

Cambridge VCE **Accounting**

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Units 3&4

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www.cambridge.org

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First published 2006

Second Edition 2008

Third Edition 2012

Fourth Edition 2019

Fifth Edition 2024

20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

Cover and text designed by Shaun Jury

Typeset by Integra

Printed in China by C & C Offset Printing Co., Ltd.

A catalogue record for this book is available from the National Library of Australia at www.nla.gov.au

ISBN 978-1-009-51081-3

Additional resources for this publication at www.cambridge.edu.au/GO

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Author acknowledgements

Although these editions have been updated to reflect the changes to the 2025–2029 VCE Accounting Study Design, much of the material has been developed over a much longer period of time. In spite of the barbs of our students, our experience in VCE Accounting does not reach back to the invention of the double-entry system but it does stretch back almost 30 years, and we would again like to thank all those who have helped us along the way in developing the materials that appear in these editions.

To the staff and students at Penleigh and Essendon Grammar School (where this series began), Clayfield College, Balcombe Grammar School and Indie School, thank you for your support and guidance. Thank you to the many teachers of Accounting who have assisted us along the way, particularly for this edition Darrell Cruse and Erin McEwan, whose expertise and counsel has been invaluable. Thank you also to the persistent, patient and committed team at Cambridge University Press, especially Nick Melchior, Nicole Jones and the ever-supportive Nick Alexander (without whom these books would never have been done).

Finally, thank you to our families for their unending love and support. Look for your names in the exercises and you'll find them, but your influence is deep on every page.

Anthony and Richard

Introduction

The first editions of this *Cambridge VCE Accounting* series, released in 2007, incorporated a number of features to help students to develop a deep understanding of the principles and practices of VCE Accounting. These design elements included:

- a comprehensive coverage of the key knowledge and key skills identified in the Study Design
- clear language explanations, and Study Tips drawing attention to the ‘how’ of learning Accounting
- Review Questions and Exercises to practise applying the key knowledge and key skills
- use of the same command terms used in VCE Accounting examinations
- strategic use of colour to make visible the steps in recording transactions and their effect/s on the reports
- Margin definitions and a Glossary to support an understanding of key terms
- feedback via a list of Selected Answers and a full set of Solutions to the Exercises and Review Questions.

These latest editions continue this tradition, but have been updated to reflect the changes to in *VCE Accounting Study Design 2025–2029*, ensuring that they continue to equip students to meet the requirements of the VCE Accounting Study Design.

In short, these texts are written for and about the VCE Accounting course, focusing on what it covers and how it is assessed. We hope that you will find them helpful in your study, and that by using them you will develop your ability to think like an Accountant.

Understanding command terms used in this resource

In recent years the VCAA has published a glossary of command terms – verbs used to direct students in answering questions in formal assessments, including the VCE examinations. The terms used in this text, taken directly from the VCAA glossary, reflect directly and closely those used in the VCE Accounting examination, so that in a particular question, students ‘know what to do’.

The command terms used in this text include:

Term	Explanation
calculate	determine from given facts, figures or information; obtain a numerical answer showing the relevant stages in the working; determine or find (e.g. a number, answer) by using mathematical processes
complete	finalise an Accounting record or report to ensure it contains all necessary information
define	give the precise meaning and identify essential qualities of a word, phrase, concept or physical quantity
describe	provide characteristics, features and qualities of a given concept, opinion, situation, event, process, effect, argument, narrative, text, experiment, artwork, performance piece or other artefact in an accurate way
discuss	present a clear, considered and balanced argument or prose that identifies issues and shows the strengths and weaknesses of, or points for and against, one or more arguments, concepts, factors, hypotheses, narratives and/or opinions
distinguish	make clear the differences between two or more arguments, concepts, opinions, narratives, artefacts, data points, trends and/or items
explain	give a detailed account of why and/or how with reference to causes, effects, continuity, change, reasons or mechanisms; make the relationships between things evident
identify	recognise and name and/or select an event, feature, ingredient, element, speaker and/or part from a list or extended narrative or argument, or within a diagram, structure, artwork or experiment
justify	show, prove or defend, with reasoning and evidence, an argument, decision and/or point of view using given data and/or other information
list	provide a series of related words, names, numbers or items that are arranged consecutively
model	use Accounting skills to determine the financial effects of a particular decision
name	provide a word or term (something that is known and distinguished from other people or things) used to identify an object, person, thing, place, etc
prepare	create an Accounting document, record or report based on the information provided
record	enter transaction details in an Accounting record
report	prepare an Accounting report according to accepted conventions
show	present an Accounting record or report or table
state	give a specific name or value or other brief answer without explanation or calculation
suggest	put forward for consideration a solution, hypothesis, idea or other possible answer

Adapted from VCAA 'Glossary of Command Terms'



Unit 3

Financial Accounting for a trading business

Unit overview

This unit focuses on financial accounting for a trading business owned by a sole proprietor, and highlights the role of accounting as an information system. Students use the double entry system of recording financial data and prepare reports using the accrual basis of accounting and the perpetual method of inventory recording.

Students develop their understanding of the accounting processes for recording and reporting, and consider the effects of decisions made on the performance of the business. They interpret reports and information presented in a variety of formats and suggest strategies to the owner to improve the performance of the business.

Where appropriate, the accounting procedures developed in each area of study should incorporate the application of the Conceptual Framework, financial indicators to measure business performance, as well as the ethical considerations, including financial, social and environmental considerations, faced by business owners when making business decisions.

Source: VCAA, *VCE Accounting Study Design 2025–2029*, page 26.

Where are we headed?

The key knowledge and key skills of Unit 3 of the VCE Accounting course are covered in the following chapters:

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Chapter 4 Cash transactions: documents, the GST and the General Journal	74
Chapter 5 Accounts Payable: documents, the GST and the General Journal	110
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Chapter 12 Balance day adjustments: bad and doubtful debts	354

Chapter 1

The role of Accounting



Learning intentions

After completing this chapter, you should be able to:

- **explain** the purpose of Accounting
- **explain** the importance of non-financial information
- **explain** how ethical considerations affect business decision-making
- **identify** the users of Accounting information and the financial information they may require
- **distinguish** between financial data and financial information
- **identify** and **explain** the stages in the Accounting process
- **define** and **apply** the Accounting assumptions and Qualitative characteristics
- **explain** the relationships between the Accounting assumptions and Qualitative characteristics
- **identify** and **define** the Elements of financial statements.

Key terms

After completing this chapter, you should be familiar with the following terms:

- Accounting
- non-financial information
- ethical considerations
- financial data
- financial information
- transaction
- Accounting process
 - source documents
 - recording
 - reporting
 - advice
- Accounting Standard
- Conceptual Framework
- Accounting assumptions
 - Accounting entity
 - Going concern
 - Period
 - Accrual basis
- Qualitative characteristics
 - Relevance
 - Faithful representation
 - Verifiability
 - Comparability
 - Timeliness
 - Understandability
- materiality
- Elements of financial statements
 - assets
 - liabilities
 - owner's equity
 - revenues
 - expenses.



1.1 The purpose of Accounting

Decisions, decisions, decisions – we make them every day. From deciding what to wear in the morning to choosing what we will eat for dinner, decision-making is part of our lives as people, citizens and consumers. The bases on which we make those decisions vary as much as the decisions themselves, as we use logic, preference, instinct, emotion and even a ‘toss of a coin’ to make up our minds and decide what we should do.

When we reflect on the best decisions we have made, we may find that sometimes we have been very successful ‘going with our gut’ or ‘following our heart’. But when we think about *financial* decisions, it is usually the case that our best decisions are made when we have good data and information, analyse carefully, weigh our options logically, and then pick the one that is most likely to succeed.

In financial decisions, we need a way – a ‘system’ – to generate and analyse information so that we may make sound decisions. This is the purpose of Accounting: to provide financial information and advice to assist decision-making.

With this purpose in mind, **Accounting** can be described by the processes it uses to generate and communicate financial information. That is, Accounting involves:

- collecting and recording financial data
- reporting, analysing and interpreting financial information
- advising users about possible courses of action to assist decision-making.

At its core, Accounting is about decision-making. Just as history exists as a way of understanding the present by making sense of the past, Accounting exists as a way of improving decision-making by making sense of financial information. Accounting cannot guarantee that decision-makers will make the *right* decisions, but through the provision of information and advice it should at least help them to make *more informed decisions*, increasing the chances of better decisions being made.

Accounting for small business

Accounting is used by individuals, businesses (large and small), not-for-profit organisations and governments, and in all cases serves the purpose of generating and communicating financial information and advice so that better decisions can be made. In this course we will focus on how Accounting supports decision-making for small businesses, defined (for the purpose of this course) as sole traders, where there is one owner of the business, who is also its manager.

Many owner/operators begin in business precisely because they have expertise related to the product they are selling and the market in which it is being sold. Indeed, it is this expertise that helps them to make decisions about selecting product lines, setting prices and approving advertising campaigns.

Accounting

the process of collecting and recording financial data; reporting, analysing and interpreting financial information; and advising users about possible courses of action to assist decision-making

Study tip

Accounting is best described as a *process* – a ‘way of doing things’ – that is designed to generate financial information to support decision-making.

Study tip

There are other ways to define ‘small business’, but this course concentrates on sole traders only.



However, small business owners also need detailed information about a range of other financial issues that may affect their chances of business success, including:

- keeping financial records
- preparing financial reports
- determining tax obligations
- managing cash and ensuring the business can meet its short-term debts
- assessing the firm's ability to earn profit and continue operating into the future.

Accounting plays a critical role in providing important financial information on issues like these so that the owner can make informed decisions about how to respond.

Financial information

The quality of the information generated by an Accounting system will have a direct effect on the quality of the decisions that are made: good financial information will improve the chances of good decisions being made.

For this reason, the Accounting profession (in conjunction with governments and professional bodies) has developed a framework for how Accounting information should be generated and reported, which includes:

- a number of assumptions that underpin the preparation of financial reports (see Section 1.4)
- the Qualitative characteristics of the information in the reports (see Section 1.5)
- the definitions of the Elements of the reports themselves (see Section 1.6).

Each feature of the Accounting system is designed to both reflect and support this framework for how financial information should be generated and presented.

Study tip

Much of this text is concerned with applying these theoretical components, and each is explained in detail in this chapter and throughout the text as it arises.

Other considerations

The ability to make good decisions rests not only on the financial information generated by an Accounting system. Decision-makers must also take into account any available non-financial information and think about the social and environmental consequences – the ethical considerations – of a decision.

Non-financial information

Most information used in Accounting is financial in nature. Important information like sales revenue, monthly wages, cash in the bank and even Net Profit are all measured in dollars and cents (or another currency) and reported in the financial statements. This information is critical to decision-making, but even the best financial information cannot provide a complete picture on its own.

Non-financial information is a very broad term that includes any information that cannot be found in the financial statements, and is not expressed in dollars and cents, or reliant on dollars and cents for its calculation. It could include business-specific information like the number of website hits in the last month, the number of customer complaints about a particular product or the average length of employment for staff; to more general information like a council decision to change parking conditions at a shopping centre, a looming legal case about the safety of particular products, changes to workplace laws or even the weather reports that might affect sales of ice-creams at a beach café!

non-financial information

any information that cannot be found in the financial statements, and is not expressed in dollars and cents, or reliant on dollars and cents for its calculation



Video 1.1
Accounting and
decision-making



Taken together with the financial information, this non-financial information helps to present a more complete and accurate picture of the firm's circumstances, allowing the owner to make more informed and thus more effective decisions.

Ethical considerations

Ethical considerations

ethical considerations

the social and environmental consequences of a financial decision; for Accountants, the requirement to act with integrity, impartiality, objectivity and confidentiality

Study tip

There is no set list of 'ethical considerations' in this course, but examples will be presented as issues arise.

Even with complete information, decisions themselves need to be made within an ethical context, as they can have real and lasting effects on people and the environments in which they live. Deciding to change wages and conditions can affect not just the profit of the business concerned, but also the livelihood of its employees and, in a small town, the viability of the entire community. Obtaining materials from a renewable source might mean marginally higher short-term costs, but it might provide long-term sustainability of the resource itself.

Examples like these illustrate that business decisions usually have both financial and non-financial consequences. For this reason, Accounting is increasingly concerned not just with the financial parameters of decision-making, but also with its ethical ramifications. These **ethical considerations** include the social and environmental consequences of a decision: the effects on people, communities and society, and the local and wider environment.

Users of Accounting information need to think about how a decision will affect not only the financial side of the business, but also the people and community with whom it is connected, and its local and global environment. After all, the long-term success of a business is inextricably linked to the health of the society and environment in which it operates.

For Accountants, acting ethically also means maintaining their own integrity, impartiality and objectivity, as well as the *confidentiality* of their client's information. For clients to accept the advice they are given, Accountants need to be honest and trustworthy, and base their advice on a complete and unbiased assessment of all the available information (rather than what suits their own agenda or will benefit them personally).

Considering all these factors – financial information, non-financial information and ethical considerations – Accounting should be seen as both a *technical* and a *social* practice:

- *technical* in that it applies specific, *technical knowledge* and *processes* to generate, communicate and analyse financial information and
- *social* in that it involves understanding, liaising with and advising *people* who are not only responsible for decision-making, but also affected by the decisions that are made.



Review questions 1.1

- 1 **Explain** the purpose of Accounting.
- 2 **Define** the term 'Accounting'.
- 3 **List** five financial issues about which small business owners would need detailed information.
- 4 **Define** the term 'non-financial information'. **Identify** two examples of non-financial information and **explain** how each might affect business decision-making.
- 5 **Explain** why non-financial information is important for decision-making.
- 6 **Define** the term 'ethical considerations' as it relates to business decision-making.
- 7 **Explain** the importance of ethical considerations in business decision-making.
- 8 **Describe** what an Accountant must do to perform their role ethically.



1.2 Users of financial information

This course concentrates specifically on Accounting for sole traders; that is, trading businesses that are owned by only one person, who is usually responsible for running the firm. For this reason, we will concentrate on the information that the *owner* will want to see.

However, it is important to note that a number of different parties may be interested in the firm's financial information. Including the owner, these parties are known as the 'users' of the Accounting information, and may include:

- **Accounts Receivable and other customers**, who may wish to know about the firm's continuing ability to provide them with goods
- **Accounts Payable and other suppliers**, who may wish to know about the firm's ability to repay what it owes them
- **banks and other financial institutions**, who will want to know about the firm's current levels of debt before providing it with any additional finance
- **employees**, who may wish to know about the firm's long-term viability – and their long-term employment prospects – or its ability to afford improvements in wages and conditions
- **prospective owners**, who may wish to know about the firm's financial structure and earnings performance
- **the Australian Taxation Office (ATO)**, which will require financial information for taxation purposes.

Considering the variety of users of financial information, and the different information each may require, what information should the Accounting system provide? This seemingly broad question has a surprisingly straight-forward answer: the Accounting system should provide whatever information the user decides is necessary. This means that it is the *user* – not the Accountant or the Accounting system – who decides what is necessary.

Study tip

In this course, almost all Accounting information will be generated with the needs of the owner in mind.

financial data

the raw facts and figures upon which financial information is based

financial information

financial data that has been sorted, classified and summarised into a more useable and understandable form

Financial data versus financial information

Given that Accounting is concerned with providing information, it is worth noting the difference between financial *data* and financial *information*. **Financial data** refers to the raw facts and figures on which financial information will be based. For most businesses, this data is contained in their receipts, invoices and other business documents, with a file full of business documents providing the details (data) relating to the firm's activities over the last week or month.

In their original form these documents would be of limited use as the data has not been processed in any way. Only when this information is sorted, classified and summarised into a more useable and understandable form does it become **financial information** that can be used as the basis for business decisions. This sorting, classifying and summarising is performed by the Accounting system.



Review questions 1.2

- 1 **List** six users of financial information.
- 2 **Explain** why banks and other financial institutions will be interested in the financial information of a small business.
- 3 **Explain** the difference between 'financial data' and 'financial information'.



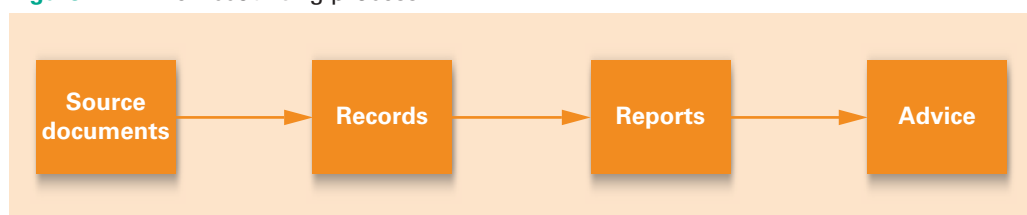
1.3 The Accounting process

Accounting process

the process used to generate financial information from financial data leading to the provision of advice to assist decision-making

Earlier, Accounting was described as 'a process' – a way of doing things – to aid decision-making. This process involves financial data first being collected, then processed into a useable form, and then communicated so that the business owner has meaningful information on which to base a decision. The Accountant should then provide some guidance as to appropriate courses of action. These four 'phases' or 'stages' are the basis of what is known as the **Accounting process**.

Figure 1.1 The Accounting process



Stage 1: source documents

Source documents provide the data on which the Accounting information is based.

The most basic event in business is a **transaction** (an exchange of goods or services with another party), and each transaction must be verified or 'proven' by a source document. **Source documents** are therefore the documents (paper or electronic) that provide both the evidence that a transaction has occurred and the details of the transaction itself.

Common source documents include:

- **receipts (manual and EFT) generated by the business and bank statements**, which provide evidence of cash received by the business
- **EFT payment documents (manual and EFT) issued by suppliers and bank statements**, which provide evidence of cash paid by the business

transaction

an exchange of goods or services with another party

source document

document that provides both the evidence that a transaction has occurred and the details of the transaction itself

- **invoices**, which provide evidence of credit sales and purchases
- **memos**, which provide evidence of transactions within the firm itself.

These source documents are covered in more detail in Chapter 4.

A business will enter into many transactions every day, and every one of these transactions must be detailed on a source document, with the documents collected, sorted and stored.

Stage 2: recording

Once the source documents have been collected, the data each contains must be written down or noted in a more useable form, or 'recorded'. **Recording** thus involves sorting, classifying and summarising the data contained in the source documents so that it is more useable.

Common Accounting records include:

- **journals**, which record individual transactions
- **ledgers**, which record the effect of transactions on each of the items in the firm's Accounting reports
- **inventory cards**, which record all the movements of inventory in and out of the business.

These Accounting records, and how they are used, will be discussed in detail throughout this text.

Stage 3: reporting

This stage of the Accounting process involves taking the information generated by the Accounting records (in Stage 2) and reporting that financial information to the owner of the business in an understandable form. **Reporting** thus involves the preparation of financial statements that communicate financial information to the owner, so that advice can be provided and decisions can be made.

There are three general-purpose reports that all businesses should prepare:

- **Cash Flow Statement**, which reports on the firm's cash inflows and outflows, and the change in its cash balance over a period
- **Income Statement**, which reports on the firm's revenues, expenses and profit from its trading activities over a period
- **Balance Sheet**, which reports on the firm's assets and liabilities at a particular point in time.

This text explores each of these reports developmentally, beginning with simple versions and adding layers of complexity as the Accounting system becomes more sophisticated.

Stage 4: advice

Armed with the information presented in the reports, the owner should be in a better position to make informed decisions and take action. However, the best course of action is sometimes unclear. Therefore, the Accountant should be able to offer **advice** by presenting owners with a range of options, an assessment of those options and some suggestions about an appropriate response. The advice should also consider any available non-financial information and take into account any relevant ethical considerations.

Study tip

As far as the Accounting process is concerned, if it isn't written down, it didn't happen.

recording

sorting, classifying and summarising the data contained in the source documents so that it is more useable

reporting

the preparation of financial statements that communicate financial information to the owner

advice

the provision to the owners of a range of options appropriate to their aims/objectives, together with recommendations as to the suitability of those aims/objectives

Essentially, the Accounting process involves collecting data from source documents; sorting it, classifying it and writing it down; communicating the financial information to the owner; and providing advice about that information to support decision-making. It is the provision of advice that is the Accountant's key function, as it is this advice that assists the owner in decision-making, but the advice itself rests on the information generated by the first three stages of the Accounting process.



Review questions 1.3

- 1 **List** the four stages in the Accounting process.
- 2 **Explain** the role of source documents in the Accounting process.
- 3 **Identify** the type of transaction evidenced by the following source documents:
 - manual receipt generated by the business
 - EFT document generated by a supplier
 - invoice
 - memo.
- 4 **Explain** the difference between the 'recording' and 'reporting' stages of the Accounting process.
- 5 **State** the purpose of each of the following Accounting reports:
 - Cash Flow Statement
 - Income Statement
 - Balance Sheet.





1.4 Accounting assumptions

By and large, Accountants approach their craft from a common perspective. For instance, all would agree that a motor vehicle purchased by the business in 2023 for \$45 000 should be regarded as an asset of that business.

This shared understanding of 'how Accounting should be done' rests on a mixture of generally agreed theoretical principles, specific definitions, rules and procedures (many reflected in **Accounting Standards**), and even particular laws.

Some years ago, the International Accounting Standards Board (IASB) attempted to 'codify' these agreed principles and ideas in its 'Conceptual Framework for Financial Reporting'. The **Conceptual Framework**, as it has become known, brings together the broad concepts that underpin the preparation of financial reports including:

- a number of Accounting assumptions that underpin the preparation of financial reports
- the Qualitative characteristics of the information in the reports (see Section 1.5)
- the definitions of the Elements of the reports themselves (see Section 1.6).

Taken together, the Accounting assumptions, Qualitative characteristics and definitions of the Elements of the reports help Accountants to make decisions about how to report – and therefore how to record – transactions and business events. In effect, they become the 'rule book' for how the game of Accounting is 'played', or how Accounting should be 'done'.

When generating Accounting information, there are certain things that Accountants agree are 'true', and these **Accounting assumptions** provide the starting point for how Accounting information is generated and reported.

The Accounting system covered in this course rests on the following four Accounting assumptions:

- the Accounting entity assumption
- the Going concern assumption
- the Period assumption
- the Accrual basis assumption.

Accounting entity assumption

The **Accounting entity assumption** is critical for defining 'who': whose Accounting information is being considered, and whose performance is being assessed. It states that the records of assets, liabilities and business activities of the entity are kept completely separate from those of the owner of the entity as well as from those of other entities. A separate set of accounting records is maintained for each entity, and the financial statements prepared provide information on that entity only.

The idea that the business and owner are considered separate may seem odd, especially when we consider that the owner of a sole proprietorship is frequently the person behind the counter. Indeed, from a *legal perspective* the owner and the business are considered to be *the same*, with a sole trader legally responsible for the activities and debts of the business.

However, from an *Accounting perspective* the business must be assumed to be *separate* from the owner. If we are to assess the performance of *the business*, we must include only information relevant to *the business*, and provide information on that entity only. The owner may have a beach house or a four-wheel drive, but if these items are not contributing directly to the firm's performance, they must not be included as business assets.

Accounting Standard

a technical pronouncement that sets out the required Accounting for particular types of transactions and events for businesses reporting under company law

Conceptual Framework

a statement of generally accepted theoretical principles that form the frame of reference for financial reporting

Accounting assumptions

the generally accepted principles that influence the way Accounting information is generated

Study tip

Accounting Standards underpin many of the techniques used in this text, but students are not required to know the relevant Accounting Standard.

