reliability principle 7–8
reporting entity 6–7
reporting frequency 498
reporting period principle 11, 233, 270, 283, 297, 347, 354
residual value of asset 276, 349
return on assets 480
return on assets ratio 235, 479–80, 485–6
return on owner's investment ratio 235, 480–1, 292–3
return of purchases 327–8, 333–4
revenue 9
  double entry accounting 62
  and owner's equity 23, 62
  prepaid 392–7
revenue account closing entry 214, 216
revenue earned for a period 392
revenue owing 398–401

SACs (Statements of Accounting Concepts) 6–9
sales budget 436, 437
sales forecast 437
sales invoice 327
sales journal 98, 154–6
sales returns 330–2, 334–6
sales return ratio 494–5
sales targets 437
schedule of collections from debtors 441
schedule of payments to creditors 442
scrap value of asset 276, 349, 363, 364
seasonal stock 413
security of stock 415
selling price
  and cost price 477
  monitoring 414
shoplifting 187, 192, 415
'shop-soiled' stock 413
slow-moving stock 413
small business owners 496–7
source documents *see* business documents
special journals
  posting to general ledger 90
  role 87–8
  shortcomings 132, 140
  uses 87–8, 108, 115, 132, 196–7
stability ratios 476
statements of account 43–4
Statements of Accounting Concepts (SACs) 6–9
stock
  coding systems 180–1
  defining 176
  donation of for advertising 43, 140, 192–3
  oversupply 290
  recording losses and gains 188–9
  turnover evaluation 416–19
stock cards
  adjusting for stock gain 190–2
  adjusting for stock loss 188–90
  and day books 193–7
  details on 184, 185
  and the general ledger 186–7
  and inventory control 177, 186–7, 188, 192, 413
  for perpetual inventory system 184–5
  recording purchases returns 332–4
  recording sales returns 334–6
  reviewing 413
  role 184–6
  updating 185–6
stock control account 64, 90, 139, 178–9, 186, 189, 190, 192, 329, 412
stock gain 177–8, 187–8, 190–2, 236, 290–2, 392
stock loss 177–8, 187, 188–90, 236, 290–1, 392, 415
stock rotation 183, 412–13
stock security 415
stock sheets 176
stock turnover rate 416–17, 423, 483
stock write-down 379–81, 382
straight-line method of depreciation 271–2, 347–8, 350–5
subsidiary ledgers 109, 116, 330
  creditors 113–14, 115, 361
  debtors 109–10
  and general journal 133–5
sundries 92
sundry creditor 362
suppliers, payments to 247

tax invoice 38–40
technological obsolescence 414
T-form balance sheet 18–19, 21, 59
trade credit 424
trade creditor 361, 362
trading in non-current assets 365–8
transactions and balance sheets 23–8
trend analysis 475
trial balance 47, 49, 67, 143, 213, 297–8, 392
  alternative presentation 68–9

under-depreciation 364
understandability principle 8, 218, 232
unexpired cost of asset 275
unfavourable variance 451
useful life of asset 276

valuation of asset 363–4
variance
  budget variance report 450–3
vertical analysis 471–4, 475

wages expense ratio 478–9
weighted average cost 180
working capital 21, 486
working capital ratio 486–8
worksheets 24–5
written-down value of asset 275

yardsticks of performance 476

Macmillan

VCE Accounting Units 3 & 4

5th edition

VCE Accounting (Units 3 & 4) is the fifth edition of the popular accounting text written specifically for the 2012–2016 Accounting study design. The chapters are written in a logical sequence to allow teachers and students to fulfil the requirements of Units 1 and 2, and is applicable to introductory Accounting courses in other states.

The text is practical, and easy to read and use. The clear and student-friendly theory is supported by graded exercises, contemporary case studies and worked examples. Links between theoretical and practical tasks are clear and encourage students to use a wide range of skills in the application of accounting knowledge.

Practical exercises are reinforced by extensive examples on Macmillan's OneStopDigital website.

Features

- Graded practical exercises, with solutions in the *Solutions Manual*
- Summary questions at the end of each chapter that highlight major theoretical concepts
- GST incorporated throughout
- A glossary of terms for each chapter
- Case studies that revise topic areas and provide links across chapters
- New and updated practical exercises
- Internet activities to supplement the text

OneStopDigital

www.onestopdigital.com.au

www.macmillan.com.au

Also available

VCE Accounting Units 1 & 2 (5e)
ISBN 978 1 4202 3055 0

VCE Accounting Units 1 & 2 (5e), digital-only version
ISBN 978 1 4202 3111 3

VCE Accounting Units 1 & 2 Solutions Manual (5e)
ISBN 978 1 4202 3057 4

VCE Accounting Units 1 & 2 Workbook (5e)
ISBN 978 1 4202 3056 7

VCE Accounting Units 3 & 4 (5e)
ISBN 978 1 4202 3058 1

VCE Accounting Units 3 & 4 (5e), digital-only version
ISBN 978 1 4202 3113 7

VCE Accounting Units 3 & 4 Solutions Manual (5e)
ISBN 978 1 4202 3060 4

VCE Accounting Units 3 & 4 Workbook (5e)
ISBN 978 1 4202 3059 8

ISBN 978-1-4202-3058-1
9 781420 230581