Accounting entity assumption

the assumption that the records of assets, liabilities and business activities of the entity are kept completely separate from those of the owner of the entity as well as from those of other entities

Transactions between the business and the owner

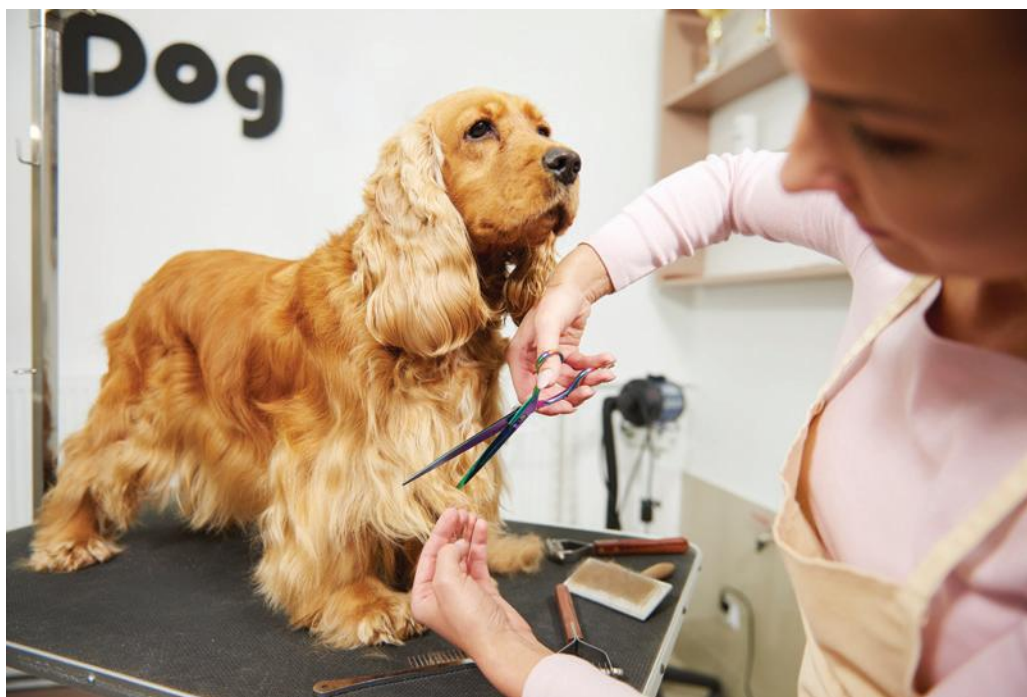
In practical terms, the Accounting entity assumption means that the business must have its own Accounting records as well as its own separate bank account, and that business bank account should only be used for business purposes. If the owner uses business funds for personal purposes, this must be recorded in the business' records as 'Drawings' – a reduction in the owner's equity in the business. In the same way, if the owner contributes personal assets to the business, then this should be recorded as a 'Capital contribution' from one entity (that is, the owner) to another entity (that is, the business), increasing the owner's equity in the business.

Going concern assumption

the assumption that the existing entity will continue to operate in the future, and its records are kept on that basis

Going concern assumption

The **Going concern assumption** states that financial reports are prepared on the assumption that the business will continue to operate in the future and not be wound up in the near future but rather continue its activities. It asks us to assume that the life of the business will be continuous and prepare reports on this basis.



This assumption is critical for businesses being able to record and report, and value, transactions that have occurred but that will have an effect on the firm's future operations. For instance, assuming the business will operate in the future allows the business to record and report the effect of credit transactions. Where a sale is made on credit terms, the cash will not have been received from the customer. The Going concern assumption allows us to record these Accounts Receivable (or 'debtors') as assets because at some stage in the future the business is likely to receive the cash. The same applies to amounts the business owes to its Accounts Payable (or 'creditors') for its credit purchases, which will only be paid in the future.

Further, because Going concern assumes the entity does not need or intend to liquidate (sell) all its assets immediately, those assets do not need to be valued at their current market value (what they would realise if sold today). Instead, assets can be valued at what they represent in terms of future contribution to the business (i.e. purchase price less any accumulated depreciation).

Period assumption

The **Period assumption** states that reports are prepared for a particular period of time, such as a month or a year, in order to obtain comparability of results. This assumption has the effect of helping to define the *when* of reporting, effectively putting 'brackets' around the transactions that are included in (and excluded from) the reports on the basis of when they occurred. A period can be as short as the owner requires, but in most cases, to meet taxation requirements, it is no longer than a year.

The adoption of this assumption is a direct consequence of the Going concern assumption, which assumes the business will continue to operate into the future. Assuming the business will continue indefinitely would mean we could never calculate profit, as the firm's operations would never be finished.

However, if we divide the life of the business into periods of time (such as a month or a year), it allows for profit to be determined *for that period*. Further, in calculating that profit figure, we use only the revenue earned *for the period*, less the expenses incurred *for the period*. Revenues and expenses earned or incurred outside of the current period are excluded from the current reports and reported in the (previous or future) period when they occurred or will occur.

The Period assumption is also significant in distinguishing between assets (whose benefit extends into *future periods*) and expenses (whose benefit is consumed within the *current period*). Both will bring economic benefits to the business but for differing lengths of time (and across different periods).

Period assumption

the assumption that reports are prepared for a particular period of time, such as a month or year, in order to obtain comparability of results

Study tip

See Section 1.6 for a discussion of the difference between assets and expenses.

Accrual basis assumption

Whereas the Period assumption helps us to define the period of time for which we are reporting, the **Accrual basis assumption** helps us to decide what needs to happen for items to be included in the reports at that time.

Strictly speaking, the Accrual basis assumption means that the Elements of the reports (assets, liabilities, owner's equity, revenues and expenses) are recognised and reported when they satisfy the definitions and recognition criteria for those elements. That is, items should be reported if and when they meet all parts of the definition. As a result, it is important that Accountants understand and can apply the definitions of these elements. (Section 1.6 will explore these definitions in detail.)

In practice, the Accrual basis assumption is most directly applied to revenues and expenses, so profit is calculated by subtracting expenses *incurred* for the period from revenue *earned* for that period.

Under the Accrual basis assumption the definition of revenue is satisfied *at the point of sale*, because this is when the inflow of economic benefits from the sale (represented by cash or an amount due to be received from Accounts Receivable) can be measured in a faithful and verifiable manner (by reference to the source document). This means revenues are recognised in the period in which they are *earned*.

Similarly, the definition of an expense is satisfied when the consumption of the goods or services can be measured, because this is when the decrease in assets or increase in liabilities occurs. This means expenses are recognised in the period in which they are *incurred*.

Importantly, the Accrual basis assumption does not require cash to be received or paid for revenues and expenses to be recognised. Even where a business has made a credit sale and is waiting to receive cash, or has not yet paid for some of its expenses, the Accrual basis assumption says these amounts should still be included in the calculation of profit as the revenue has been *earned* (when the goods were sold) and the expense *incurred* (when the item was consumed) during the current period.

Accrual basis assumption

the assumption that revenues are recognised when earned and expenses are recognised when incurred, so profit is calculated as revenue earned in a particular period, less expenses incurred in that period



Review questions 1.4

- 1 **Define** the following Accounting assumptions:
 - Accounting entity assumption
 - Going concern assumption
 - Period assumption
 - Accrual basis assumption.
- 2 **Explain** one practical consequence of adopting the Accounting entity assumption.
- 3 **Explain** how the Going concern assumption allows businesses to:
 - report assets and liabilities
 - value its assets.
- 4 **State** the length of a reporting period. (Beware: this is a trick question!)
- 5 **Explain** why the implementation of the Going concern assumption requires the adoption of the Period assumption.
- 6 **State** how profit is calculated under the Accrual basis of Accounting.
- 7 **Explain** the relationship between the Going concern, Period and Accrual basis assumptions.



1.5 Qualitative characteristics

Qualitative characteristics

the qualities of the information in financial reports

Whereas the Accounting assumptions describe the generally agreed principles that underpin the preparation of financial reports, the **Qualitative characteristics** describe the qualities of the information in those reports. As a group, these Qualitative characteristics describe what the information 'should be like' if it is to be used to support financial decision-making.

In this course, the six Qualitative characteristics of the financial information in Accounting reports are:

- *Relevance*
- *Faithful representation*
- *Verifiability*
- *Comparability*
- *Timeliness*
- *Understandability.*

Relevance

Relevance

financial information must be capable of making a difference to the decisions made by users by helping them to form predictions and/or confirm or change their previous evaluations

Relevance states that financial information must be capable of making a difference to the decisions made by users of the report. Relevant information must be related to an economic decision and either help users to *form predictions* about the outcomes of events or *confirm* (or change) their previous evaluations, or both.

The application of *Relevance* helps Accountants to decide what information to provide in the financial reports; that is, users should be provided with *all* information that may make a difference to their decision, but at the same time *only* with information that may make a difference to their decision. That is, *Relevance* tells us what to *include*, but also what to *exclude*.

Relevance is supported by following the Accounting entity assumption. For example, a Balance Sheet for a business would *include* the assets and liabilities of *that business*, as this information is useful for making predictions about future *business* activities (such as meeting short-term debts). By contrast, the business' Balance Sheet would *exclude* the personal assets of *the owner* and assets of *other businesses*, as they are assumed

to be *separate entities*. These assets are not being used by *our business* (the business for whom we are Accounting) to earn revenue, so this information is not helpful in making decisions about *our business*.

Similarly, *Relevance* is supported by the Period and Accrual basis assumptions. That is, an Income Statement should *include* only revenues earned and expenses incurred in the *current period* as these will make a difference to decisions about *this year's* performance: wages incurred *last year* or sales revenue to be earned *next year* will not confirm or change our assessment of *this year's* profit and so should be *excluded* from this year's report.

Relevance tells us which information should be included, as well as excluded, when financial reports are prepared: if information is capable of making a difference to decision-making, it is Relevant and should be included in the reports; if not, it should be excluded.

Materiality

The *Relevance* of information is determined largely by whether the *nature* of the item makes it capable of making a difference to decision-making. For instance, revenues and expenses are relevant to making decisions about earning profit and so should be included in an Income Statement; assets and liabilities are relevant to considering financial position and so must be reported in a Balance Sheet. These principles will apply to *all* businesses.

However, there could be other information that may be relevant, or not, *depending on the business itself*. According to the Framework, information is **material** – and thus Relevant – if omitting, misstating or obscuring it could influence decisions that users make, and this will depend on its *nature* and *magnitude* (size).

For instance, *Relevance* might allow us to report Total Assets as \$1 400 000 rather than \$1 399 480 as this difference is *too small* to be material: \$520 will not change decisions based on assets of almost \$1.4 million. It might also allow us to report \$1.95 spent on stationery as part of 'Office supplies' or even omit it from the Balance Sheet altogether (as it is such a small amount) and instead report it as an expense. In both cases, the inclusion (or exclusion, for that matter) of the information will not influence the decisions that users make: the size of the items is not material, and therefore not relevant.

At the same time, information that is small may still be material, and therefore *Relevant*. For instance, a small payout to a customer as compensation for a faulty product may still be material as it may influence decisions about the long-term viability of the business. The same might be true for errors identified in the recording of certain expenses or the detection of theft or fraud. The nature of these items makes them material, and therefore Relevant, so they should be disclosed in the financial reports.

materiality

an entity-specific aspect of Relevance, based on the nature or magnitude of an item, that says information must be included if omitting, misstating or obscuring it could influence decisions that users make

Study tip

Materiality is not a Qualitative characteristic itself but can help in determining Relevance.

Faithful representation

Faithful representation states that financial information must be a faithful (or 'truthful') representation of the real-world economic event it claims to represent and be complete, free from material error and neutral (without bias).

Let's unpack each aspect separately:

- *Complete* means information that presents 'the whole picture' including, as a minimum, a description and a numerical valuation for the item, and any other details that are necessary for the user to understand what is going on.
- *Free from material error* means information that is accurate and can be checked or verified to support its accuracy.

Faithful representation

financial information should be a faithful representation of the real-world economic event it claims to represent: complete, free from material error and neutral (without bias)

- *Neutral (without bias)* means information that is not subjective or based on guesses, and this usually means using information that can be verified by reference to a source document rather than estimates. Where estimates cannot be avoided, neutrality requires that they should be determined without bias towards a particular representation or result so that they are more reliable for use.

These three aspects are applied together to ensure that financial information provides a *Faithful representation* of what has occurred. For example, a *Faithful representation* of an asset like a vehicle would include its Historical cost (and not just its current Carrying value), as this original purchase price is verifiable by the source document and thus without error and also neutral. An asset like inventory might similarly be valued at its purchase price rather than its selling price, as the selling price is an estimate and thus neither free from error nor neutral (but biased).

Whereas *Relevance* helps the Accountant to decide what to include, *Faithful representation* emphasises the *quality* of the information that has been included. If users are to rely on financial information to make decisions, they need to have confidence that the information they are given represents accurately (faithfully) what actually occurred, and this will be the case only if the information is complete, free from error and neutral. Poor information – information that is incomplete, inaccurate or biased – will lead to poor decisions and undermine the very purpose of Accounting.



Verifiability

Verifiability

financial information should allow different knowledgeable and independent observers to reach a consensus (agree) that an event is faithfully represented

Verifiability states that financial information should allow different knowledgeable and independent observers to reach a consensus or agree (arrive at the same conclusion) that an event is faithfully represented. This is maintained by retaining source documents used to record transactions and checked through auditing and other checking mechanisms (such as a Trial Balance to verify the General Ledger or a physical inventory count to verify the balance of inventory on hand).

Verifiability is thus a core way of ensuring that *Faithful representation* is upheld and the reason estimates are not used unless absolutely necessary and budgeted (predicted)

information is not included in financial reports. It is a way of holding the members of the Accounting profession accountable for their work.

Comparability

Comparability states that financial information should enable users to identify and understand similarities in, and differences among, items. Information about an entity is more useful if it can be compared with similar information about other entities and with similar information about the same entity for another period or another date.

One of the most basic uses of Accounting reports is to allow owners to make comparisons between different businesses, and/or over time, so that they can identify and understand similarities and differences in the way each business has been operating. This information can then inform their decision-making and help them to improve their firm's operations.

However, comparisons like this require the use of consistent Accounting methods (between businesses or between periods), so that differences in results can be linked to differences in performance (and not just differences in Accounting methods). The amounts in the reports do not need to be the same, but the way they are calculated does. Where Accounting procedures are different, this should be stated clearly (disclosed) in the reports, so that the users can make more informed assessments of what the reports are telling them.

Comparability

financial information should enable users to identify and understand similarities in and differences among items when compared with similar information about other entities, and with similar information about the same entity for another period or another date

Timeliness

Timeliness states that financial information should be available to decision-makers in time to be capable of influencing their decisions.

If business owners are to use financial information to inform their decision-making, that information needs to be available at the time decisions are being made. It is of little use to receive information about ballooning wages costs only after new staff have been hired, or to discover that sales have increased only after that product line has been discontinued. Timely information improves the *Relevance* of the reports as the owner has all the information that is capable of making a difference to their decision-making. Generally, the more current the information is, the more useful it is to decision-making (or conversely, the older it is the less useful it is), so up-to-date information means better decisions.

Timeliness

financial information should be available to decision-makers in time to be capable of influencing their decisions

Understandability

Understandability states that financial information should be understandable or comprehensible to users with a reasonable knowledge of business and economic activities, and presented clearly and concisely.

The most basic function of Accounting reports is to communicate information to the user, and for a sole trader that user is the owner. Although it is fair to assume that owners have a reasonable knowledge of business and economic activities, most small business owners are not Accountants, so it is not sensible to present reports in a form that they cannot understand. In addition to classifying and categorising the information, it may be more effective to present information in graphs, tables or charts, or simply in language that is free from Accounting jargon, so that the owner can understand what is going on.

Understandability

financial information should be understandable or comprehensible to users with a reasonable knowledge of business and economic activities, and presented clearly and concisely



Review questions 1.5

- 1 **Define** the following Qualitative characteristics:
 - *Relevance*
 - *Faithful representation*
 - *Verifiability*
 - *Comparability*
 - *Timeliness*
 - *Understandability*.
- 2 **Explain** how the Accounting entity and Period assumptions ensure *Relevance* in the Accounting reports.
- 3 **Explain** how an Accountant could ensure the *Faithful representation* of a non-current asset like a vehicle.
- 4 **Explain** how *Verifiability* supports the *Faithful representation* of financial information.
- 5 **Explain** how the recording system supports *Comparability* in Accounting reports.
- 6 **Explain** how *Timeliness* improves the *Relevance* of financial information.
- 7 **Suggest** two ways of improving the *Understandability* of Accounting reports.



1.6 Elements of Accounting reports

We have discussed at length the qualities that Accounting reports should possess, but what items should they include? The Framework identifies the Elements of the Accounting reports as:

- assets
- liabilities
- owner's equity
- revenues
- expenses.

Assets

The word 'asset' is used in a variety of settings, usually to describe 'something of value' (such as 'They're a real asset to the team'). In Accounting, the term 'asset' still has connotations of value, but it is defined in a very specific way and, as with most Accounting terms, the specifics of the definition are very important in determining whether an item can in fact be identified as an asset.

In Accounting, an **asset** is defined as a present economic resource controlled by an entity as a result of past events, where an 'economic resource' is a right that has the potential to produce economic benefits. Let's explore this definition a little further.

Present economic resource

Economic resources are simply items that have the potential to produce economic or financial benefits for a business, such as 'Bank' (the cash held there, not the building), 'Accounts Receivable', 'Inventory', vehicles and premises.

Under this definition, items need only to represent *potential* economic benefits to be recognised as assets. The idea of potential economic benefit recognises that assets represent some sort of *future* economic benefit – a benefit that is yet to be received. This reflects the Going concern assumption. For example, cash in the bank can be spent and inventory can be sold at some point *in the future*; the amount owed to the business

asset

a present economic resource controlled by an entity as a result of past events

by its Accounts Receivable will (hopefully) be received as cash at some time *in the next month or so*; and items such as premises and vehicles will usually be used for business activities for a number of years *into the future*.

On the other hand, cash paid for this month's wages is *not* an asset, as there is no *potential* benefit. In order to gain a further benefit from employees, a further payment must be made. Items such as this cannot be classified as assets because their benefit does not extend beyond what has already been received.

The idea of *potential* economic benefit also means that businesses can recognise assets even when the benefit may not eventuate. For instance, inventory may remain unsold, and Accounts Receivable may not pay, but because they both represent *potential* economic benefits, both may be recognised as assets.

Controlled by the entity

Further, only those items that are controlled by the entity can be defined as assets. The definition explains that what makes these items assets for a specific business is not ownership, but instead:

- the ability to *determine how and when the item is used* (such as how and when the cash in the bank account will be spent, when Accounts Receivable are expected to pay or how the vehicles will be used) and/or
- the *right to access the benefits* (such as the cash from inventory or Accounts Receivable, or the use of a vehicle or premises).

Although a business will own many of its assets, ownership itself is not a necessary condition for an item to be classified as a business asset: the definition actually makes no reference to 'ownership' at all. *Control* is much broader than *ownership*, so the firm's assets will include, but not be restricted to, what it owns.

In addition, the item must fall under the control of *the entity* – the business. The owner's home cannot be classified as a business asset because it is not under business control. Following the Accounting entity assumption, the owner's home is under the control of the owner, who is considered to be a separate Accounting entity from the business.

Study tip

For an item to be recognised as an asset, it must meet each part of the definition; an item that fails to meet any of these requirements cannot be considered to be an asset.

Past event

This element of the definition helps to distinguish between items that *are already* assets and items that *may be* assets in the future but should not be recognised as assets yet. For instance, vehicles currently under business control become assets as a result of a past event, namely their purchase. By contrast, inventory that has been ordered but not yet delivered, invoiced or paid for cannot be recognised as an asset as there is no past event to transfer control from the supplier to the acquiring business.

Liabilities

Many people use the term 'liability' to refer to a debt or perhaps even a risk, but this is more of a popular appropriation (a 'borrowing') of the term rather than a definition.

In Accounting, a **liability** is a present obligation of an entity to transfer an economic resource as a result of past events. This may seem like a lot of jargon, but broken into its components it is easier to understand.

liability

a present obligation of an entity to transfer an economic resource as a result of past events

Present obligation

If the business has a legal responsibility (or *obligation*) to settle a debt, then this debt is likely to be a liability. In the case of a bank overdraft or mortgage, the contract with the lender means the business is obliged to repay the amount owing. Similarly, a business that has taken cash from a customer as a deposit is legally obliged to supply the goods.

Contrast these items with the amount that the business expects to pay next year for advertising. This cannot be reported as a liability, as at present there is no obligation to pay. The obligation will only occur once the firm has signed the contract or the advertising itself has been provided.

However, a present obligation does have consequences for the future. If the obligation is still 'present', it means it must have not yet been 'met' or 'settled', meaning the business is still obliged to take action (to settle the debt). The Going concern assumption allows businesses to report as liabilities these amounts that are due to be settled at some time in the future.

Transfer an economic resource

In many cases, the economic resource to be transferred will be cash, and the transfer will occur when the business pays its debts. This would certainly be the case for amounts owed to Accounts Payable and banks for loans.

However, this is not always the case, as there may be an alternative economic resource that must be transferred. A business that has received cash in advance for goods yet to be supplied is obliged to transfer the goods. In this case, the resource is the goods rather than cash that must be transferred to meet its obligation and settle its debt.

Past event

As with assets, this aspect of the definition helps to distinguish between items that are already liabilities and items that should not be recognised as liabilities yet. An entity has a present obligation as a result of a past event only if it has already received the economic benefits, or conducted the activities, that establish its obligation.

Owner's equity

owner's equity
the residual interest in
the assets of an entity
after the deduction of its
liabilities

Owner's equity is the residual interest in the assets of the entity after the deduction of its liabilities. In effect, owner's equity is what is left over *for the owner* once a firm has met all its liabilities. Because the owner and the firm are considered to be separate entities, it can also be described as the amount the business 'owes the owner'.

Given that owner's equity is derived by deducting liabilities from assets, it is fair to say that owner's equity is a function of, and depends on, liabilities and assets. It is thus the element that makes the Accounting equation balance (but more about this in Chapter 2).

Revenues and expenses

Whereas assets, liabilities and owner's equity represent *balances* – amounts at a particular point in time – revenues and expenses represent *flows*: the amounts by which those balances have increased or decreased during a period.

Revenues

Revenues are increases in assets or decreases in liabilities that result in increases in owner's equity, other than those relating to contributions from the owner.

Applying the Accounting entity assumption, inflows from capital contributions are excluded because they occur not due to the activities of the *business*, but rather the actions of the *owner*. This means revenue represents the increases in owner's equity that occur *through business activities*.

In most cases revenue will represent what the business has gained from the goods it has sold or the work it has done. But there are other forms of revenue, and although revenue may take the form of cash, this is not a requirement. Credit sales would be revenue in the form of an increase in an asset other than cash (namely, Accounts Receivable), whereas discount revenue would take the form of a decrease in a liability (Accounts Payable). The key is that a revenue must increase owner's equity, but not as a consequence of the owner making a contribution.

revenue

increases in assets or decreases in liabilities that result in increases in owner's equity, other than those relating to contributions from the owner

Expenses

Expenses are decreases in assets or increases in liabilities that result in decreases in owner's equity, other than those relating to distributions to the owner.

As with revenues, the application of the Accounting entity assumption means distributions to the owner (Drawings) are excluded because they don't contribute to the firm's ability to carry out its trading activities and do not affect its ability to earn revenue or profit.

Expenses then represent the decreases in owner's equity that occur through business activities or, put simply, what a business has 'consumed' (or 'used up') to earn its revenue. Even though many expenses are measured by what is paid in cash, this is not a requirement. Inventory loss due to theft would be an expense in the form of a decrease in assets (Inventory), whereas wages expense could take the form of an increase in liabilities (Accrued wages) if it were yet to be paid. The key here is that an expense must decrease owner's equity, but not as a consequence of the owner making a withdrawal from the business.

expense

decreases in assets or increases in liabilities that result in decreases in owner's equity, other than those relating to distributions to the owner

Study tip

Compare the definitions of revenues and expenses: 'opposites' can be used to remember these definitions.



Recognising revenues and expenses

Under the Accrual basis assumption, items are recognised when they meet the definitions (as previously explained), and while the assumption applies to all the Elements of the reports – assets, liabilities, owner's equity, revenues and expenses – it is in relation to revenues and expenses that its effects are most notable.

In the case of revenues, the definition is satisfied when the increase in assets (or decrease in liabilities) and increase in owner's equity occurs, so it is at this point that the revenue is recognised as *earned*. The same principle applies to expenses, which are recognised as *incurred* when the decrease in assets (or increase in liabilities) and decrease in owner's equity occurs. As a result, applying the Accrual basis assumption to revenues and expenses means that profit is calculated as revenues *earned* less expenses *incurred* for the current period.

Note that in neither definition is the receipt or payment of cash required, so profit under the Accrual basis assumption cannot be said to be a measure of cash received and paid. Indeed, in most cases a firm's profit (measured by comparing its revenue *earned* and expenses *incurred*) will be different to its cash performance (measured by comparing cash received and paid). Both profit and cash still require attention and management, and sometimes strategies will affect both, but they are different measures of performance and must be seen and managed with this in mind.

Study tip

Understanding the difference between profit and cash is important to decision-making and so is a recurring theme within this text. You may not understand it in full until the end of the course!



Review questions 1.6

- 1 **Define** the following items, and **list** three examples of each (except owner's equity):
 - asset
 - liability
 - owner's equity
 - revenue
 - expense.
- 2 **State** one reason why 'Wages paid' is **not** considered to be an asset.
- 3 **State** one reason why the amount expected to be paid for advertising for next year is **not** considered to be a liability.
- 4 **Explain** why a capital contribution is **not** considered to be revenue.
- 5 **Explain** why Drawings is **not** considered to be an expense.
- 6 **Explain** how the Accrual basis assumption affects the recognition and reporting of revenues and expenses.



Where have we been?

- The purpose of Accounting is to provide financial information to assist decision-making.
- The Accounting process involves collecting source documents, recording financial data and then reporting financial information, and subsequently advising the owner on an appropriate course of action.
- The three general-purpose Accounting reports are the Cash Flow Statement, the Income Statement and the Balance Sheet.
- Accounting assumptions are the generally accepted rules governing the way Accounting information is generated, and include:
 - Accounting entity assumption
 - Going concern assumption
 - Period assumption
 - Accrual basis assumption.
- Qualitative characteristics are the qualities we would like our financial reports to possess, and include:
 - *Relevance*
 - *Faithful representation*
 - *Verifiability*
 - *Comparability*
 - *Timeliness*
 - *Understandability.*
- The Elements of the Accounting reports are assets, liabilities, owner's equity, revenue and expenses.



Exercises



Exercise 1.1

Accounting assumptions

In each of the following situations, **identify** the appropriate Accounting assumption and **explain** how it should be applied.

- Rhonda recorded the payment of her daughter's orthodontist's fees as a business expense.
- Falcon Cosmetics has decided to report in its Balance Sheet the amounts it still owes for goods purchased last month.
- Because some sales contracts cover a long period of time, Roberts Records only prepares financial reports every two years.
- Mason Manufacturing sold goods on credit but decided to wait until the cash was received before recording the sales as revenue.
- Richmond Spare Parts values its assets at what they would realise if they were all sold on the day the reports are prepared.
- Casee is the owner of CG Industries and paid for petrol for her business car using her own cash.
- Galvin Plastics received cash as a deposit on a sale of goods but did not report it as revenue.



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Exercise 1.2

Qualitative characteristics

In each of the following situations, **identify** the appropriate Qualitative characteristic and **explain** how it should be applied.

- Alice took \$350 from the cash register of her business to purchase new shoes for her son.
- Henry's Hats was informed by a real estate agent that its business premise is currently worth \$780 000, but decided to report it in the Balance Sheet at its original purchase price.
- Charlie Cool sells sunglasses and in 2029 reported every month. In 2030 it provided sales updates every six months.
- Benelle Beauty Products estimated its expenditure on electricity to be \$5 200 and reported this figure in its financial statements.
- In August 2030, Frank Howard received information that inventory losses for January 2030 were \$35 000.
- Lucas Christopher is an Accountant who presents Accounting information using only technical language to increase its specificity and accuracy.
- Jean's Jeans has reported its inventory at its likely selling price.
- Tom's BBQs has included in its revenue for 2029 the value of sales made on credit during the year but not due to be received until 2030.



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Exercise 1.3

Accounting assumptions and Qualitative characteristics

During December 2030, Bon Wilhelm paid for a family holiday from the business's bank account. This transaction was treated as a business expense, with Bon arguing, 'It's my business; it's my money.'

Required

- Referring to one Accounting assumption, **explain** why this transaction should have been recorded as Drawings.
- Explain** how Wilhelm's decision will undermine the *Relevance* of the financial reports.



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Exercise 1.4

Qualitative characteristics

In October 2030, Mark Larkin, the owner of Larkin Lighting, decided that the firm's inventory should be valued at its selling price rather than its cost price because, according to Mark, 'That's what it is actually worth.'

Required

- Referring to *Verifiability*, **explain** why the inventory must be valued at its cost price.
- Explain** how valuing inventory at its selling price will undermine the ability of the reports to provide a *Faithful representation* of the firm's position.



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Exercise 1.5

Qualitative characteristics

In an attempt to satisfy *Comparability*, Coolick Refrigerators always reports the same figure for its Depreciation of Equipment expense.

Required

- Explain** how the use of consistent Accounting methods supports *Comparability*.
- Referring to *Comparability*, **explain** why Coolick Refrigerators is incorrect in always reporting the same figure for its Depreciation of Equipment expense.



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Exercise 1.6

Accounting assumptions and Qualitative characteristics

The owner of Frosty Fridges believes its market value is shown in the Balance Sheet as the difference between its total assets and total liabilities.

Required

- Referring to one Accounting assumption, **explain** why the market value of Frosty Fridges' assets will **not** be shown in its Balance Sheet.
- Referring to *Relevance* and *Faithful representation*, **explain** why the market value of Frosty Fridges will **not** be shown in its Balance Sheet.



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Exercise 1.7

Accounting assumptions and Qualitative characteristics

The Accounting department of Plastic Cups Emporium recently issued a report to a meeting of the employees of the firm, complete with various financial statements and financial ratios. Although the employees had a reasonable understanding of the firm's business operations, none had specific knowledge of Accounting.

Required

- Referring to one Qualitative characteristic, **explain** why the Accounting reports will **not** fulfil their intended function.
- Explain** one reason why the Accounting department has an ethical responsibility to provide appropriate financial reports to the employees of Plastic Cups Emporium.
- Explain** one technique the Accounting department could employ to improve the appropriateness of its financial reports.

Ethical considerations



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Exercise 1.8

Accounting assumptions and Qualitative characteristics

Erica Carr's business has been sued for false advertising, and her solicitor has indicated that she is likely to lose the forthcoming court case and be liable to pay damages. Erica has decided to not disclose the damages in the Income Statement.

Required

- Referring to one Qualitative characteristic, **explain** why Erica may wish to disclose the damages in the reports.
- Suggest** one reason why Erica may choose to **not** report the damages in the Income Statement. **Identify** one Qualitative characteristic to support your answer. **Justify** your response.
- Explain** how a lack of *Timeliness* in the availability of information might affect the *Relevance* of the reports for this business.
- Discuss** why this situation might present an ethical dilemma for Erica and her Accountant.

Ethical considerations



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Exercise 1.9

Accounting assumptions, Qualitative characteristics and Elements of the reports

In October 2029, Rad Magazines successfully completed a marketing campaign where readers pay in advance for magazines to be delivered in 2030. The owner wants to record all the cash received as revenue for 2029.

Required

- Referring to one Accounting assumption, **explain** why the cash received should **not** be recorded as revenue for 2029.
- Identify** the Qualitative characteristic that will be undermined if the cash received is reported as revenue for 2029. **Justify** your answer.
- Referring to the definitions of the Elements of the reports, **explain** why the cash received must **not** be reported as revenue in 2029.



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Exercise 1.10

Elements of the reports

Using the definitions of the Elements of the reports, **identify** how each item below should be classified. **Justify** your choice with reference to an appropriate definition.

- Vehicle
- Cash sales
- Loan – principal
- Interest on loan
- Owner's capital
- Amounts owing from credit sales
- Wages incurred
- Wages owing



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Exercise 1.11

Elements of the reports

Hard Utes specialises in the sale of utility vehicles. On 31 August 2030, the firm purchased a new vehicle worth \$35 000 using a loan from HQ Finance.

Required

- Explain** the difference between an asset and an expense.
- Explain** how the Going concern assumption affects whether the vehicle is reported as an asset or expense in the reports of Hard Utes.
- Explain** one circumstance in which the cost of the new vehicle would be reported as a current asset in the reports of Hard Utes.
- Explain** one circumstance in which the cost of the new vehicle would be reported as a non-current asset in the reports of Hard Utes.
- Explain** one circumstance in which the cost of the vehicle would be reported as an expense in the reports of Hard Utes.



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Exercise 1.12

Goodwill

Over the last couple of years, Elaine has built up a loyal clientele for her fashion boutique, Fine Fashions. These customers buy from Elaine on a regular basis because they trust her judgement and expertise, and she knows this 'goodwill' is worth something. Elaine also knows she could make a higher profit without losing her loyal customer base by maintaining the same selling prices but switching to cheaper, imported clothing made by suppliers who treat their employees poorly and do not pay them fairly.

Required

- Discuss** whether Elaine should recognise this 'goodwill' as an asset. In your answer refer to at least two Qualitative characteristics.
- Discuss** what action, if any, Elaine should take in relation to the products she sells.



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Ethical considerations

Chapter 2

The Accounting equation



0	5,000
0	21,500
2	54,144
42	80,64
95	\$1,332,75

Learning intentions

After completing this chapter, you should be able to:

- **define** and **identify** assets, liabilities and owner's equity
- **explain** the relationship between the Elements of the Accounting equation
- **calculate** owner's equity using the Accounting equation
- **explain** the relationship between the Accounting equation and the Balance Sheet
- **define** and **identify** current and non-current items
- **prepare** a fully classified Balance Sheet
- **apply** the rules of double-entry Accounting
- **analyse** how transactions affect the Accounting equation and the Balance Sheet.

Key terms

After completing this chapter, you should be familiar with the following terms:

- equities
- Accounting equation
- Balance Sheet
- classification
- current asset
- non-current asset
- current liability
- non-current liability
- double-entry Accounting.

Balance Sheet

Assets

Current A



2.1 Assets, liabilities and owner's equity

The most obvious place to start an assessment of any business is with its current situation or, if you like, its current financial position. At its most basic, this assessment will consider the economic resources it controls – its assets – and the obligations it has – its liabilities. By preparing a Balance Sheet, which details these assets and liabilities, an owner can assess the owner's equity – the net worth of the owner's investment in the business.

Let's start by refreshing our understanding of how assets, liabilities and owner's equity are defined in Accounting terms.

Assets

As was explained in Chapter 1, assets are defined as present economic resources controlled by an entity as a result of past events.

A common list of assets for a trading business might include the following items:

- *Bank* – cash held in the business' bank account
- *Accounts Receivable* – the amounts owed to the business as a result of sales made on credit
- *Inventory* – inventory purchased and held for resale to customers
- *Fixtures and fittings* – items used in the business premises, such as shelving or window coverings
- *Vehicles* – cars, trucks and vans used for business purposes
- *Premises* – the building(s) from which the business activity is conducted.

Liabilities

Liabilities are present obligations of an entity to transfer an economic resource as a result of past events.

A common list of liabilities might include:

- *Bank overdraft* – the amount owed to the bank when a business spends more than is currently in its bank account
- *Accounts Payable* – the amounts owed by the business for inventory it has bought on credit
- *Loan* – an amount that is borrowed from a bank or other financial institution that must be repaid at some time in the future
- *Mortgage* – a specific type of loan that is secured against property.

Thinking of assets as 'what the firm owns' and liabilities as 'what the firm owes' is fine as a starting point, but such simplistic definitions will not suffice in more complex Accounting situations (including the exam!). The more sophisticated definitions (as listed above and described in detail in Chapter 1) must be applied to determine accurately and conclusively whether an item is an asset or a liability.

Owner's equity

Owner's equity is the residual interest in the assets of the entity after the deduction of its liabilities. Because the value of the firm's assets must exceed its liabilities, there will be an amount 'left over'. Applying the Accounting entity assumption, which states the business is separate from the owner and other businesses, this leftover amount is then 'owed' to the owner, so owner's equity is sometimes referred to as the 'amount owed to the owner'.

What liabilities and owner's equity have in common is that they are both **equities** or claims on the assets of the business. That is, liabilities are what the business owes to *external parties*, while owner's equity is what the business owes to the *owner*. Both types of claim must be funded from the business's assets.

equities

claims on the assets of a business, consisting of both liabilities and owner's equity

The Accounting equation

The relationship between assets, liabilities and owner's equity is described by the **Accounting equation**.

$$\text{Assets} = \text{Liabilities} + \text{Owner's equity}$$

Accounting equation

the rule that states that assets must always equal liabilities plus owner's equity

The Accounting equation is as important to Accounting as Einstein's theories are to physics, and it is subject to one immutable law: *it must always balance*. That is, assets must always equal liabilities plus owner's equity. It is not possible for the equation to be out of balance.

For instance, if a firm has assets of \$820 000 and liabilities worth \$685 000, its owner's equity *must* be the residual (that is, what is left over): \$135 000. It is not possible for owner's equity to equal an amount greater than this, because there would be insufficient assets to fund the claim.

On the other hand, it is not possible for owner's equity to equal an amount *less* than this. Of the assets of \$820 000, if liabilities claimed \$685 000, and the owner claimed only \$120 000, that would leave an amount of \$15 000 that has not been claimed by liabilities nor by the owner (and no one is suggesting it should just be given away!). It is not possible for an amount to remain unclaimed, proving that the Accounting equation must always balance.

Indeed, it is the fact that owner's equity is defined as the 'residual' – the amount left over – that means that the Accounting equation will always balance.

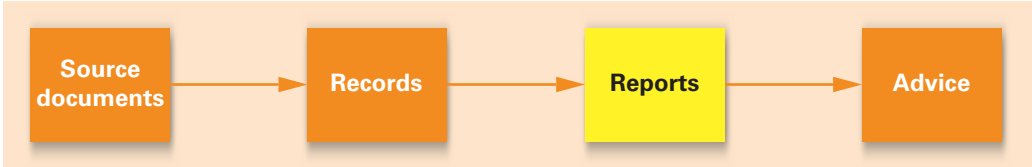


Review questions 2.1

- 1 **Define** the term 'asset'.
- 2 **List** three assets that would be found in the Balance Sheet of a typical trading firm.
- 3 **Define** the term 'liability'.
- 4 **List** three liabilities that would be found in the Balance Sheet of a typical trading firm.
- 5 **Define** the term 'owner's equity'.
- 6 Referring to one Accounting assumption, **explain** how a business can 'owe its owner'.
- 7 **Define** the term 'equities'.
- 8 **State** the Accounting equation and **explain** what makes it always balance.



2.2 The Balance Sheet



Balance Sheet
an Accounting report that details the business's assets, liabilities and owner's equity at a particular point in time

Information about a firm's Accounting equation is communicated to the owner by the preparation of an Accounting report called a **Balance Sheet**, which details the firm's assets, liabilities and owner's equity at a particular point in time and thus allows the owner to assess the firm's current financial position.

Indeed, the layout of a Balance Sheet is a direct reflection of the firm's Accounting equation, as is shown in Figure 2.1:

Figure 2.1 The Accounting equation and the Balance Sheet

Accounting equation					
Assets = Liabilities + Owner's equity					
Balance Sheet					
Assets			Liabilities		
			plus Owner's equity		
Total Assets			Total Equities		

A simple Balance Sheet for a trading firm may look like the one shown in Figure 2.2:

Figure 2.2 Balance Sheet

MORGAN'S MERCHANDISE					
Balance Sheet as at 30 June 2030					
	\$	\$		\$	\$
Assets			Liabilities		
Bank		50 000	Accounts Payable	60 000	
Inventory		340 000	Loan – MHB Bank	360 000	420 000
Accounts Receivable		120 000	Owner's equity		
Vehicles		90 000	Capital – Morgan		180 000
Total Assets		600 000	Total Equities		600 000

As with every Accounting report, the title of the Balance Sheet states *who* it has been prepared for (the business, Morgan's Merchandise), *what* kind of report it is (Balance Sheet) and *when* it was prepared (30 June 2030). Because businesses engage in a number of transactions every day, and every transaction changes the Balance Sheet, the Balance Sheet is only ever accurate on the day it is prepared. Thus, the title says 'as at' a particular date.

Reflecting the Accounting equation, the Balance Sheet lists each asset on the left-hand side and each liability and owner's equity on the right-hand side. This listing of each asset and liability upholds *Relevance*, as the nature and amount of each item is capable of making a difference to decision-making. For example, the owner can identify which assets make up the Total Assets figure and how they can be used to generate both cash and profit. Each of the amounts should also be *Verifiable* (and checkable by reference to

a source document) to ensure that the Balance Sheet provides a *Faithful representation* of the firm's financial position that is accurate, free from error and neutral (without bias).

Further, because the Accounting equation balances, so too must the Balance Sheet. In this case, the Total Assets (all economic resources controlled by the business) of \$600 000 equals the Total Equities (all claims on those resources, i.e. liabilities plus owner's equity).

Note also how the term 'Owner's equity' is used as a heading. The actual item representing the owner's claim is known as 'Capital', with the name of the owner listed next to it. Any profits earned by the business – and thus increasing what is 'owed' to the owner – would also be listed under the heading of 'Owner's equity'.



Review questions 2.2

- 1 **Explain** the purpose of preparing a Balance Sheet.
- 2 **Explain** the relationship between the Accounting equation and the Balance Sheet.
- 3 **State** the three pieces of information that must be present in the title of every Accounting report.
- 4 **Explain** why the Balance Sheet is titled 'as at' a particular date.
- 5 **Explain** how the Balance Sheet provides information that is:
 - *Relevant* to the firm's financial position
 - a *Faithful representation* of the firm's financial position.



2.3 Classification in the Balance Sheet

Given that Accounting exists to provide financial information to assist decision-making, Accountants are always seeking ways to improve the usefulness of the information they provide. One simple but very effective way of improving the usefulness of the Balance Sheet is by classifying the information it contains. **Classification** involves grouping together items that have some common characteristic. In relation to the Balance Sheet, the assets and liabilities have already been grouped together, but within these groupings the items can be classified according to whether they are *current* or *non-current*.

Current and non-current assets

All assets are defined as 'present economic resources', but an assessment of *when* each resource will bring economic benefits determines how they should be classified.

Assets, like cash and other items, that are held primarily for sale or trading or are reasonably expected to be converted to cash, sold or consumed *within 12 months* (that is, are expected to provide an economic benefit only in the next 12 months) are classified as **current assets**. Common current assets include the cash in the firm's Bank account, the Inventory it is holding for resale and the amounts owed to it as Accounts Receivable.

Any assets that are expected to provide an economic benefit *for more than 12 months* (such as business Premises, Vehicles or Shop fittings) should be classified as **non-current assets**.

Current and non-current liabilities

The same '12-month' test applies to liabilities. **Current liabilities** are obligations that are reasonably expected to be settled *within the next 12 months*, such as amounts owing to Accounts Payable and Loans due in the next year. By contrast, **non-current liabilities** are those obligations that must be met some time *in more than 12 months*. Longer-term loans, such as Mortgages, are the most common non-current liabilities.

classification

grouping together items that have some common characteristic

current asset

a present economic resource controlled by an entity as a result of past events that is reasonably expected to be converted to cash, sold or consumed within the next 12 months

non-current asset

a present economic resource controlled by an entity as a result of past events that is not held for resale and is reasonably expected to be used for more than the next 12 months

current liability

a present obligation of an entity to transfer an economic resource as a result of past events that is reasonably expected to be settled within 12 months

non-current liability

a present obligation of an entity to transfer an economic resource as a result of past events that is not required to be settled within 12 months

Particular items

Bank / Bank overdraft

While cash in the bank is a current asset, should the account fall into overdraft, it would change to become a current liability: it is the same item, but it would be classified differently depending on whether its balance was positive ('Bank', current asset) or negative ('Bank overdraft', current liability).

A bank overdraft is classified as a current liability, not so much because it *will* be met in the next 12 months as because it *can be*. That is, although it is unlikely to occur, it is possible that an overdraft could be called in (for repayment) on very short notice, making it a current liability.

GST payable / receivable

Similar to Bank, a GST balance can be classified as either a current asset or a current liability, depending on its balance. When a business charges its customers GST on its sales, this creates a liability to the Australian Taxation Office (ATO) that must be reported as a current liability, sometimes called 'GST payable'. However, any GST the business is charged by its suppliers on its purchases (of inventory and other items) decreases that liability, and if this GST on purchases is greater than the GST on its sales, the business could have a current asset called 'GST receivable'.

Study tip

The operation of the GST system is explained in detail in Chapter 4.

Loans

When classifying loans, some of the amount owing may be current and some non-current. For example, with a loan such as a mortgage, the lender (usually a bank) would expect the borrower (the business) to make gradual repayments off the principal rather than repay one large amount at the end of the loan. In this case, the amount that is due for repayment in the next 12 months would be classified as a current liability, with the remainder (which does not have to be repaid until after 12 months) classified as a non-current liability. As a result, the amount owing on a long-term loan may need to be split between current and non-current liabilities.

Classified Balance Sheet

If we take the Balance Sheet shown earlier in this chapter and classify its contents, the result would appear as is shown in Figure 2.3:

Figure 2.3 Classified Balance Sheet

MORGAN'S MERCHANDISE Balance Sheet as at 30 June 2030					
	\$	\$		\$	\$
Current Assets			Current Liabilities		
Bank	50 000		Accounts Payable	60 000	
Inventory	340 000		Loan – MHB Bank	24 000	84 000
Accounts Receivable	120 000	510 000	Non-Current Liabilities		
Non-Current Assets			Loan – MHB Bank		336 000
Vehicles		90 000	Owner's equity		
			Capital – Morgan		180 000
Total Assets		600 000	Total Equities		600 000

In this classified version of the Balance Sheet, assets and liabilities have been further classified as current or non-current. Note that different columns have been used for reporting the amounts, with the left-hand column (on each side of the report) used for listing individual amounts, and the right-hand column showing the total of each classification. This is a simple mechanism for improving the layout of the report and making it more user-friendly and *Understandable*.

Also, the \$360 000 owing on the Loan – MHB Bank has been split between **current** and **non-current** liabilities: \$24 000 must be repaid in the **next 12 months**, with the remaining \$336 000 due for repayment some time after that.

Study tip

Check the dates and other information about when a loan has to be repaid; this is the key to identifying whether it is current or non-current (or both).

Uses of the classified Balance Sheet

With current and non-current items identified, the Balance Sheet is now more *Understandable* and is more helpful for decision-making. For example, by identifying the total amount of current liabilities, the report highlights the debts that must be repaid in the next 12 months. The owner could then go further by comparing the firm's current liabilities against its current assets to assess the firm's ability to meet those short-term debts. With this information, the owner would be better equipped to make decisions about future cash needs or borrowings. (This is, in effect, an assessment of the firm's liquidity by calculating its Working Capital Ratio, but we will leave this until Chapter 19).



Review questions 2.3

- 1 **Distinguish** between current assets and non-current assets.
- 2 **List** three current assets and three non-current assets.
- 3 **Distinguish** between current liabilities and non-current liabilities.
- 4 **List** three current liabilities.
- 5 **Explain** how a mortgage should be classified in the Balance Sheet.
- 6 Referring to one Qualitative characteristic, **explain** one benefit of classifying the Balance Sheet.



2.4 Double-entry Accounting

Although the Balance Sheet states a firm's financial position at a particular point in time, this position is not static: it will change after every transaction. For example, if the business buys Inventory on credit, its assets (Inventory) will increase, but so will its liabilities (Accounts Payable); if it pays cash for new carpet, its Bank balance will decrease, but its Shop fittings will increase, and its GST balance will change, too.

Specifically, when a business exchanges goods and/or services with another entity, at least two items will change in its Accounting equation and, therefore, its Balance Sheet. This is true of every transaction that a firm could have. This means the Accounting equation and the Balance Sheet will need to be rewritten after every transaction. At the same time, the Accounting equation must always balance, so even after each transaction has been recorded, the Accounting equation – and therefore the Balance Sheet – must still balance.

These two rules form the basis of what is known as **double-entry Accounting**.

Rules of double-entry Accounting

- 1 Each transaction is recorded as a change to at least two items in the Accounting equation.
- 2 After recording a transaction, the Accounting equation must always balance.

double-entry Accounting

a system that records at least two effects on the Accounting equation as a result of each transaction

Example

Imelda's Shoe Shop has presented the following transactions:

- 1 Imelda contributed \$20 000 to establish a business bank account and commence operations as 'Imelda's Shoe Shop'.
- 2 Purchased inventory on credit from Milano Leather Products for \$45 000 (plus \$4 500 GST).
- 3 Paid \$12 000 (plus GST) to purchase new shop fittings.

**Video 2.1**

Transactions and
the Accounting
equation

1 Imelda contributed \$20 000 to establish a business bank account and commence operations as 'Imelda's Shoe Shop'.

As a result of this transaction, the business now has \$20 000 in its **Bank** account: an increase in its assets of **\$20 000**. In addition, because that cash came from the owner (who is assumed to be a separate Accounting entity), the **Owner's equity** has increased by **\$20 000**.

The Accounting equation for Imelda's Shoe Shop after this transaction is shown in Figure 2.4:

Figure 2.4 Accounting equation 1

	\$	\$		\$	\$
Assets			Liabilities		
Bank		20 000			
			Owner's equity		
			Capital – Imelda		20 000
Total Assets		20 000	Total Equities		20 000

Note how the transaction has changed two items – **Bank** (asset) and **Capital** (owner's equity) – both of which have increased by **\$20 000**. As a result, the Accounting equation still balances.

2 Purchased inventory on credit from Milano Leather Products for \$45 000 plus \$4 500 GST

This time it is not Bank but a different asset – **Inventory** – that increases, in this case by **\$45 000**. Also increasing is a new asset called **GST receivable**, with the **\$4 500** GST on the inventory representing the amount Imelda's Shoe Shop can claim back from the ATO.

On the other side of the Accounting equation, a liability called **Accounts Payable** is created to show the total of **\$49 500** owed to Milano Leather Products (for both the Inventory and the GST).

The Accounting equation for Imelda's Shoe Shop after transaction 2 is shown in Figure 2.5:

Figure 2.5 Accounting equation 2

	\$	\$		\$	\$
Assets			Liabilities		
Bank		20 000	Accounts Payable		49 500
Inventory		45 000	Owner's equity		
GST Receivable		4 500	Capital – Imelda		20 000
Total Assets		69 500	Total Equities		69 500

While there is no change to Bank, the new assets – **Inventory** and **GST receivable** – increase the assets to \$69 500. On the other side, **Accounts Payable** increases the equities to the same amount and, once again, the Accounting equation balances.

3 Paid \$12 000 plus GST to purchase new shop fittings.

This transaction creates a third asset – **Shop fittings** – worth \$12 000 and increases **GST receivable** by a further \$1 200 but in the process decreases **Bank** by the total (\$13 200) paid. This changes the amounts of the individual assets without changing the Total Assets figure.

The Accounting equation for Imelda's Shoe Shop after transaction 3 is shown in Figure 2.6:

Figure 2.6 Accounting equation 3

	\$	\$		\$	\$
Assets			Liabilities		
Bank		6 800	Accounts Payable		49 500
Inventory		45 000	Owner's equity		
GST Receivable		5 700	Capital – Imelda		20 000
Shop fittings		12 000			
Total Assets		69 500	Total Equities		69 500

In this example, there is no change on the Equities side of the equation, proving that although at least two items must change, the changes can be on the same side of the Accounting equation, provided that the result still balances.



Review questions 2.4

- 1 **Explain** why the Accounting equation must be redrawn after every transaction.
- 2 **State** the two rules of double-entry Accounting.



Where have we been?

- Assets are present economic resources controlled by the entity as a result of past events.
- Liabilities are present obligations of the entity to transfer an economic resource as a result of past events.
- Owner's equity is the residual interest in the assets of the entity after the deduction of its liabilities.
- The Accounting equation is 'Assets = Liabilities + Owner's equity', and it must always balance.
- The Balance Sheet is an Accounting report that details the business's assets, liabilities and owner's equity at a particular point in time and is a reflection of the firm's Accounting equation.
- Assets are classified as current if they are reasonably expected to be converted to cash, sold or consumed within the next 12 months. Assets that are not held for resale and are reasonably expected to be used for more than the next 12 months are classified as non-current.
- Liabilities are classified as current if it is reasonably expected they will be settled within 12 months. Liabilities that are not required to be settled within 12 months are classified as non-current.
- Double-entry accounting means each and every transaction will have at least two effects on the Accounting equation, and after these effects have been recorded the Accounting equation must balance.

Exercises

Please note: asterisks indicate that an answer for that question is available in the Selected Answers section at the end of this book.



Exercise 2.1
Classifying items

Classify each of the following items as assets or liabilities, and as current or non-current:

- Accounts Payable
- Cash on hand
- Accounts Receivable
- Mortgage (for both this year and the remainder)
- Inventory
- Wages owing to employees
- GST payable
- Bank overdraft
- Capital
- Equipment
- Premises
- Vehicles
- Rent paid in advance



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Exercise 2.2
Balance Sheet

Mark Florence is the owner of Ponte Jewellers and has provided the following list of the firm's assets and liabilities as at 31 May 2030:

Inventory	\$62 000
Accounts Payable	3 400
Loan – NAB (repayable 2030)	30 000
Shop fittings	12 000
Bank	5 900
Accounts Receivable	8 600
Office equipment	4 100



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Required

- a. **Define** the term 'equities'.
- b. **Calculate** Capital as at 31 May 2030.
- *c. **Prepare** a classified Balance Sheet for Ponte Jewellers as at 31 May 2030.
- d. Referring to your answer to part c, **explain** your classification of Accounts Payable.
- e. **Explain** how including 'Bank' in the Balance Sheet upholds *Relevance*.



Exercise 2.3
Balance Sheet

Greg Miller owns Greg's Gardening Supplies and has provided the following information as at 31 January 2030:

Term deposit (matures 2030)	8 000	Bank	700
Accounts Receivable	2 490	Accounts Payable	1 400
Wages owing	600	Motor vehicle	22 000
Inventory	50 000	Loan – ANZ (repayable \$2 000 p.a.)	36 000



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Required

- a. **Calculate** Capital as at 31 January 2030.
- *b. **Prepare** a classified Balance Sheet for Greg's Gardening Supplies as at 31 January 2030.
- c. Referring to your answer to part b, **explain** your treatment of Inventory.
- d. The motor vehicle is three years old, and the owner has estimated its current value at \$15 200 rather than \$22 000 as listed in the Balance Sheet. **Explain** how the motor vehicle should be valued, referring to at least two Qualitative characteristics in your answer.



Exercise 2.4

Balance Sheet

Laura Destio owns Mallacoota Wines and has provided the following information as at 30 June 2030:

Bank overdraft	2 500	Shelving	43 000
Inventory	12 000	Mortgage	60 000
Accounts Payable	5 000	Accounts Receivable	10 500
Premises	100 000	GST payable	1 700

Note: The mortgage is repayable in quarterly instalments of \$1 500.

Required

- *a. **Prepare** a classified Balance Sheet for Mallacoota Wines as at 30 June 2030.
- b. **Explain** why a Balance Sheet is titled 'as at'.
- c. Referring to your answer to part a, **explain** your treatment of:
 - Accounts Receivable
 - Bank overdraft.
- d. **State** two external users who might be interested in this Balance Sheet.



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Exercise 2.5

Transactions and the Accounting equation

State the effect on the Accounting equation of each of the following transactions:

- a. A loan for \$5 000 was received from ANZ Bank
- b. Office furniture worth \$19 000 (plus GST) was purchased with cash
- c. \$450 was paid to Accounts Payable
- d. The owner contributed to the business a vehicle worth \$25 000
- e. \$1 000 was paid off the loan principal
- f. Inventory worth \$3 000 (plus GST) was purchased on credit from HP Enterprises
- g. \$800 was received from an Account Receivable



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**Exercise 2.6****Transactions and the Balance Sheet**

As at 31 March 2030, the assets and equities of Pete's Paint Emporium were as follows:

	\$		\$
Assets		Equities	
Accounts Receivable	8 000	Accounts Payable	9 000
Bank	2 300	Wages owing	2 000
Delivery van	25 000	GST payable	1 500
Fixtures and fittings	18 000	Capital – Pete	?
Inventory	24 000		
Total Assets	77 300	Total Equities	77 300

In the first week of April 2030, the following transactions occurred:

- Apr. 1 Paid \$3 000 to Accounts Payable
- 2 Took out a loan from NAB to purchase another van for \$30 800 (including GST). The loan is to be repaid in monthly instalments of \$1 000, commencing in May 2030.
- 3 Received \$2 400 from Accounts Receivable
- 4 Pete withdrew \$1 500 worth of paint for his own purposes
- 5 Paid the wages owing
- 6 Pete contributed to the business his personal computer. Pete had paid \$4 600 but on this date its value was \$4 000

Required

- a. **Calculate** Capital as at 31 March 2030.
- b. **Explain** why the computer contributed on 6 April 2030 must not be valued at \$4 600. In your answer refer to one Accounting assumption and one Qualitative characteristic.
- c. **Prepare** a table to show the effect of each transaction on the Balance Sheet of Pete's Paint Emporium.
- *d. **Prepare** a classified Balance Sheet for Pete's Paint Emporium as at 6 April 2030.



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**Exercise 2.7****Transactions and the Balance Sheet**

As at 30 September 2030, the assets and equities of Sam Booker Grocery were as follows:

	\$		\$
Assets		Equities	
Accounts Receivable	3 000	Bank overdraft	2 500
Fixtures and fittings	15 000	Accounts Payable	7 000
Fridges	40 000	Loan – ANZ (repay. \$6 000 p.a.)	36 000
GST Receivable	800	Capital – Sam	?
Inventory	25 000		
Total Assets	83 800	Total Equities	83 800



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In the first week of October 2030, the following transactions occurred:

- Oct. 1 Paid \$2 000 to Accounts Payable
2 Sam contributed \$5 000 of his own money to the business
3 Paid \$3 000 off the loan principal
4 Purchased inventory on credit for \$10 000 (plus GST)
5 Sam took home for personal use a fridge worth \$2 500
6 Paid rent in advance for the next 6 months: \$1 320 (including GST)

Required

- a. **Prepare** a table to show the effect of each transaction on the Balance Sheet of Sam Booker Grocery.
*b. **Prepare** a classified Balance Sheet for Sam Booker Grocery as at 6 October 2030.
c. **Referring** to your answer to part b, **explain** your treatment of rent paid in advance.

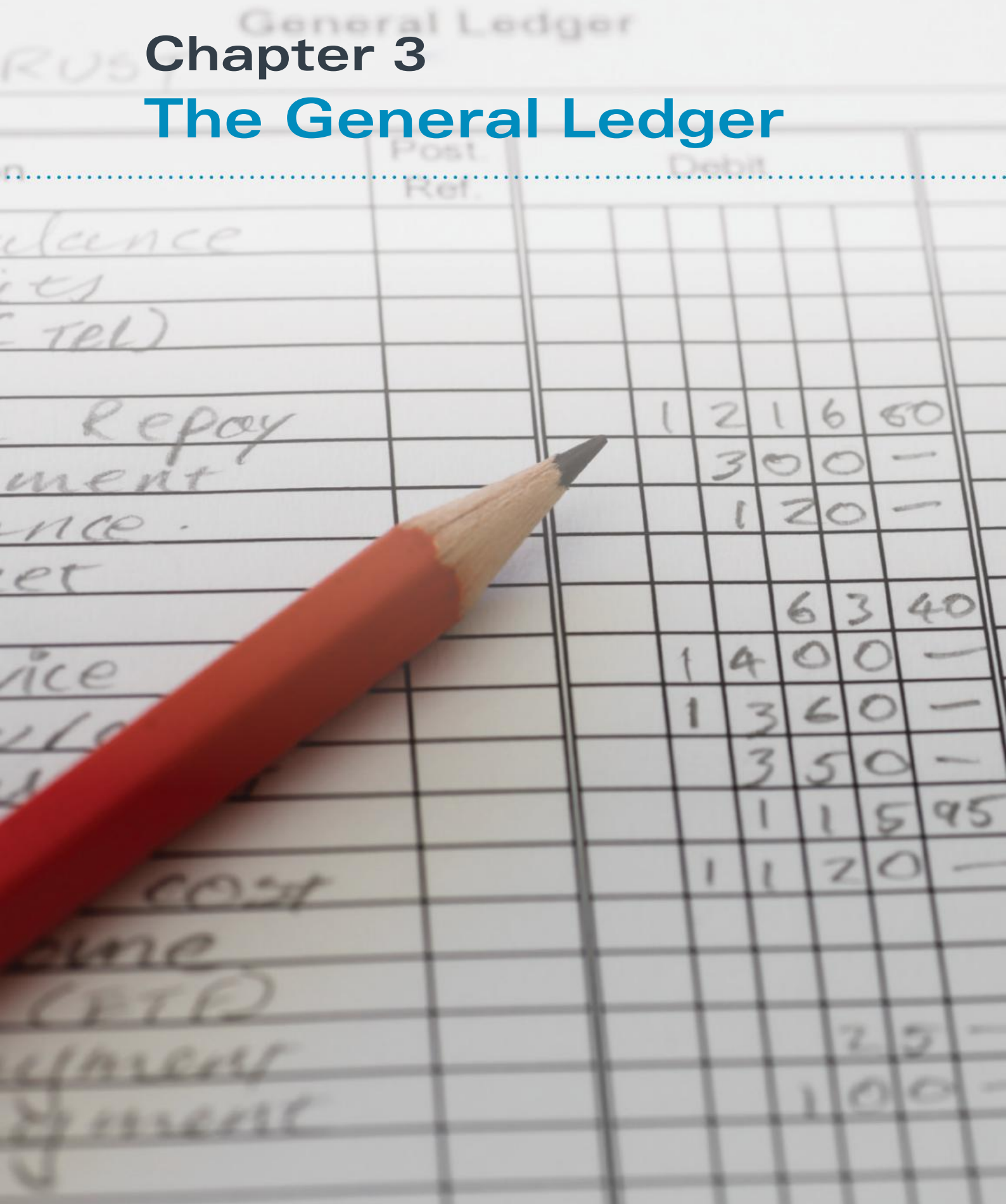
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Chapter 3

The General Ledger



The image shows a close-up of a General Ledger account for 'Prepaid Insurance'. A red pencil is pointing to the debit column. The account is structured with a 'Post. Ref.' column and a 'Debit' column. The 'Debit' column is further divided into four sub-columns for thousands, hundreds, tens, and units. The account shows several debit entries, with a total of 2,200.00. The account is currently closed, as indicated by the '0000' in the 'Post. Ref.' column.

	Post. Ref.	Debit
Balance		
12/1		1,216.80
12/31		300.00
12/31		120.00
		634.00
1/1		1,400.00
1/31		360.00
1/31		350.00
1/31		115.95
1/31		1120.00
		2,200.00
		100.00

Learning intentions

After completing this chapter, you should be able to:

- **explain** the role of the General Ledger
- **apply** the rules of double-entry Accounting to the General Ledger
- **identify** the effect of transactions on the Accounting equation using an Analysing Chart
- **explain** the role of a cross-reference
- **record** transactions in the General Ledger, including:
 - opening balances
 - cash and credit purchases of inventory
 - cash and credit sales of inventory
 - receipts from Accounts Receivable
 - payments to Accounts Payable
 - drawings by the owner
- **foot** ledger accounts
- **prepare** a Trial Balance
- **balance** ledger accounts.

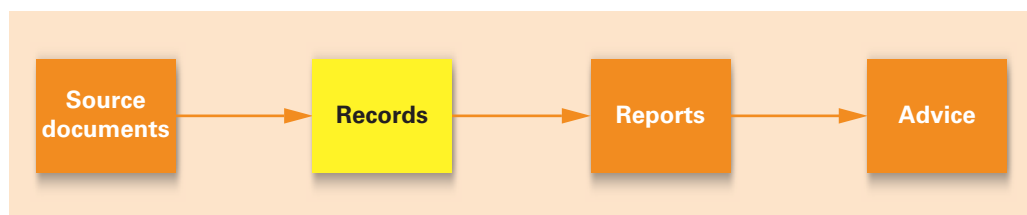
Key terms

After completing this chapter, you should be familiar with the following terms:

- ledger account
- General Ledger
- debit side
- credit side
- cross-reference
- Analysing Chart
- Cost of Sales
- Trial Balance
- footing
- balancing.



3.1 Ledger accounts and the General Ledger



Chapter 2 introduced the concept of double-entry Accounting – the principle that for every business transaction, there will be at least two effects on the Accounting equation, and that after each transaction, the Accounting equation must still balance. This was illustrated by any number of transactions, each of which required a redrawing of the Accounting equation to reflect how its components had changed.

Having done some exercises in Chapter 2, it may by now have occurred to you that rewriting the Accounting equation after every transaction would not be practical for a real, functioning small business. (In addition, the Accountant or bookkeeper would probably find it very repetitive and boring!)

This is particularly the case when we consider that although every transaction will change at least two items in the Accounting equation, there may well be a large number of items that do *not* change. For instance, a credit purchase of inventory will increase Inventory (asset), decrease GST payable (liability) and increase Accounts Payable (liability) but will have no effect whatsoever on Bank, Accounts Receivable, Loans or even Capital. There may be many items that do not need to be changed, but they would still need to be rewritten in an updated version of the Accounting equation.

The challenge then is to develop an Accounting system that is capable of recording changes in the Accounting equation without requiring it to be rewritten every time. The response to this challenge is to record transactions in ledger accounts.

Ledger accounts and the General Ledger

ledger account
an Accounting record showing all the transactions that affect a particular item

As part of the Accounting process, a **ledger account** is an Accounting record (like a scrollable page) where the effects of transactions are written down, with each ledger account recording all of the transactions that affect a particular item in the financial reports. For instance, the Bank ledger account will record all movements of cash in and out of the firm's bank account; the Inventory ledger account will record all movements of inventory in and out of the business; the Accounts Payable ledger account will record all increases and decreases in what the firm owes to that supplier.

General Ledger
the collective name for the main group of ledger accounts

There must be a separate ledger account for each item in the reports; that is, a separate ledger account for Bank, and a separate ledger account for each of Inventory, Accounts Receivable, Accounts Payable, GST, Loans, Capital, etc. If the business has 400 items in its reports, it will need 400 ledger accounts. Collectively, this group of ledger accounts is known as the **General Ledger**, and when taken together, the accounts in the General Ledger sort, classify and summarise financial data to transform it into information that can then be used in Accounting reports.

At the same time, each individual ledger account only records the increases or decreases *in that particular item*. That is, the Bank ledger account will only record changes to Bank, and the Accounts Payable ledger account will only record changes to amounts owed to suppliers.

Each transaction changes at least two items in the Accounting equation, so at least two ledger accounts will need to be changed, but by recording each transaction *only in the ledger accounts of the items that are affected*, changes to the Accounting equation can be recorded without having to rewrite every item in that Accounting equation.

The ‘T-form’ ledger account

The most basic form of a ledger account is a ‘T-form’ account, created by dividing the page into two columns. The left-hand column is labelled the debit column (or **debit side**), and the right-hand column is labelled the credit column (or **credit side**). Figure 3.1 shows the format of a T-form account:

Figure 3.1 T-form account

Name of item/account	
Debit column/side (Dr)	Credit column/side (Cr)

debit side
the left-hand side of a ledger account

credit side
the right-hand side of a ledger account

The word ‘debit’ in this context simply means the left side of a ledger account, and ‘credit’ means the right side of a ledger account; neither one should be thought of as good or bad. One of these columns will be used to record increases in the value of the item; the other will be used to record decreases.

The ‘3-column’ or ‘running balance’ ledger account

General Ledger accounts can also be prepared as ‘3-column’ or ‘running balance’ ledger accounts. These accounts retain separate columns for debit and credit entries (indeed, there is still a ‘T’ between the debit and credit entries), but it is only the amount that is recorded on the debit or credit side. Further, they include an additional column showing the updated (running) balance after each transaction. Figure 3.2 shows the format of a 3-column ledger account:

Figure 3.2 3-column ledger account

Name of item/account				
Date	Details	Debit (Dr)	Credit (Cr)	Balance

A 3-column ledger account is particularly suited to spreadsheets (like Excel or Numbers) where a formula can be used to calculate the balance automatically.



Review questions 3.1

- 1 Explain** the role of a ledger account.
- 2 In reference to ledger accounts, define** the following terms:
 - General Ledger
 - debit side
 - credit side.
- 3 Explain** how T-form and 3-column ledger accounts are:
 - similar
 - different.



3.2 Double-entry recording in ledger accounts

There are set rules for recording transactions in ledger accounts, rules that apply the concepts of double-entry recording and preserve the Accounting equation.

Just as every transaction will affect at least two items in the Accounting equation, every transaction will affect at least two ledger accounts. In order to ensure that the Accounting equation remains in balance, the transaction must be recorded in one of those ledger accounts on the debit side and in the other account on the credit side. The rules for double-entry recording in ledger accounts are:

Double-entry rules

- 1 Each transaction must be recorded in at least two ledger accounts.
- 2 Each transaction must be recorded on the debit side of at least one ledger account and on the credit side of at least one other account, and these entries must balance.

Given that every transaction must be recorded on the debit side of one ledger account and the credit side of another, the most obvious question is: when are transactions recorded on the debit side, and when are they recorded on the credit side? Unfortunately, there is no one answer as it depends on what type of item is in question. Fortunately, just as a T-form account looks like a Balance Sheet, the rules for recording in a ledger account follow a similar pattern.

Assets

Asset items appear on the *left* of the Balance Sheet, so *increases* to assets are recorded on the *left* – the *debit* side – of the asset account. By the law of opposites, *decreases* in assets must be recorded on the *credit* side of the asset account.

Bank (Asset)	
Increases are recorded on the debit side	Decreases are recorded on the credit side

Liabilities and owner's equity

Liabilities and owner's equity items appear on the *right* of the Balance Sheet, so *increases* in liabilities or owner's equity are recorded on the *right* – the *credit* side – of those ledger accounts. By the law of opposites, *decreases* in liabilities and owner's equity must be recorded on the *debit* side of these accounts.

Accounts Payable (Liability)	
Decreases are recorded on the debit side	Increases are recorded on the credit side

Capital (Owner's equity)	
Decreases are recorded on the debit side	Increases are recorded on the credit side

Recording ledger entries

Let's examine a transaction to see how it would be recorded in the General Ledger accounts.

On 1 January 2030, Bill Brighton deposited \$40 000 of his own funds in a business bank account to commence business operations as Bright Books.

Example

What ledger entries are required to record this transaction?

First, the deposit by the owner means that the firm's **Bank** is increasing. Because Bank is an asset, which will appear on the *left* side of the Balance Sheet, the \$40 000 increase must be recorded on the *left* side – the **debit side** – of the Bank ledger account. This would be described as 'debiting the Bank account'.

Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1		40 000			

At the same time, the fact that the cash has come from the owner means that **Capital** is increasing. As an owner's equity item, Capital would appear on the *right* side of the Balance Sheet, so the increase must be recorded on the *right* side – the **credit side** – of the Capital ledger account. This would be described as 'crediting the Capital account'.

Capital (Oe)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Jan. 1		40 000

One transaction has produced an effect on two different accounts, with one entry on the debit side (in the Bank account) and one entry on the credit side (in the Capital account).

The cross-reference

Note how each entry in this example shows both the date of the transaction and its amount. It has probably not escaped your attention that there is a gaping hole in each of the ledger accounts shown – a hole that seems to require an additional piece of information. (If it had initially escaped your attention, it should be obvious now that it has been pointed out!)



cross-reference

the name of the other account/s affected by a transaction, so that all accounts affected by a particular transaction can be identified

This space between the date and the amount of each transaction is used to record what is known as the **cross-reference**. Because each transaction affects two ledger accounts at the same time, these accounts are linked. The cross-reference specifies the link between these accounts by identifying the *other* account affected. In the Bank account, for example, the cross-reference would be 'Capital', while in the Capital account the cross-reference would be 'Bank'.

The two accounts – with their cross-references now entered – would show:

Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1	Capital	40 000			

Capital (Oe)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Jan. 1	Bank	40 000

In reading these ledger accounts, it is the side on which the *amount* is placed that determines whether the account has been debited or credited. In this example, the \$40 000 appears on the left side of the Bank account, so it is this account that has been debited. A common misconception is to confuse the cross-reference with the account. The cross-reference 'Capital' appears only to show the name of the *other* account affected by that particular transaction.

Continuing with the ledger accounts used on the previous page, the transactions would be recorded as follows:

**Example
(continued)**

Bright Books had the following transactions in its first week of operations:

Jan. 2 Borrowed \$20 000 from Sunbank

Jan. 3 Purchased inventory on credit from KH Books for \$12 000 (plus GST)

Jan. 4 Paid \$45 000 (plus GST) for a van to use for business deliveries


Video 3.1

Recording in
ledger accounts

Jan. 2 Borrowed \$20 000 from Sunbank

Like a capital contribution, this transaction will increase Bank, which as an asset is found on the left-hand side of the Balance Sheet, so this increase must be recorded on the **debit** side of the **Bank** account. And although the source of the cash is a loan (liability) rather than the owner, liabilities are also found on the right-hand side of the Balance Sheet, so this increase must also be recorded on the **credit** side, but this time of the **Loan** account.

Jan. 3 Purchased inventory on credit from KH Books for \$12 000 (plus GST)

This transaction will increase Inventory (asset – left-hand side of the Balance Sheet) by \$12 000, so this increase must be recorded on the **debit** side of the **Inventory** account. Because GST is involved, it also results in an increase in GST receivable of \$1 200, that is, 10% of \$12 000. (Transactions will usually not specify that the rate of GST in Australia is 10%.) This increase in an asset (left-hand side of the Balance Sheet) must also be recorded on the **debit** side, but because the GST balance can be either an asset or a liability, the General Ledger uses an account called **GST Clearing** to summarise GST transactions.

At the same time, because this is a credit purchase it will increase the amount owed to Accounts Payable (liability – right-hand side of the Balance Sheet), so the increase must be recorded on the **credit** side of the **Accounts Payable** account. Note that the

GST Clearing

a General Ledger account
used to record all GST
transactions

\$13 200 credit to Accounts Payable is equal to the two debit entries added together – the \$12 000 for the Inventory *plus* the \$1 200 for the GST – as both amounts are owed to the Account Payable.

Note also that because the Accounts Payable account is linked to two other accounts – Inventory *and* GST Clearing – both of these accounts are noted in the cross-reference. (The Inventory and GST Clearing accounts are not linked to each other, but only to the Accounts Payable account, so this is the only cross-reference they contain.)

Jan. 4 Paid \$45 000 (plus GST) for a van to use for business deliveries

Although Bank is an asset and would normally appear on the left of the Balance Sheet, this transaction actually involves a *decrease* to Bank of \$49 500 (\$45 000 for the van (plus GST) of \$4 500), which is therefore recorded on the *credit* side of the Bank account. The increase to assets (in the form of the new van and the extra GST receivable) is recorded as \$45 000 on the *debit* side of the Van account and \$4 500 on the *debit* side of the GST Clearing account. The cross-reference in the Bank account reflects that the payment is linked to both of these accounts.

As a result of these transactions, the accounts in the General Ledger would then appear as shown in Figure 3.3:

Figure 3.3 General Ledger accounts

General Ledger – Bright Books					
Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1	Capital	40 000	Jan. 4	Van / GST Clearing	49 500
2	Loan – Sunbank	20 000			
Capital (Oe)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Jan. 1	Bank	40 000
Loan – Sunbank (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Jan. 2	Bank	20 000
Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 3	Accounts Payable	12 000			
GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 3	Accounts Payable	1 200			
4	Bank	4 500			
Accounts Payable (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Jan. 3	Inventory / GST Clearing	13 200
Van (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 4	Bank	45 000			

Study tip

Although it is likely that there will be more than one line of inventory, all transactions affecting Inventory will be recorded in the same General Ledger account.

Study tip

It is normal for a new business, which has purchased expensive non-current assets and may not have made many sales, to have an asset balance in its GST Clearing account.

Every transaction has been recorded in at least two accounts, with at least one debit entry in one account and at least one credit entry in another account and, because the debits and credits for each transaction match / are equal, the General Ledger has been left in balance after every transaction.



Review questions 3.2

- 1 **State** the two rules of recording in ledger accounts.
- 2 **Identify** on which side of a ledger account a transaction would be recorded in order to:
 - increase an asset account
 - decrease an asset account
 - increase a liability or owner’s equity account
 - decrease a liability or owner’s equity account.



3.3 Recording revenues and expenses

Although they are not reported in the Balance Sheet, the ledger rules for recording revenues and expenses can be determined by referring to their relationship to owner’s equity.

Revenues

Revenues represent an *increase* in owner’s equity (it is, in fact, part of the definition), so the rules for recording revenue are the same as those for recording an increase in owner’s equity: *increases* are recorded on the *credit side* of the ledger account and, by the law of opposites, decreases are recorded on the *debit* side.

Sales (Revenue)	
Decreases are recorded on the debit side	Increases are recorded on the credit side

Expenses

Expenses represent a *decrease* in owner’s equity (again, as dictated by the definition), so the rules for recording expenses are the same as those for recording a decrease in owner’s equity: an *increase* in expenses (which means a decrease to owner’s equity) is recorded on the *debit* side of the expense account, with *decreases* in expenses recorded on the *credit* side.

Wages (Expense)	
Increases are recorded on the debit side	Decreases are recorded on the credit side

Study tip

Revenues and expenses are recorded on opposite sides of the ledger: revenues on the credit side, expenses on the debit side.

Example
(continued)

Bright Books had two further transactions in its first week of operations:

Jan. 5 Received \$600 interest on a bank account

Jan. 6 Paid wages \$1 200

These revenue and expense transactions would be recorded in the General Ledger as is shown in Figure 3.4:

Figure 3.4 General Ledger: revenues and expenses

General Ledger – Bright Books Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1	Capital	40 000	Jan. 4	Van / GST Clearing	49 500
2	Loan – Sunbank	20 000	6	Wages	1 200
5	Interest revenue	600			
Interest revenue (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Jan. 5	Bank	600
Wages (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 6	Bank	1 200			

Figure 3.5 summarises how to record an increase or decrease in each type of ledger account:

Figure 3.5 Summary of ledger entries

Type of account	Debit side	Credit side
Asset	Increase	Decrease
Liability	Decrease	Increase
Owner's equity	Decrease	Increase
Revenue	Decrease	Increase
Expense	Increase	Decrease

Analysing Charts

Until these recording rules become second nature (which they will and, in fact, must), it may be worthwhile to follow the four simple steps outlined below to record transactions in the General Ledger:

- 1 Identify the items (accounts) affected. (There will be at least two.)
- 2 Identify what type of accounts they are, either A / L / Oe / R / E.
- 3 Identify whether they are increasing or decreasing.
- 4 Use the Balance Sheet (or the table shown in Figure 3.5) to identify whether the account should be debited or credited.

Analysing Chart

a tool used to identify the steps for recording transactions in the General Ledger

Study tip

If the GST Clearing account had a credit balance instead, these transactions would still require debit entries, but they would decrease a liability rather than increase an asset.

This procedure can be followed by completing what is known as an **Analysing Chart**. The Analysing Chart for the six transactions of Bright Books is shown in Figure 3.6:

Figure 3.6 Analysing Chart

Date	Accounts affected	Type of account	Increase/Decrease	Debit \$	Credit \$
Jan. 1	Bank	Asset	Increase	40 000	
	Capital	Owner's equity	Increase		40 000
Jan. 2	Bank	Asset	Increase	20 000	
	Loan – Sunbank	Liability	Increase		20 000
Jan. 3	Inventory	Asset	Increase	12 000	
	GST Clearing	Asset *	Increase *	1 200	
	Accounts Payable	Liability	Increase		13 200
Jan. 4	Van	Asset	Increase	45 000	
	GST Clearing	Asset *	Increase *	4 500	
	Bank	Asset	Decrease		49 500
Jan. 5	Bank	Asset	Increase	600	
	Interest revenue	Revenue	Increase		600
Jan. 6	Wages	Expense	Increase	1 200	
	Bank	Asset	Decrease		1 200

* GST Clearing can be an asset or a liability

By convention, the debit entry is shown first, and the second entry is indented slightly to emphasise that it is the credit entry.

The Analysing Chart is *not* an Accounting record; it is simply a tool to use until the ledger entries become automatic (like training wheels when you learn to ride a bike). When you feel that you know the ledger rules (and can balance on your own two wheels), you can stop using the Analysing Chart and record the transactions straight into the ledger accounts.

**Review questions 3.3**

- Referring to their relationship to owner's equity, **explain** why:
 - revenue accounts increase on the credit side
 - expense accounts increase on the debit side.
- Draw** a table to summarise the rules for recording in ledger accounts.
- Explain** the role of an Analysing Chart.



3.4 Specific transactions

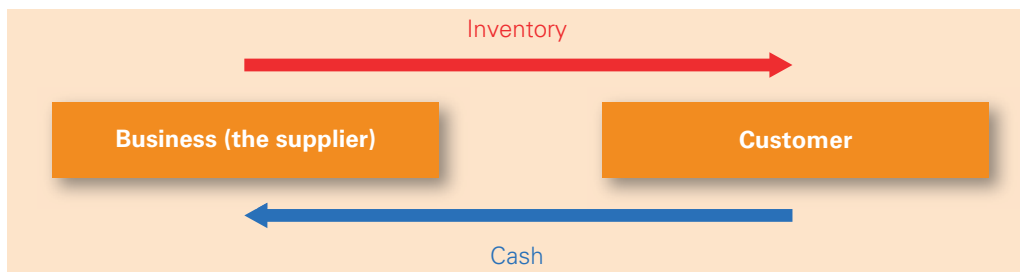
The principles of recording in ledger accounts can be applied to any transaction using the approach just described, but let's consider some specific transactions.

Cash sales (of inventory)

Most of the entries that have been dealt with to date have had only one double-entry effect on the ledger accounts, even if that effect required two debits to match one credit (or vice versa). The sale of inventory – whether for cash or on credit – is more complicated because it requires two separate, yet related, double-entries, involving two different prices.

Figure 3.7 represents the flows of **cash** and **goods** from a sale of inventory:

Figure 3.7 Sale of inventory



The simple mechanics of a cash sale involve the business (the supplier) receiving **cash** in exchange for providing **goods (inventory)** to the customer.

However, the **cash received** and the **inventory sold** will be valued differently: the **cash** will be for the **selling price** (and will include **GST**), whereas the **inventory** sold will be valued at its **cost price**. (In fact, it is the difference between the **selling price** and the **cost price** that creates a Gross Profit from the sale.)

And because there are two prices to record, there are two double-entries to record in the General Ledger.

On 7 July 2030, McCallister Holdings made a cash sale of inventory for **\$590** (plus **GST**). The inventory had a cost price of **\$320**.

Example

Selling price

A cash sale results in a receipt of cash for both the **selling price** (\$590) and the **GST** on the sale (\$59), so the total cash received (**\$649**) is recorded as a **debit** to the **Bank** account to recognise the increase in this asset. **Sales revenue** is then **credited** by **\$590** to recognise the **revenue earned from the sale**, and **GST Clearing** is **credited** by **\$59** to recognise the (increase in the) liability owed to the ATO.

Cost price

At the same time, the sale results in a decrease in the **Inventory** held by the business, and this is recorded by way of a **credit** entry to this account. However, goods are valued in the Inventory account at their original purchase price, so this reduction in assets will be recorded at its **cost price** of \$320.

The value of the decrease in Inventory as a result of the sale is also recorded as an expense, as it arises as a result of ordinary business activities, and it leads to a decrease in owner's equity. This **expense that has been incurred** is called **Cost of Sales** and is recorded via a **debit** of \$320 to this (expense) account.

In essence then, a cash sale leads to a **decrease** in one asset (**Inventory**) valued at **cost price**, in return for an **increase** in another asset (**Bank**) valued at **selling price**, with the difference between the **Sales** revenue and **Cost of Sales** expense representing the Gross Profit earned from the sale. (The **GST** increases the asset – **Bank** – and increases the liability – **GST Clearing** – without affecting Gross Profit at all.)

Figure 3.8 shows how this sale would affect the ledger accounts:

Cost of Sales

the value of inventory that has been sold in a particular period, valued at its cost price

Figure 3.8 Analysing Chart: cash sale

Date	Accounts affected	Type of account	Increase/Decrease	Debit \$	Credit \$
July 7	Bank	Asset	Increase	649	
	Sales	Revenue	Increase		590
	GST Clearing	Liability	Increase		59
	Cost of Sales	Expense	Increase	320	
	Inventory	Asset	Decrease		320

The cash sale would be recorded in the General Ledger as shown in Figure 3.9:

Figure 3.9 General Ledger: cash sale

General Ledger Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	1 000			
7	Sales / GST Clearing	649			
GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 1	Balance	1 600
			7	Bank	59
Sales (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 7	Bank	590
Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	4 000	July 7	Cost of Sales	320
Cost of Sales (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 7	Inventory	320			

Effect on the Accounting equation

A cash sale thus has the following effect on the Accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Increase (Increase Bank \$649 , decrease Inventory \$320)	329
Liabilities	Increase (GST Clearing \$59)	59
Owner's equity	Increase (Sales \$590 less Cost of Sales \$320 = Profit \$270)	270

Credit sales

A credit sale involves the same provision of inventory as a cash sale, but it differs in that the cash is received from the customer *at a later date*.

As with a cash sale, a credit sale generates revenue because it creates an increase in assets that leads to an increase in owner's equity. The only difference is that for a cash sale, the increase in assets is in the form of cash (Bank), whereas for a credit sale, the asset is in the form of an amount owed by **Accounts Receivable**.

On 12 July 2030, McCallister Holdings made a credit sale of inventory for **\$720** plus **GST**. The inventory had a cost price of **\$480**.

**Example
(continued)**

Figure 3.10 shows how this credit sale would affect the ledger accounts:

Figure 3.10 Analysing Chart: credit sale

Date	Accounts affected	Type of account	Increase/ Decrease	Debit \$	Credit \$
July 12	Accounts Receivable	Asset	Increase	792	
	Sales	Revenue	Increase		720
	GST Clearing	Liability	Increase		72
	Cost of Sales	Expense	Increase	480	
	Inventory	Asset	Decrease		480

Despite no cash being received, credit sales should still be recognised as revenue in the Period when the sale is made, because it is at this point that the increase in assets (the amount owed by the Accounts Receivable) occurs and, as a consequence, the revenue is earned. Failing to include credit sales as revenue would breach the Accrual basis assumption, and it would omit from the Income Statement an important and *Relevant* piece of information, capable of making a difference to decision-making.

Effect on the Accounting equation

A credit sale thus has the following effect on the Accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Increase (Increase Accounts Receivable \$792 , decrease Inventory \$480)	312
Liabilities	Increase (GST Clearing \$72)	72
Owner's equity	Increase (Sales \$720 less Cost of Sales \$480 = Profit \$240)	240

In terms of profit, a credit sale and a cash sale are almost identical: the only difference is in the nature of the asset (Accounts Receivable instead of Bank) that increases as a result of the sale.

Cash received from Accounts Receivable

Following a credit sale, the business will at some point in the future receive the cash from the Accounts Receivable customer. The most common error in recording this kind of transaction is to treat it as additional revenue rather than as simply the swapping of one asset (**Accounts Receivable**) for another (**Bank**).

Indeed, the fact that *assets do not increase overall* means that cash received from Accounts Receivable *cannot* be recorded as revenue: it does not fit the definition. In addition, recording this cash as revenue would be double-counting the revenue that was already recorded – as a credit sale – when it was earned; that is, at the point of sale, when the goods were provided to the customer.

Example
(continued)

On 24 July 2030 McCallister Holdings received **\$500** from an Account Receivable.

Figure 3.11 shows how this receipt from an Accounts Receivable customer would be entered in the ledger accounts:

Figure 3.11 Analysing Chart: receipt from Accounts Receivable

Date	Accounts affected	Type of account	Increase/Decrease	Debit \$	Credit \$
July 24	Bank	Asset	Increase	500	
	Accounts Receivable	Asset	Decrease		500

Effect on the Accounting equation

A receipt of cash from an Accounts Receivable customer thus has the following effect on the Accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	No effect (Increase Bank , decrease Accounts Receivable)	
Liabilities	No effect	
Owner’s equity	No effect	

Overall, there is no change to total assets or, for that matter, liabilities or owner’s equity (and therefore there is no revenue earned, so there can be no profit from this transaction). All that changes are the individual assets, with **Bank** increasing and **Accounts Receivable** decreasing by the same amount.

The credit sale and the receipt of cash from the Accounts Receivable customer would be posted to the General Ledger as shown in Figure 3.12.

Figure 3.12 General Ledger: credit sale and receipt from Accounts Receivable

General Ledger Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	1 000			
7	Sales / GST Clearing	649			
24	Accounts Receivable	500			

Accounts Receivable (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	900	July 24	Bank	500
12	Sales / GST Clearing	792			

GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 1	Balance	1 600
			7	Bank	59
			12	Accounts Receivable	72

Sales (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 7	Bank	590
			12	Accounts Receivable	720

Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	4 000	July 7	Cost of Sales	320
			12	Cost of Sales	480

Cost of Sales (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 7	Inventory	320			
12	Inventory	480			

Drawings

Drawings represents the value of the assets the owner has withdrawn from the business. Although it is classified as an owner's equity account, because it only records *decreases* in owner's equity, it is in fact a *negative* owner's equity account. This account must therefore be *debited* when drawings occur. The account to be credited depends on the asset the owner has withdrawn: if cash has been withdrawn, the **Bank** account would be credited to record the decrease; if inventory has been withdrawn, then the **Inventory** account would be credited.

McCallister Holdings had the following transactions at the end of the month:

July 28 Owner withdrew \$650 in cash

July 31 Owner took home inventory worth \$1 200

**Example
(continued)**

Figure 3.13 shows how these drawings would be entered in the ledger accounts:

Figure 3.13 Analysing Chart: drawings

Date	Accounts affected	Type of account	Increase/ Decrease	Debit \$	Credit \$
July 28	Drawings	– Owner's equity	Increase	650	
	Bank	Asset	Decrease		650
31	Drawings	– Owner's equity	Increase	1 200	
	Inventory	Asset	Decrease		1 200

These entries would be posted to the General Ledger as shown in Figure 3.14.

Figure 3.14 General Ledger: drawings

General Ledger Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	1 000	July 28	Drawings	650
7	Sales / GST Clearing	649			
24	Accounts Receivable	500			
Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	4 000	July 7	Cost of Sales	320
			12	Cost of Sales	480
			31	Drawings	1 200
Drawings (–Oe)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 28	Bank	650			
31	Inventory	1 200			

Effect on the Accounting equation

Drawings – of cash or some other asset – thus has the following effect on the Accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Decrease Bank \$650, Inventory \$1 200)	1 850
Liabilities	No effect	Nil
Owner's equity	Decrease (Increase Drawings \$1 850)	1 850

Total Drawings – in this case \$1 850 (\$650 cash and \$1 200 inventory) – is then reported in the Balance Sheet under the heading 'Owner's equity', but as a deduction from Capital, as is shown in Figure 3.15.

Figure 3.15 Balance Sheet: owner's equity

MCCALLISTER HOLDINGS Balance Sheet (extract) as at 31 July 2030		
	\$	\$
Owner's equity		
Capital	23 000	
Plus Net Profit	510	
	23 510	
Less Drawings	1 850	21 660

Opening balances

When ledger accounts are started for a business that has already been trading for some time, there will be pre-existing balances for items in its reports, and these balances must be entered in the ledger accounts before any new transactions can be recorded. The normal rules for recording in ledger accounts still apply, such as increases in assets on the debit side and increases in liabilities and owner's equity on the credit side. However, the balances in each account will be the product of a number of different transactions and thus will not be traceable to one single account. This means that the cross-reference can be stated as simply 'Balance'.

The assets and equities of Mickelham Frames as at 1 July 2030 were as follows:

	\$		\$
Bank	1 000	Shelving	17 000
Inventory	4 000	Accounts Payable	2 000
Accounts Receivable	3 000	GST Clearing	1 800 CR
Capital – Malloy	21 200		

Example

Even when entering opening balances, a proper double-entry must still be recorded, with total debits equalling total credits. Figure 3.16 shows the Analysing Chart to enter these opening balances:

Figure 3.16 Analysing Chart: opening balances

Date	Accounts affected	Type of account	Increase/ Decrease	Debit \$	Credit \$
July 1	Bank	Asset	Increase	1 000	
	Inventory	Asset	Increase	4 000	
	Accounts Receivable	Asset	Increase	3 000	
	Shelving	Asset	Increase	17 000	
	Accounts Payable	Liability	Increase		2 000
	GST Clearing	Liability	Increase		1 800
	Capital	Owner's equity	Increase		21 200

Study tip

If the Capital figure is not given, it must be calculated using the Accounting equation:
 $O_e = A - L$.

Figure 3.17 shows how these opening balances would be entered in the ledger accounts:

Figure 3.17 General Ledger: opening balances

General Ledger					
Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	1 000			
Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	4 000			
Accounts Receivable (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	3 000			
Shelving (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	17 000			
Accounts Payable (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 1	Balance	2 000
GST Clearing (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 1	Balance	1 800
Capital (Oe)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 1	Balance	21 200



Review questions 3.4

1 Show the debit and credit entries necessary to record:

- a cash sale (of inventory)
- a credit sale (of inventory)
- a receipt from Accounts Receivable
- cash drawings.

2 Explain why cash received from Accounts Receivable does not increase profit.



3.5 The Trial Balance

Once all transactions have been recorded in the General Ledger, it must be checked to see that the Accounting equation still balances; that is, that the total debits equal the total credits. This check is carried out by preparing a **Trial Balance**, which is a list of all the ledger accounts and their balances, with the balance being the 'net amount' left in an account.

Trial Balance

a list of all the accounts in the General Ledger, and their balances, to determine if total debits equal total credits

Footling ledger accounts

Before the Trial Balance can be prepared, each ledger account must be 'footed'. **Footling** is the process of informally calculating the balance of an account, and it involves the following steps:

- 1 Adding up all the amounts on the debit side, and then pencilling the total below the last debit amount.
- 2 Adding up all the amounts on the credit side, and then pencilling the total below the last credit amount.
- 3 Deducting the smaller total from the larger total.
- 4 Pencilling this figure – the balance – on the side of the larger total, and then drawing a circle around it.

This **balance** should *not* be written in the same column as the other amounts, because this risks inadvertently (and incorrectly) counting it as an additional entry. The balance should be written in the cross-reference section to make it clear that it is not an *entry* but the *footed balance* of the account. Figure 3.18 shows how a Bank account would be footed.

footling

an informal process used to determine the balance of a ledger account

Figure 3.18 Footling an account

General Journal Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
March 1	Balance	12 500	March 3	Wages	4 000
15	Sales/GST Clearing	6 000	12	Rent / GST Clearing	9 000
22	Accounts Receivable	3 400	25	Drawings	6 250
	2650				
		21 900			19 250

The balance of the Bank account is thus **\$2 650** (on the debit side, meaning it is an asset).

The Trial Balance

Once all the accounts have been footed, the balances are listed in two columns: one for debit balances and one for credit balances. The columns are then totalled and – if the

ledger recording is correct – the totals should be the same. Figure 3.19 shows the Trial Balance for Clack's Shoe Shop as at 31 March 2030.

Figure 3.19 Trial Balance

CLACK'S SHOE SHOP Trial Balance as at 31 March 2030		
Account	Debit \$	Credit \$
Accounts Payable		6 500
Accounts Receivable	8 900	
Advertising	400	
Bank	2 650	
Buying expenses	200	
Capital – Clack		18 850
Cost of Sales	5 600	
Drawings	2 500	
GST Clearing		500
Inventory	22 000	
Interest revenue		100
Loan – KH Bank		40 000
Rent	1 500	
Sales		13 000
Shop fittings	33 100	
Wages	2 100	
Totals	78 950	78 950

Study tip

If the Trial Balance does not balance, look for a transaction involving the amount identified as the difference, half the difference or twice the difference, and check this entry first.

Errors revealed

If the Trial Balance does **not** balance, the ledger entries have not been recorded correctly, perhaps because:

- two entries have been recorded on the *same side* of the General Ledger (for example, two debits or two credits, instead of one debit and one credit)
- only *one entry* has been recorded (for example, one debit entry without a corresponding credit entry, or vice versa)
- *different amounts* have been recorded on each side (for example, \$450 on the debit side but \$4 500 on the credit side).

In this case, the entry that has caused the difference between the two totals must be found and corrected.

Errors not revealed

In spite of its benefits, the usefulness of a Trial Balance as a diagnostic tool in detecting errors is limited: it will only detect errors if total debits do not equal total credits. One or more of the following errors may be present in the ledger accounts even when the Trial Balance balances:

- A transaction has been *omitted* altogether.
- The debit and credit entries have been *reversed*. (For example, instead of recording a payment to an Account Payable by debiting Accounts Payable and crediting Bank, the entry is erroneously recorded as a debit to Bank and a credit to Accounts Payable.)

- The transaction has been recorded in the *wrong ledger accounts*. (For example, instead of recording the payment of wages as a debit to the Wages account, the transaction is incorrectly debited to Rent.)
- An *incorrect amount* is recorded on both sides of the ledger.

None of these (incorrect) entries would be detected or revealed by a Trial Balance because each of them still has matching debit and credit entries. That is, even though the entry would be wrong, there would still be an amount recorded on the debit side and an equal amount recorded on the credit side. The Trial Balance is a useful tool, but it will not detect all the errors that may exist in the ledger.



Review questions 3.5

- 1 **State** the purpose of a Trial Balance.
- 2 Referring to ledger accounts, **state** what is meant by the term 'footing'.
- 3 **List** the steps involved in footing a ledger account.
- 4 **State** three errors that will be detected by the preparation of a Trial Balance.
- 5 **State** four errors that will **not** be detected by the preparation of a Trial Balance.



3.6 Balancing

Footing is an informal process that can be done to any account at any time to determine its balance. But **balancing** asset, liability and owner's equity accounts must occur at the end of the period, with these accounts formally 'ruled off' so that their balances can be reported in the Balance Sheet and also carried forward to the next period. This helps to ensure *Relevance* in the Balance Sheet, as only the accurate and up-to-date figures (from the end of the period) that might make a difference to decision-making are reported.

balancing

ruling off an asset, liability or owner's equity account to determine its balance at the end of the current period and transferring that balance to the next period

Balancing ledger accounts

Balancing an account involves the following steps:

- 1 **Totalling the amounts on each side, and then writing the larger of these two totals on both sides.**

In the following example, the transactions on the debit side add up to \$21 900, and the transactions on the credit side add up to only \$19 250, so \$21 900 is written *on both sides*. This figure should be 'ruled off' with a double line to indicate that in the current Period there are no more transactions that affect the account.

This is **not** the *balance* of the account: it is the *total*. At this point, the amounts on only one side – in this case the debit side – will add up to this total of \$21 900.

- 2 **Calculating the balance by deducting the total of the smaller side from the total of the account.**

In the example, this is \$21 900 (total) – \$19 250 (smaller side) = \$2 650 (balance).

- 3 **Entering this balance as a proper ledger entry, with a matching debit and credit:**
 - above the total on the smaller side
 - below the total on the larger side.

This entry 'carries forward' the balance from the end of one period to the start of the next. This is why in the example the date is given as March 31 *above* the total but as April 1 *below*.

Figure 3.20 shows the ‘Bank’ account after it has been balanced.

Study tip

Compare this ‘balanced’ account with the ‘footed’ account in Figure 3.18. The balance of the account is the same, but this account has been more formally completed.

Figure 3.20 Balancing an account

General Ledger Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
March 1	Balance	12 500	March 3	Wages	4 000
15	Sales / GST Clearing	6 000	12	Rent / GST Clearing	9 000
22	Accounts Receivable	3 400	25	Drawings	6 250
			31	Balance	2 650
		21 900			21 900
April 1	Balance	2 650			

In this example, the **balance of \$2 650** must be recorded *on the credit side above the total* so that the credit side adds up to **\$21 900**. It must then be transferred to the *debit side, but below the total*, as the opening balance for the next period (beginning 1 April 2030).

Balancing versus footing

Both footing and balancing involve calculating the balance of an account, but there are three main differences:

- 1 Balancing is done only at the end of the period.
- 2 Only asset, liability and owner’s equity accounts are balanced. (Revenue and expense accounts are *closed*. This will be covered in detail in Chapter 9.)
- 3 Balancing is a more formal process, involving a proper double-entry; that is, a debit and matching credit entry.



Video 3.2

Balancing and footing



Review questions 3.6

- 1 **List** the steps involved in balancing a ledger account.
- 2 **Explain** why the entries required to balance a ledger account are shown with different dates.
- 3 **List** three differences between footing and balancing a ledger account.





Where have we been?

- A ledger account is an Accounting record showing all the transactions that affect a particular item.
- The General Ledger is the collective name for all the ledger accounts.
- The left-hand side of a ledger account is the debit side; the right-hand side is the credit side.
- Every transaction must be recorded in at least two ledger accounts. Every transaction must have at least one debit entry and at least one credit entry, and these entries must balance.
- To record an increase in assets or expenses, record the transaction on the debit side.
- To record an increase in liabilities, owner's equity or revenues, record the transaction on the credit side.
- The cross-reference specifies the link between accounts by identifying the other account/s affected.
- Footing is an informal process to calculate the balance of an account.
- Errors a Trial Balance *will* reveal: two entries recorded on the same side, only one entry recorded or a different amount recorded on each side.
- Errors a Trial Balance *will not* reveal: a transaction omitted altogether, debit and credit entries reversed, a transaction recorded in the wrong ledger accounts or an incorrect amount recorded on both sides of the ledger.
- Balancing involves ruling off an asset, liability or owner's equity account to determine its balance at the end of the current period and transferring that balance to the next period.



Exercises

Please note: asterisks indicate that an answer for that question is available in the Selected Answers section at the end of this book.



Exercise 3.1

Recording in the General Ledger

Jane Green is a former groundskeeper who has just gone into business for herself selling lawn seed, operating under the name Reap and Sow. Her transactions for the first week of May 2030 are shown below:

- May
- 1 Contributed \$40 000 cash to commence business
 - 2 Rented a small office, paying \$500 (plus GST) for May 2030
 - 3 Purchased inventory worth \$8 000 (plus GST) on credit from Lush Lawnseed
 - 4 Paid \$3 000 (plus GST) for office furniture
 - 5 Paid \$150 (plus GST) for advertising in the local paper.
 - 6 Jane contributed to the business her personal computer (fair value \$1 200)

Required

- a. **Prepare** an Analysing Chart to show the double entry required to record each entry in the General Ledger of Reap and Sow.
- b. **Record** the transactions for the first six days of May 2030 in the General Ledger of Reap and Sow.
- c. Referring to the definitions, **explain** why the transaction on 3 May 2030 creates a liability for Reap and Sow.
- d. Referring to one Accounting assumption, **explain** why the transaction on 6 May 2030 must be recorded in the accounts of Reap and Sow.



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Exercise 3.2

Recording in the General Ledger

Phil Meecup just commenced business as Quick Perk, a company that sells coffee machines. The following transactions occurred during the first week of November 2030:

- Nov.
- 1 Phil contributed \$25 000 cash to commence business
 - 2 Took out a mortgage from the Bank of RLM for \$154 000 and then used the cash to purchase premises for \$140 000 (plus GST).
 - 3 Purchased inventory worth \$50 000 (plus GST) on credit from NewCaffe Supplies.
 - 4 Paid wages to office manager \$1 900.
 - 5 Phil withdrew \$1 000 cash for personal use.
 - 6 Paid \$4 000 (plus GST) for advertising that will not begin until December 2030
 - 7 Paid NewCaffe Supplies \$1 500

Required

- a. **Prepare** an Analysing Chart to show the double entry required to record each entry in the General Ledger of Quick Perk.
- b. **Record** the transactions for the first week of November 2030 in the General Ledger of Quick Perk.



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- c. **Explain** how the Going concern assumption affects the recording of the transaction on 2 November 2030.
- d. Referring to the definitions, **explain** why the advertising should be recognised as a current asset as at 7 November 2030.



Exercise 3.3

Cash sales in the General Ledger

Melita Anogra just opened Melita Mows, a shop specialising in the sale of mowers. The firm's transactions for the first week of January 2030 showed the following:

Jan.	1 Contributed capital to commence business including \$15 000 cash and one vehicle worth \$22 000 2 Paid rent of \$660 (including GST) for January 2030 3 Purchased mowers on credit for \$45 000 (plus GST) from Havana Mowers 4 Sold one mower for \$700 cash (plus GST) (cost price \$500) 5 Paid wages of assistant \$150 6 Sold two mowers for \$700 cash (plus GST) (cost price \$500) each 7 Paid \$2 500 to Havana Mowers



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Required

- a. **Explain** why the vehicle contributed on 1 January 2030 cannot be valued at the price paid by the owner.
- b. **Prepare** an Analysing Chart to show the double entry required to record each entry in the General Ledger of Melita Mows.
- c. **Record** the transactions for the first week of January 2030 in the General Ledger of Melita Mows.
- d. **State** the effect on the Accounting equation of the transaction on 4 January 2030.
- e. **Explain** how valuing inventory at its cost price ensures *Faithful representation* in the Balance Sheet.
- f. **Calculate** Gross Profit for Melita Mows for the first week of January 2030.



Exercise 3.4

Cash and credit sales in the General Ledger

Kim Swood just opened her own spare parts shop called Monaro Motors. Transactions for August 2030 showed the following:

Aug.	1 Capital contribution of \$10 000 inventory and \$30 000 cash 2 Purchased premises worth \$150 000 (plus GST) paying a \$10 000 cash deposit with the balance funded by a mortgage from QV Bank 3 Cash sale of parts for \$440 (including GST) (cost price \$200) 4 Paid \$2 500 (plus GST) to Wilson Fittings for shelving 5 Purchased inventory on credit from HolFord Parts for \$2 860 (including GST) 6 Sold parts on credit to Lemon Rentals for \$900 (plus GST) (cost price \$450) 7 Paid wages of apprentice \$600 8 Kim Swood took home inventory worth \$1 500 9 Received \$500 cash from Lemon Rentals



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Required

- a. **Prepare** an Analysing Chart to show the double entry required to record each transaction in the General Ledger of Monaro Motors.
- b. **Record** the transactions for August 2030 in the General Ledger of Monaro Motors.
- c. **Explain** how the Accrual basis assumption affects the reporting of the transaction on 6 August 2030.
- d. **State** the purpose of preparing a Trial Balance.
- *e. **Foot** the accounts and **prepare** a Trial Balance as at 9 August 2030.

..



Exercise 3.5

Opening balances in the General Ledger

Finoula O’Riley owns a small shop called Hot Doggies that sells dog-grooming products. Finoula has been operating for three years, but on 1 June 2030 decided to adopt a double-entry recording system. Her opening account balances on 1 June 2030 were Bank \$1 500, Inventory \$5 000, Accounts Receivable \$8 000, Shelving \$16 000, GST payable \$2 000, Loan – CF Bank \$6 000 and Capital – O’Riley \$22 500.

Transactions for June 2030 showed the following:

June	1	Received \$2 000 cash from Accounts Receivable (Lynx) for inventory sold in May 2030
	2	Finoula contributed to the business her laptop worth \$2 500
	3	Inventory was sold on credit to Allendale Kennels for \$1 000 (plus GST) (cost price \$650)
	4	Paid wages \$900
	5	Purchased inventory worth \$1 900 (plus GST) on credit from Laminar Products
	6	Cash sales of \$132 (including GST) (cost price \$80)
	7	Received \$500 from Allendale Kennels
	8	Purchased extra shelving for \$3 520 (including GST) using cash
	9	Cash sales of \$230 (plus GST) (cost price \$150)
	10	Paid \$700 off the principal of the Loan – CF Bank
	11	Inventory was sold on credit to Joanie’s Dog Wash for \$550 (including GST) (cost price \$380)
	12	Paid wages \$900

Required

- a. **Record** the opening balances in the General Ledger of Hot Doggies as at 1 June 2030.
- b. **Record** the transactions for June 2030 in the General Ledger of Hot Doggies.
- c. Referring to the definitions of the Elements of the reports, **explain** why the cash received from Lynx on 1 June 2030 should **not** be reported as revenue for June 2030.
- d. **Explain** the effect on the Accounting equation of Hot Doggies if the transaction on 6 June 2030 had **not** been recorded.
- *e. **Foot** the accounts and **prepare** a Trial Balance for Hot Doggies as at 12 June 2030.
- f. **State** one error that would cause the Trial Balance to **not** balance.

..



Exercise 3.6

Opening balances in the General Ledger

Paul McMartin is the owner/operator of Bright Camping, a business that sells camping gear. On 1 October 2030, Paul decided to adopt a double-entry recording system. The firm’s balances on that date were as follows: Inventory \$70 000, Accounts Receivable \$34 000, GST receivable \$900, Shop fittings \$17 000, Premises \$100 000, Loan – Highland Bank \$90 000, Accounts Payable \$51 000 and Bank overdraft \$1 000.



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The transactions for October 2030 were as follows:

- Oct. 1 Credit sale to Sleepy Hollow Caravan Park for \$11 000 (including GST) (cost price \$5 000)
- 2 Purchased new shop fittings for \$5 000 (plus GST) using a short-term loan from Punkah Credit Co.
- 3 Received \$8 000 cash from Accounts Receivable (Milawa Adventures)
- 4 Cash sales of \$2 000 (plus GST) (cost price \$1 000)
- 5 Paul paid \$143 (including GST) for the firm's advertising using cash from the owner's bank account
- 6 Purchased camping gear on credit from Hardy Camp Gear for \$12 000 (plus GST)
- 7 Paid wages of \$700
- 8 Received \$4 000 cash from Sleepy Hollow
- 9 Sold inventory on credit to High Peak Adventures for \$3 850 (including GST) (cost price \$1 750)
- 10 Paid \$7 000 to Accounts Payable (Jillaroo's Choice)

Required

- a. **Record** the opening balances in the General Ledger of Bright Camping.
- b. **Record** the transactions for October 2030 in the General Ledger of Bright Camping.
- c. **Explain** the importance of a cross-reference when recording transactions in ledger accounts.
- d. Referring to the definitions of the Elements of the reports, **explain** why the transaction on 7 October 2030 should be reported as an expense.
- *e. **Foot** the accounts and **prepare** a Trial Balance for Bright Camping as at 10 October 2030.
- f. **State** two errors in the General Ledger that will **not** be detected by a Trial Balance.



Exercise 3.7 Identifying transactions

Mira Van Sanden is a photographer who owns and operates a shop in Melbourne called Perfect Photographs. The firm's General Ledger for December 2030 showed the following:



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General Ledger Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 1	Balance	1 000	Dec. 3	Office equipment/GST Clearing	110
2	Sales/GST Clearing	990	Dec. 6	Repairs/GST Clearing	165
7	Accounts Receivable	300			
Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 1	Balance	5 000	Dec. 2	Cost of Sales	600
8	Accounts Payable	800	5	Cost of Sales	400
Accounts Receivable (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 1	Balance	1 700	Dec. 7	Bank	300
5	Sales/GST Clearing	660			

Office equipment (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 1	Balance	4 000	Dec. 4	Drawings	250
3	Bank	100			

Accounts Payable (L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Dec. 1	Balance	1 100
			8	Inventory/GST Clearing	880

GST Clearing (L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 3	Bank	10	Dec. 1	Balance	2 600
6	Bank	15	2	Bank	90
8	Accounts Payable	80	5	Accounts Receivable	60

Capital (Oe)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Dec. 1	Balance	8 000

Sales (R)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Dec. 2	Bank	900
			5	Accounts Receivable	600

Cost of Sales (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 2	Inventory	600			
5	Inventory	400			

Drawings (–Oe)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 4	Office equipment	250			

Repairs (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 6	Bank	150			

Required

- Using the General Ledger, **describe** each transaction (in date order).
- Calculate** the rate of mark-up that is applied to sales of inventory.
- *Prepare** a Trial Balance for Perfect Photographs as at 8 December 2030.
On 9 December 2030, Mira paid \$200 (plus GST) for Office equipment.
The transaction was posted into the General Ledger as follows:

Ledger account	Debit \$	Credit \$
Office equipment	200	
GST Clearing	20	
Bank		220

- State** whether the Trial Balance would identify this error. **Justify** your answer.

- e. **Explain** the effect on the Accounting equation of Perfect Photographs if this error was **not** corrected.
- f. **Show** the debit and credit entries necessary to correct this error.



Exercise 3.8

Transactions to reports

Turning Points is a firm that sells exercise machinery. Its owner, Tracey Nicole, has decided to adopt a double-entry recording system. At 1 July 2030, the firm's assets and liabilities were as follows:

	\$		\$
Accounts Payable	7 500	Inventory	52 000
Accounts Receivable	2 000	Mortgage – JH Finance	85 000
Bank	1 200 DR	Office equipment	10 000
GST Clearing	3 400 CR	Premises	190 000

The firm's transactions for July 2030 showed the following:

July	1	Cash sale to R. Donnegan (cost price \$400)	\$880*
	3	Paid for electricity	\$495*
	6	Credit sales to Lowdown Gym (cost price \$2 700)	\$5 940*
	7	Purchased exercise machinery on credit from Havilland Machines	\$4 400*
	9	Paid wages	\$500
	11	Credit sales to St Martin's Hospital (cost price \$3 500)	\$7 700*
	14	Received cash from Walkers' World for goods sold in June 2030	\$1 600
	17	Paid cash to Havilland Machines	\$1 000
	19	Made monthly payment on mortgage (including \$200 interest)	\$700
	20	Tracey took home an exercise machine for her son	\$600
	23	Paid wages	\$500
	25	Cash sale to J. Notts (cost price \$290)	\$638*
	27	Received cash from Lowdown Gym	\$5 940
	31	Paid for 6 months advertising, which will begin in August 2030	\$6 600*

* Amounts include GST

Required

- a. **Calculate** Tracey's capital as at 1 July 2030.
- b. **Record** the opening balances in the General Ledger of Turning Points.
- c. **Record** the transactions for July 2030 in the General Ledger of Turning Points.
- *d. **Balance** the accounts (where appropriate) and **prepare** a Trial Balance as at 31 July 2030.
- e. Referring to one Accounting assumption, **explain** why the transaction on 14 July 2030 is **not** considered to be revenue for July 2030.
- f. **State** the effect on the Accounting equation of Turning Points if the transaction on 19 July 2030 was not recorded.
- *g. **Prepare** an Income Statement for Turning Points for July 2030.
- *h. **Prepare** a classified Balance Sheet for Turning Points as at 31 July 2030.
- i. Referring to one Qualitative characteristic, **explain** why the advertising must be reported in the Balance Sheet as at 31 July 2030.

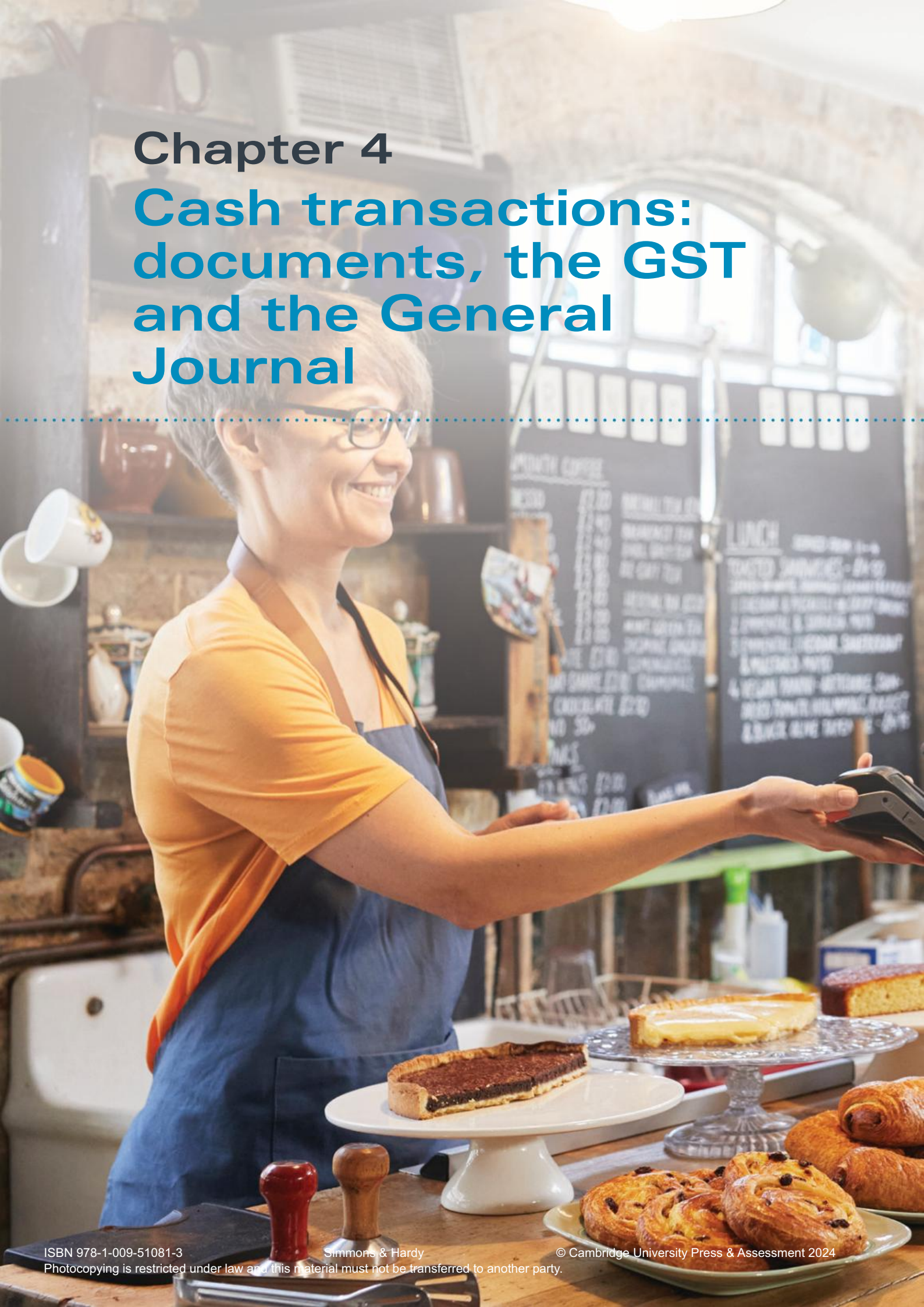


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Chapter 4

Cash transactions: documents, the GST and the General Journal



Learning intentions

After completing this chapter, you should be able to:

- **explain** the role of source documents in the Accounting process, including their relationship to the Qualitative characteristics
- **explain** the effect of the Goods and Services Tax (GST) on the Accounting system of a small business
- **identify** the characteristics of a tax invoice
- **calculate** GST on transactions and the GST balance
- **explain** the role of the GST Clearing account
- **explain** the role of the General Journal
- **identify** cash transactions from source documents
- **record** cash transactions in the General Journal and General Ledger
- **apply** Accounting skills to cash transactions including:
 - cash receipts such as capital contributions and cash sales
 - cash payments such as purchases of inventory, payments for expenses and drawings
- **explain** the effect of cash transactions on the Accounting equation
- **explain** how cash transactions affect the financial reports
- **explain** the circumstances in which a GST refund and GST settlement will occur
- **record** GST refunds and settlements in the General Journal and General Ledger
- **report** GST Clearing in the Balance Sheet
- **discuss** ethical considerations in business decision-making.

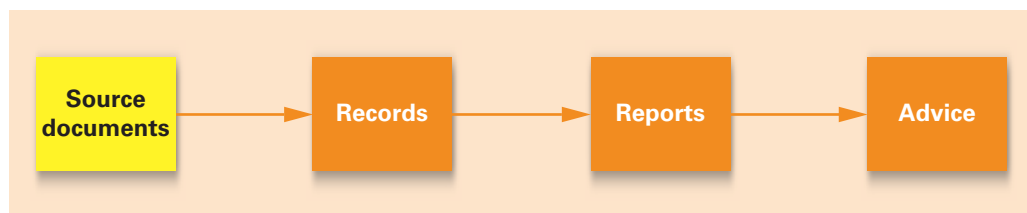
Key terms

After completing this chapter, you should be familiar with the following terms:

- Goods and Services Tax (GST)
- tax invoice
- GST Clearing
- GST settlement
- GST refund
- General Journal
- narration
- cash receipt
- Bank Statement
- EFT receipt
- credit card receipt.



4.1 Source documents and the Goods and Services Tax (GST)



Source documents

With the aim of assisting decision-making, the Accounting process must begin with the raw financial data about the firm's transactions. The exercises in Chapter 3 (involving recording transactions in the General Ledger) were generally presented as a list, with the date and details of the transaction spelt out clearly. This is not a luxury afforded to bookkeepers in real businesses. In a functioning business, the information would be contained on the source documents, and part of the job of the bookkeeper would be to sort the documents and decipher the information they contain.

Source documents come in a variety of shapes and sizes, but they have in common one essential quality: they provide the evidence, or proof, that a transaction has occurred. Source documents are thus the first stage in the Accounting process and provide the facts and details on which all subsequent Accounting information – and decision-making – will be based.

Because source documents provide evidence of the details of every transaction, they are integral to ensuring that the data in the Accounting records is *Verifiable* (that is, supported by evidence and can be checked). In turn, this ensures that the Accounting reports provide a *Faithful representation* of the firm's transactions: complete, neutral (without bias) and free from material error.

Goods and Services Tax (GST)

a 10% tax levied by the federal government on most purchases of goods and services

The Goods and Services Tax

Already important in providing the financial data on which financial information is based, the introduction in July 2000 of the **Goods and Services Tax (GST)** – which applies to most goods (except fresh food) and services – provided an added incentive for the careful use of source documents.

Under the GST, the federal government charges consumers a tax of 10% of the price of whatever they have purchased. However, responsibility for charging the customer – and ultimately collecting the GST from that customer – rests with each business that sells the goods/services. These businesses must therefore charge the customer the selling price *plus* an amount for GST, and at a later date transfer to the Australian Taxation Office (ATO) any overall GST owing.

With this legal responsibility as a tax collector in mind, most businesses are even more interested in source documents to ensure that they pay to the ATO only what they owe.



Source documents and the GST

The source document used to verify a transaction involving the GST is a **tax invoice**. In order to be called a tax invoice and be used to substantiate a GST transaction, a source document must include particular details, including:

- the words 'Tax Invoice' stated clearly
- the name of the seller
- the Australian Business Number (ABN) of the seller
- the date of the transaction
- a description of the good/service provided
- the price of the transaction, including the GST
- the amount of the GST.

Sales of more than \$1 000 must also show the name and address or ABN of the buyer.

All tax invoices are source documents, but not all source documents are tax invoices: only those that contain the information listed above can be called tax invoices and be used to substantiate GST transactions.

Figure 4.1 shows how a tax invoice might show the information listed above.

tax invoice

a source document that contains specific information required by the ATO to substantiate GST amounts

Figure 4.1 Tax invoice

Snaps Photographic Equipment
22 Grace St, Essendon VIC 3041
ABN: 11 049 411 049

TAX INVOICE

Sold to: G. Love
34 Napier St, Essendon, 3041
ABN: 22 654 885 001

12 March 2030
Terms: Cash only
Rec. 06

Item	Quantity	Unit Price	Total
Brixol Camera stand (BR101)	2	90	180.00
GST (10%)			18.00
Total			\$198.00
Amount paid			198.00
Balance owing			nil

Study tip

The business named at the top of the source document is always the seller – the business providing the goods and/or service.

This tax invoice is a cash receipt issued by Snaps Photographic Equipment for a cash sale to G. Love, which included \$18 GST.

Without all these important details, a source document cannot be classified as a tax invoice and therefore cannot be used to substantiate GST transactions, and the business may end up owing the ATO more GST than is required.

As a result, the GST source documents – already important in providing details and evidence of transactions – have become more significant.



Review questions 4.1

- 1 Referring to the Qualitative characteristics, **explain** the role of source documents in the Accounting process.
- 2 **Define** the term ‘Goods and Services Tax (GST)’.
- 3 **List** the information that must be shown on a source document to substantiate GST.
- 4 **Explain** the importance of source documents for a small business when Accounting for the GST.



4.2 Calculating GST

At the end of the Period, each business must calculate how much GST overall it owes to the ATO, or whether it is owed a refund by the ATO. This means the Accounting system must be capable of identifying, calculating, recording and reporting the effects of GST.

Calculating GST

Although a tax invoice must specify the amount of the GST, it is still useful to understand the relationship between:

- the **selling price** of the good/service (*excluding GST*)
- the **GST** itself
- the **total price** of the transaction (*including GST*).

In its simplest form, **GST** is calculated as 10% of the **selling price** and added to the **selling price** to determine the **total price**, as shown in Figure 4.2.

Study tip

Use this method when a question says ‘plus’ GST.

Figure 4.2 Calculating GST and total price (including GST)

Selling price	+	GST (selling price ×10%)	=	Total price (including GST)
\$350	+	\$35	=	\$385

At other times, it may be necessary to work *backwards* from the **total price**, to determine either the **GST** (1/11 of the **total price**) or the **selling price** (10/11 of the **total price**). Figure 4.3 shows this relationship.

Study tip

Use this method when a question says ‘including’ GST.

Figure 4.3 Calculating GST or selling price from total price

Total price (including GST)	=	Selling price (10/11 of total price)	+	GST (1/11 of total price)
\$385	=	\$350	+	\$35

GST balance

When a business charges its customers GST, it does so on behalf of the government. As a result, any GST on sales creates a liability as the GST is owed to the ATO.

However, if the business has been charged any GST by its *own suppliers*, it is allowed to *deduct* this GST on purchases from its GST liability. That is, because the GST charged on its purchases will be forwarded to the ATO by *the firm’s suppliers*, it is treated as if the business had paid the GST straight to the ATO.

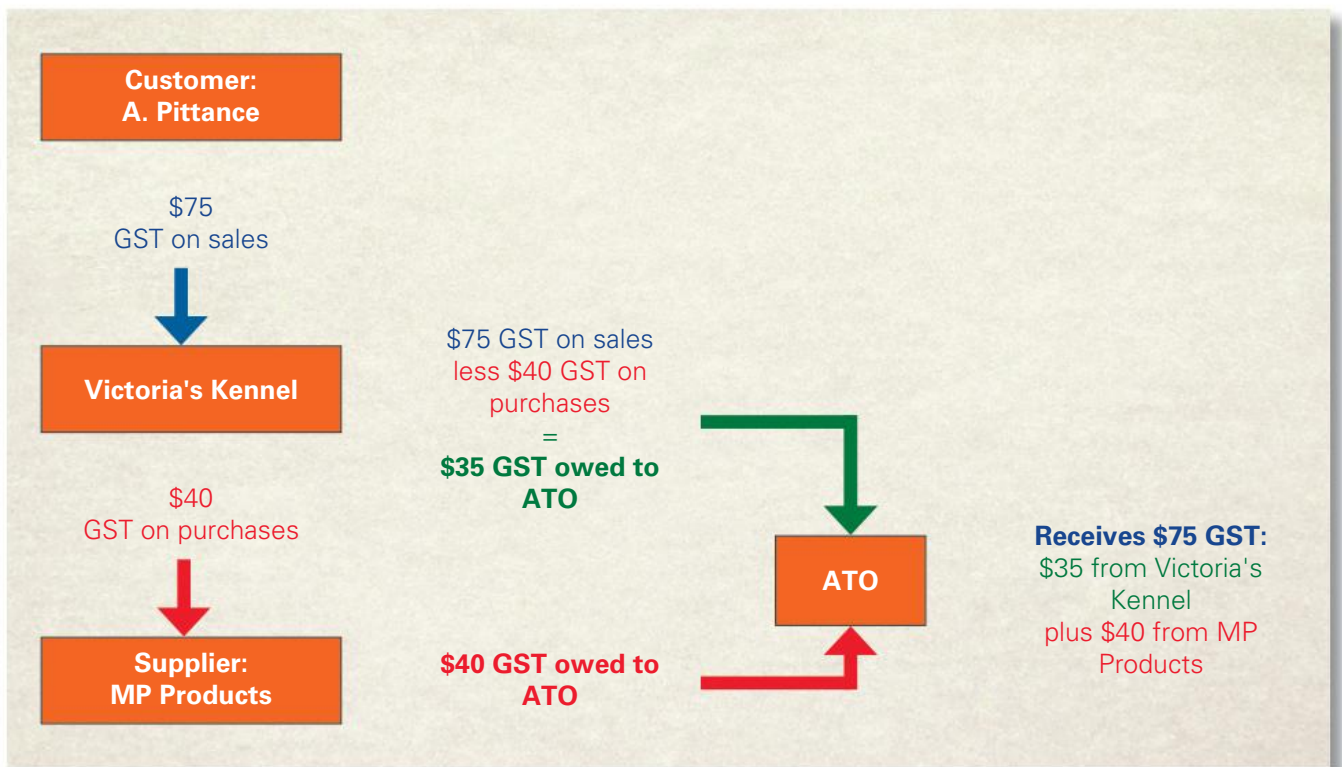
Victoria's Kennel sells clothing for dogs, and during March 2030 the following transactions occurred:

- Purchased goods for sale from MP Products for \$400 plus \$40 GST
- Sold goods to A. Pittance for \$750 plus \$75 GST

Example

The GST 'flows' for this business are shown in Figure 4.4.

Figure 4.4 GST flows

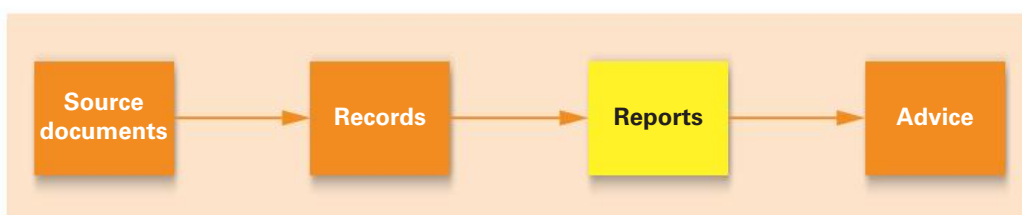


In this case, despite charging **\$75 GST on sales** to its customer (A. Pittance), Victoria's Kennel would only **owe \$35 GST** to the ATO, as the **\$40 GST on its purchases** will be transferred to the ATO by the supplier, MP Products (ensuring the ATO will still ultimately receive the full **\$75 GST on sales**).

The overall amount owed to the ATO for GST is thus determined as:

$$\text{Overall GST owing} = \text{GST on sales} \text{ less } \text{GST on purchases}$$

Reporting GST



As noted in Chapter 3, all transactions involving GST are recorded in a ledger account called GST Clearing (covered in detail throughout this chapter), but the overall GST balance may be reported as either a current liability or a current asset.

GST liability

Because selling prices are usually higher than cost prices, in most cases the **GST on sales** will be *greater than* the **GST on purchases**. This means that, overall, the business will owe GST to the ATO.

As a result, its Balance Sheet will report GST as a *current liability*: a present obligation of the entity (as the GST owing to the ATO *must* be paid) to transfer an economic resource (cash) as a result of a past event (or in this case events) involving GST. This GST liability must be paid at some time in the future by making a **GST settlement**.

GST settlement
a cash payment to the ATO to settle a GST liability from a previous period

GST asset

If the business makes a bulk order of inventory that it has not yet sold or purchases an expensive non-current asset, then its **GST on purchases** could be *greater than* its **GST on sales**, meaning the ATO actually owes GST to the business.

In this case, the business will have a *current asset* in relation to GST: a present economic resource (cash to be received from the ATO) controlled by the entity (as the business has a right to claim the cash) as a result of a past event. This GST owed to the business by the ATO will be received at some time in the future as a **GST refund**.

GST refund
a cash receipt from the ATO to settle a GST asset from a previous period

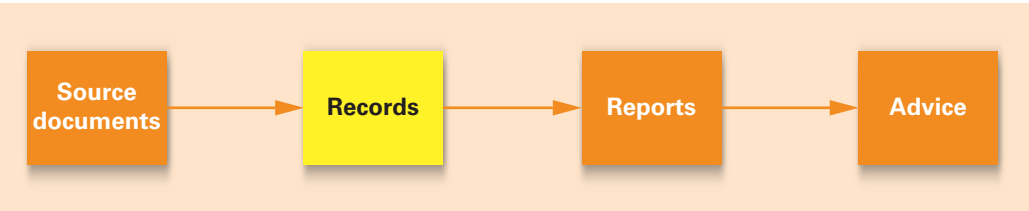


Review questions 4.2

- Show** how the GST will affect the calculation of:
 - total price when given selling price
 - selling price/GST when given total price.
- Explain** why GST on sales creates a GST liability.
- Explain** why GST on purchases leads to a reduction in any GST liability.
- Explain** why most small businesses will end up with a GST liability at the end of the period.
- Define** the term ‘GST settlement’.
- State** two ways a small business could end up being owed a GST refund by the ATO.
- Define** the term ‘GST refund’.



4.3 The General Journal



If we return to the Accounting process, there is a clear need to connect the important financial *data* contained on source documents with the recording that takes place in the General Ledger, so that the reports that are generated provide financial information that is both *Relevant* and a *Faithful representation* of the firm’s financial situation and performance. The General Journal provides this connection.

The **General Journal** records each transaction before it is posted to the General Ledger, allowing for the identification of the source document that verifies the transaction and an analysis of how the transaction affects the General Ledger.

Format of the General Journal

All transactions must be recorded in the General Journal before they are posted to the General Ledger, and because the General Journal is used to record a variety of transactions, it must have a fairly simple format. As a result, it has columns for Date and Details, a Debit column and a Credit column to record amounts, as is shown in Figure 4.5:

Figure 4.5 The General Journal

General Journal			
Date	Details	Debit \$	Credit \$

The most obvious and immediate thing to notice is how closely the General Journal resembles the Analysing Charts we used when learning the ledger recording process (in Chapter 3). Basically, transactions are recorded in date order (as they occur), with the details column used to record the name of each ledger account affected by the transaction. The amount is then recorded in the debit or credit column as is necessary. By convention, the debit entries are recorded first, followed by the credit entries, with the name/s of the account/s to be credited indented slightly.

The key thing to remember about the debit and credit columns in the General Journal is that, for each transaction, the debit entries must equal the credit entries. If the transaction does not balance in the General Journal, it cannot balance when it is posted to the General Ledger.

Narrations

Because the General Journal records a wide variety of transactions, it is necessary to give a brief description of the transaction immediately after recording the debit and credit entries. This description is known as a **narration**, which should 'tell the story' of what has happened and also note the source document involved.

The next section considers some specific transactions, the source documents used to verify their details, and how they would be recorded in the General Journal and General Ledger.

General Journal

an Accounting record used to analyse and record each transaction, and to identify its source document before posting to the General Ledger

Study tip

Some businesses use special journals to summarise similar transactions before posting to the General Ledger, but Units 3 and 4 of the VCE Accounting course – and many types of Accounting software – use only a General Journal.

narration

a brief description of a transaction recorded in the General Journal, including a reference to the relevant source document



Review questions 4.3

- 1 Explain** the role of the General Journal in an Accounting system.
- 2 Explain** how the rules of double-entry Accounting apply to the General Journal.
- In relation to the General Journal, **explain** the purpose of a narration.





4.4 Cash receipts

cash receipt

a source document used to verify cash received

Study tip

In Accounting, the word 'receipt' is used interchangeably to refer to both an inflow of cash *and* the document used to verify that inflow of cash.

Example

On 1 January 2030, Darryn Bull opened a business **bank** account in the name of 'ST.J Clothing', depositing \$50 000 of his **own money** to get the business started (Rec. 001).

Study tip

When interpreting a source document, always start by identifying the business for whom you are Accounting.

When a business receives cash, it must be able to verify how much cash has been received, from whom and for what purpose, and this will mean it needs to generate a **cash receipt**.

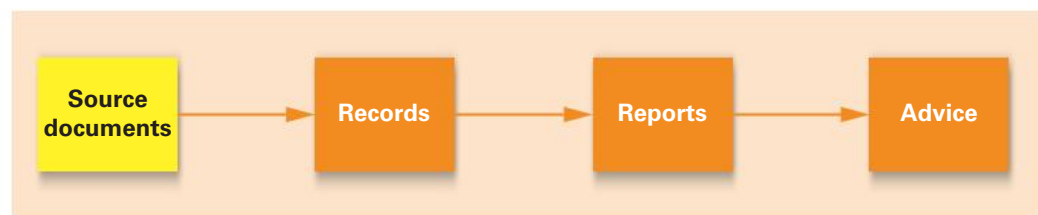
When cash is received, the business will issue a cash receipt to the customer or entity who has contributed the cash, and the business will keep a copy of the receipt for its own records.

Depending on the type of transaction, the receipt could take the form of:

- a written or electronic cash receipt (or cash register roll)
- an EFT (Electronic Funds Transfer) receipt
- a credit card receipt
- a Bank Statement.

Some businesses will not issue an individualised receipt to every customer, preferring instead to issue only a cash register receipt and rely on the summary generated by the register to verify the cash received in a single day's trading.

Source documents



In this example, there is no GST to account for (as there has been no sale or purchase), so a handwritten receipt for this cash contribution by the owner might appear as is shown in Figure 4.6.

Figure 4.6 Cash receipt: handwritten

ST.J Clothing
102 Kareela Rd Frankston 3199
ABN: 25 014 332 980

Rec. 001
Received from D. Bull
The amount of Fifty thousand dollars
Being for Capital contribution by owner

1 January 2030

Amount \$ 50 000.00

Study tip

Because they are issued by the business, the 'receipt numbers' of cash receipts like this will run in sequence.

As with all documents, the name of the seller – ST.J Clothing – appears at the top of document. When combined with the other information, such as the document number (Rec. 001) and the description that identifies that cash has been 'Received from' someone (D. Bull), we can identify that this is cash received by ST.J Clothing. The reason for the receipt of cash is noted as 'Being for' a **capital contribution**, allowing an identification of what kind of transaction has occurred and therefore in what accounts this transaction will be recorded in the General Ledger.

Alternatively, a cash transfer this large might be made using EFT (Electronic Funds Transfer), meaning the cash is transferred electronically – using phone or internet banking – with the **EFT receipt** appearing as shown in Figure 4.7.

EFT receipt

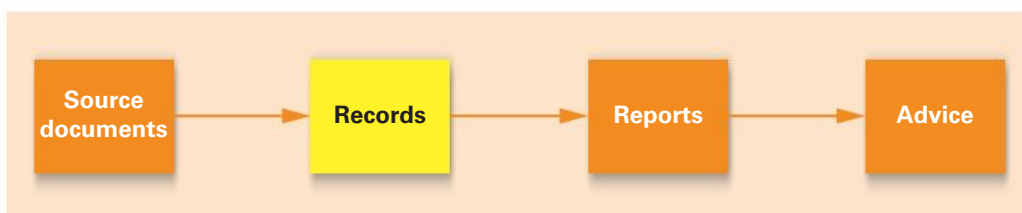
a source document used to verify a cash transfer received via Electronic Funds Transfer

Figure 4.7 Cash receipt: EFT

Bank of Karingal Your local bank 	
Funds transfer report: STJ Clothing (A/c: 332 001 454)	
From	D and M Bull
Bank name	JPC Bank (Aus.)
A/c:	209 336 524
Date of deposit	1 / 1 / 30
Amount	\$50000
Payee reference	001

In this case, the document is issued by the Bank of Karingal, and ST.J Clothing is identified as the account holder who has received cash as a **deposit** from the account of 'D and M Bull' (and we know that D. Bull is the owner).

Recording: General Journal



If a cash receipt is the source document, it means cash has been received, and in terms of the General Ledger this means the **Bank** account must be **debited** to recognise this increase. The other entry must therefore be a credit entry, depending on the type of cash receipt. In this case, because of the Accounting entity assumption, the **Capital** account must be **credited** to show the increase in the owner's equity.

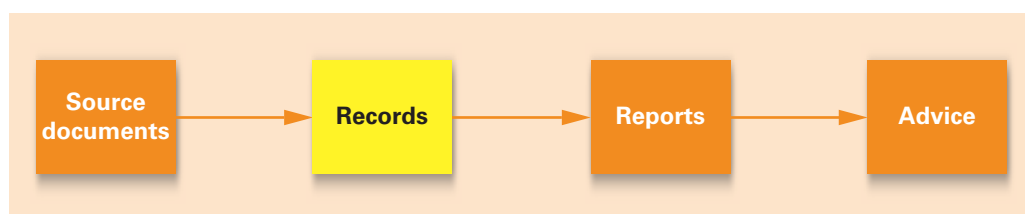
This would be recorded in the General Journal as is shown in Figure 4.8.

Figure 4.8 General Journal: cash capital contribution

General Journal			
Date	Details	Debit \$	Credit \$
January 1	Bank	50 000	
	Capital		50 000
	Cash contribution by the owner to commence business operations (Rec. 001)		

As noted above, the General Journal shows the accounts that must be debited (*Bank*) and credited (*Capital*), with the debit entry recorded first and the name of the account to be credited indented slightly. The *narration* listed underneath provides a brief description of the transaction and also notes the source document (*Rec. 001*) so that the transaction can be traced and therefore verified if required.

Recording: General Ledger



Following its recording in the General Journal, the transaction would be posted to the General Ledger as is shown in Figure 4.9.

Figure 4.9 General Ledger: cash capital contribution

General Ledger Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1	Capital	50 000			

Capital (Oe)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Jan. 1	Bank	50 000

Other receipts of cash

Some form of cash receipt should be issued every time cash is received, and other transactions resulting in an inflow of cash and increase in Bank might include:

- cash received from a loan
- cash received from Accounts Receivable
- interest received
- cash sales with GST.

Of these, the first three cash flows are not subject to GST, so the receipts listed above are likely to be sufficient. However, where a cash sale occurs and GST is involved, more information is required.



Review questions 4.4

- 1 **State** the source document used to verify cash received and **list** three different types of this document.
- 2 **Show** the General Journal entries to record a contribution of cash by the owner.
- 3 **List** three different transactions for which a cash receipt may be issued.



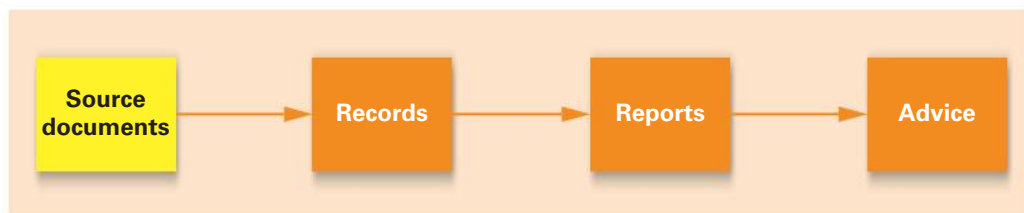
4.5 Cash sales and the GST

While receipts like those shown are sufficient for verifying the amount of cash received, they are insufficient to substantiate GST as they do not meet the requirements of a tax invoice. The receipt for a cash sale of inventory must therefore include more information if it is to be used to verify the amount of GST received from customers and thus owed to the ATO.

On 7 April 2030, Snaps Photographic Equipment sold a Menolta camera to J. Mortlock for \$400 plus \$40 GST (Rec. 17). The camera had a cost price of \$250.

Example

Source documents



At the time a cash sale is made, the business will receive the cash for the inventory plus the GST on the sale, and this must be documented on the tax invoice / cash receipt such as the examples shown in Figures 4.10 and 4.11.

Figure 4.10 Cash receipt (handwritten): cash sale with GST

Snaps Photographic Equipment
 22 Grace St, Essendon VIC 3041
 ABN: 11 049 411 049

TAX INVOICE

Date: 7/4/2030
Received from: J. Mortlock
The sum of: Four hundred dollars plus forty dollars GST
Being for: Cash sale – Menolta camera
Amount: \$440.00
Signed: J. Buckley

Receipt: 17



Video 4.1
Recording a cash sale in the General Journal

Figure 4.11 Cash receipt (electronically generated): cash sale with GST

Snaps Photographic Equipment



22 Grace St, Essendon VIC 3041
ABN: 11 049 411 049

TAX INVOICE
Receipt: 17
Date: 7/4/2030
Received from: J. Mortlock
For: Cash sale of 1 Menolta camera
Total Amount: **\$440.00**
GST: **\$40.00** (inclusive)

Study tip

As with all documents, the name of the seller is listed at the top.

Both documents meet the requirements of a tax invoice as noted in Section 4.1, and include:

- the words 'Tax invoice'
- the date of the transaction (7/4/2030)
- the receipt number (17)
- the name and ABN of the seller (Snaps Photographic Equipment, 11049411049)
- a description of what has been sold (one Menolta camera)
- the selling price inclusive of the GST (**\$440**). This is the total **cash received**.
- the amount of the GST (**\$40**) . This means the **selling price** of the camera is **\$400**.

Note how the **Sales revenue** figure is identified differently in each document. Whereas Figure 4.10 separately identifies the sales revenue of **\$400**, in Figure 4.11 this amount is not identified and must be calculated by deducting the GST (**\$40**) from the total amount received **\$440**.

(The **\$250 cost price** of the sale is not shown on the cash receipt because Snaps Photographic Equipment does not want to disclose its mark-up to the buyer: doing so would undermine the buyer's satisfaction with the selling price, leading to a demand for a lower selling price or a desire to look for a cheaper supplier.)

Credit card sales

Although called a 'credit' card sale, such a transaction is for all intents and purposes the equivalent of a cash sale and treated as such, because the receipt of cash from the credit card company is all but assured (even if it is delayed by a day or so).

Had the sale been made by credit card, the **credit card receipt** might appear as is shown in Figure 4.12.

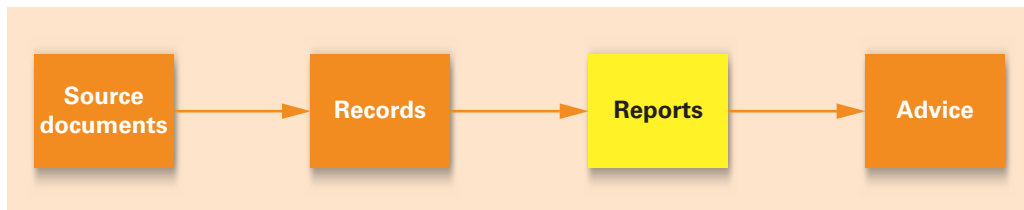
Figure 4.12 Credit card receipt: cash sale with GST

Snaps Photographic Equipment	
22 Grace St, Essendon VIC 3041	
ABN: 11 049 411 049	
7 April 2030 15:26 pm	
Account: 4xxx xxx xxx 4546	CR
Menolta Camera	400.00
GST (10%)	40.00
Total	440.00
Rec. 17	
Thank you for your business!	

If the credit card receipt did not include the required GST information, an additional cash receipt (such as those shown in Figure 4.10 and 4.11) would still be required as a tax invoice.

Other systems like Paypal, Google Wallet, Intuit, Square, SecurePay (there are many!) may differ in terms of specific logistics – and service fees – but the same basic accounting requirements remain: if cash has been received, some type of receipt must be generated; if GST is involved, a document meeting the demands of a tax invoice is required.

Recording: General Journal



All of the preceding documents identify the **\$440** total cash that Snaps Photographic Equipment has received from the customer, and this is the amount that will be **debited** to the firm's **Bank** account. (If the cash had been received electronically, this is the amount that would appear on the EFT receipt or in the Bank Statement.)

However, this total cash received includes **\$40 GST** on the sale, an amount that is collected on behalf of, and therefore owed to, the ATO. This amount must therefore be **credited** to the **GST Clearing** account to recognise that Snaps Photographic Equipment now has a liability – a present obligation to transfer (to the ATO) an economic resource (cash) as a result of the GST that it has collected from sales.

Consequently, of the **\$440 cash received** by Snaps Photographic Equipment, only **\$400** can be **credited** to the **Sales revenue** account as **revenue earned** by Snaps Photographic Equipment.

Finally, as is the case for any sale, **Cost of Sales** must be **debited** to recognise the expense incurred when the inventory is sold, and **Inventory** must be **credited** to record the decrease in this asset, both using the **cost price** of **\$250**.

Figure 4.13 shows how this cash sale with GST would be recorded in the General Journal.

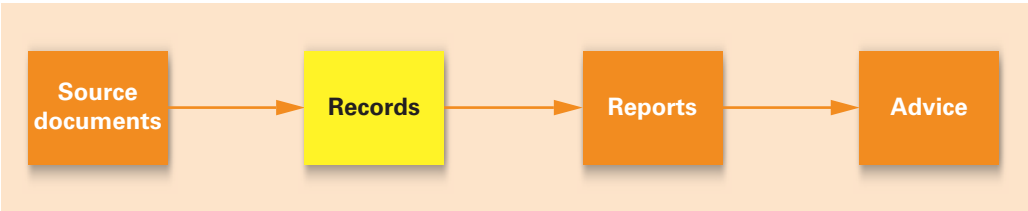
Figure 4.13 General Journal: cash sale with GST

General Journal			
Date	Details	Debit \$	Credit \$
April 7	Bank	440	
	Sales		400
	GST Clearing		40
	Cost of Sales	250	
	Inventory		250
	Cash sale of one Menolta camera (Rec. 17)		

Note that the narration is brief but still describes the transaction (a cash sale), what has been sold and how many (one Menolta camera), and the source document (Rec. 17) so that the transaction can be verified.

Also note that this entry shows that GST does **not** affect profit, as the **cost price** of the sale (\$250) is not affected by the GST, and neither is the **Sales revenue** earned (\$400): Gross Profit on this sale would still be \$150, with or without the GST.

Recording: General Ledger



The cash sale with GST would be recorded in the General Ledger as shown in Figure 4.14:

Figure 4.14 General Ledger: cash sale with GST

General Ledger					
Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 1	Balance	1 000			
7	Sales / GST Clearing	440			
Sales (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			April 7	Bank	400
GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			April 7	Bank	40
Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 1	Balance	15 000	April 7	Cost of Sales	250
Cost of Sales (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 7	Inventory	250			

The cross-reference in the Bank account refers to both **Sales** and **GST Clearing** because the \$440 cash received includes both \$400 **Sales** and \$40 **GST**. However, in the Sales and GST Clearing accounts the only cross-reference is Bank: both accounts are connected to Bank (for the cash received) but not to each other.

Effect on the Accounting equation

A cash sale with GST thus has the following effect on the Accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Increase (Increase Bank \$440 , decrease Inventory \$250)	190
Liabilities	Increase (GST Clearing)	40
Owner's equity	Increase (Sales \$400 less Cost of Sales \$250 = Profit)	150



Review questions 4.5

- 1 **Explain** why a Bank Statement or EFT receipt may be insufficient to substantiate GST.
- 2 **Explain** why a receipt for a cash sale must also be a tax invoice.
- 3 **Show** the General Journal entries to record a cash sale with GST.
- 4 **Explain** why the GST received on a cash sale increases the GST liability.
- 5 **Explain** the effect of 'GST on sales' on:
 - Revenue earned
 - Cost of Sales
 - Gross Profit.
- 6 **Show** the effect on the Accounting equation of a cash sale with GST.



4.6 Cash payments

Similar to cash received, when a business *pays* cash, it must be able to verify how much cash has been paid, to whom and for what purpose, and this will mean it needs to generate a source document.

For many years, businesses used only cheques to make cash payments as they were secure, traceable and verifiable, and even today some suppliers still require payment by cheque. In such cases, a **cheque butt** was retained by the business as evidence of the cash it had paid. However, the Australian Government will phase out cheques from the Australian financial system by 2030, and as such, we will not be referring to this form of payment in this text.

Today, business owners can make payments in numerous ways, including online (via EFT), by business credit card or even by withdrawing cash via an ATM (Automatic Teller Machine). As a result, it is necessary to be able to account for cash payments made by many means. Depending on the type of transaction, the payment could be verified by:

- an EFT payment or ATM withdrawal receipt
- a Bank Statement.

Thankfully, although the documents may differ, the recording remains the same.

cheque butt

a source document used to verify a cash payment made by cheque

Study tip

Cheques are no longer covered as part of the VCE Accounting Study Design but can be recorded using the same Accounting processes.

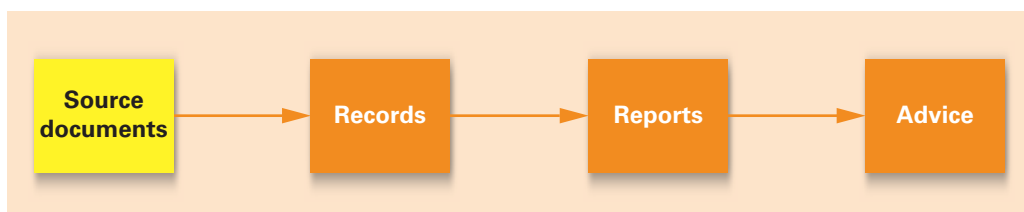
During March 2030, HD Fitness Gear made the following cash payments:

March 6 Paid \$350 cash to an employee (Sam Oliver) for weekly wages (EFT 245)

March 8 The owner (Hannah Dow) withdrew \$100 from the business bank account for her personal use (ATM Ref. 613)

Example

Source documents



There is no GST to account for in either of these transactions, but the payments have been made using different methods, so their source documents will differ.

The EFT payment receipt to verify the cash payment of **Wages** on 6 March 2030 might appear as is shown in Figure 4.15.

Figure 4.15 Cash payment: EFT payment receipt

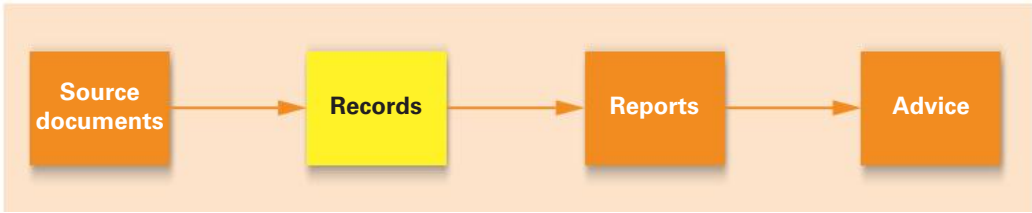
RDO Banking Co.	
Your local bank HD Fitness Gear (A/c: 304 115 622)	
Funds transfer	
Date	6/3/2030
To	S. Oliver A/c: 313 600 116
Notes	Wages (week ending 6/3/2030)
Amount	\$350
Reference	245

The ATM document to verify the cash **drawings** by the owner on 8 March 2030 might appear as is shown in Figure 4.16.

Figure 4.16 Cash payment: ATM document

RDO Banking Co. Your local bank HD Fitness Gear (A/c: 304 115 622)		
DATE	TIME	ATM ID
8/03/2030	11:14am	54012
CARD:	 841	
REF. NO.:	 613	
WITHDRAW FROM:	Savings Account	
AMOUNT:	 \$100.00	
BALANCE	 \$4 650	
PLEASE RETAIN OR DISPOSE OF THOUGHTFULLY		

Recording: General Journal



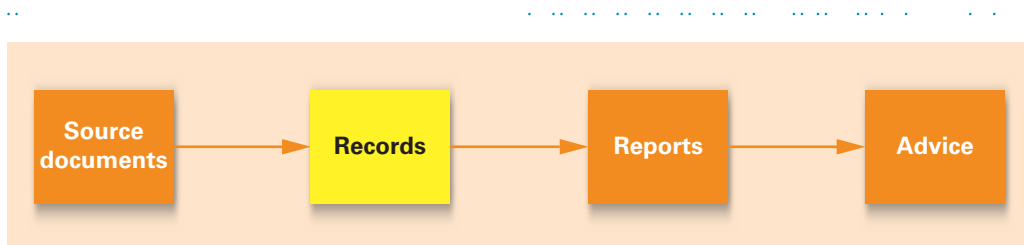
Because these transactions are both payments, each will result in a **credit** to the **Bank** account, and this is true of all cash payments. The other General Ledger entries must therefore be debit entries.

In these examples, the **Wages** account must be debited on 6 March 2030 to recognise the expense, and the **Drawings** must be debited on 8 March to recognise the decrease in owner's equity. Figure 4.17 shows the General Journal entries to record these two transactions.

Figure 4.17 General Journal: cash payments

General Journal			
Date	Details	Debit \$	Credit \$
March 6	Wages	350	
	Bank		350
	Cash payment of wages to S. Oliver (EFT 245)		
March 8	Drawings	100	
	Bank		100
	Cash drawings by owner – H. Dow (ATM Ref. 613)		

Recording: General Ledger



Following its recording in the General Journal, the transactions would be posted to the General Ledger as is shown in Figure 4.18.

Figure 4.18 General Ledger: cash payments

General Ledger					
Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Mar. 1	Balance	5 100	Mar. 6	Wages	350
			8	Drawings	100
Wages (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Mar. 6	Bank	350			
Drawings (–Oe)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Mar. 8	Bank	100			

Other cash payments

Some form of cash document should be collected every time cash is paid, and where no GST is applied the documents above will be sufficient as they identify the date, amount and purpose of each cash payment. In addition to payments for Wages and Drawings, other cash payments for which these documents may be sufficient include:

- cash paid for loan repayments
- cash paid to Accounts Payable
- interest expense paid.

However, cash payments involving the GST – for inventory and most expenses – require more information to be provided, meaning additional documentation is required.



Review questions 4.6

- 1 List** two different source documents that could be used to verify cash paid.
- 2 Show** the General Journal entries to record a cash payment for:
 - Wages
 - Drawings.
- 3 List** three different transactions for which cash may be paid without GST.



4.7 Cash payments and the GST

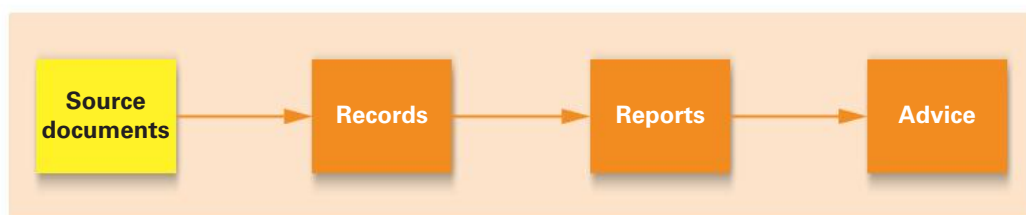
When a business pays cash for inventory or an expense that is subject to GST, it must pay for whatever it is purchasing *plus* the GST on the purchase. The GST paid does not change the value of what is purchased (the inventory or the expense), but it will increase the amount of cash paid out of the Bank account. It will also decrease the GST liability owed to the ATO as the ATO is due to receive this amount from the supplier at some point in the future.

Example

On 14 September 2030, Nina's Stationery made a cash payment of **\$1 320** to TLA Suppliers for **\$1 200** worth of inventory (40 boxes of gold paper) plus **\$120** GST (EFT 1105).



Source documents



The EFT payment receipt that provides evidence of this payment is shown in Figure 4.19.

Figure 4.19 EFT payment receipt: cash payment with GST

Bentleigh Bank	
Acc: 510 115 622	
Electronic Funds Transfer	
Date	14-09-2030
Amount	\$1 320
To	TLA Suppliers Acc: 65 220 108
Notes	Inventory as per invoice
Reference	1105

Although the EFT payment receipt would provide the information needed to record the cash paid, in order to satisfy the ATO about the GST involved, Nina's Stationery would also need to keep the tax invoice issued by TLA Suppliers. Figure 4.20 shows how this tax invoice might appear.

Figure 4.20 Tax invoice: cash purchase of inventory with GST

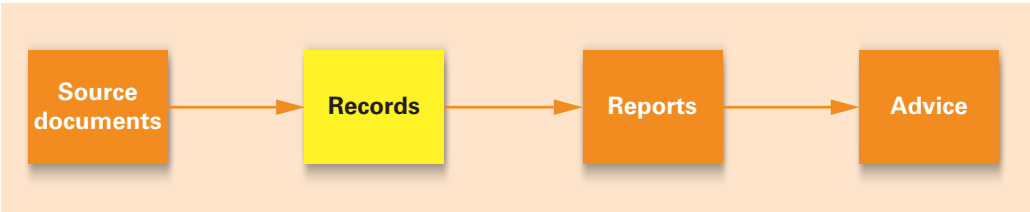
 TLA Suppliers (Rec. 135) 32 Dinah Parade, Keilor East VIC 3033 ABN: 63 552 412 100			
Sold to: Nina's Stationery ABN: 22 654 885 001			
Tax invoice 14 September 2030			
Items	Quantity	Unit Price	Total
Gold paper (box of 5 reams)	40	30	1 200.00
Plus GST (10%)			120.00
Total			\$1 320.00
Amount paid (EFT 1105)			\$1 320.00
Balance owing			nil



Video 4.2
Recording a cash payment (with GST) in the General Journal

The seller in this case is TLA Suppliers, hence this is the name that appears at the top of the document. Nina's Stationery appears in the middle as the business who the goods were 'Sold to'. The document identifies itself as both a tax invoice and a receipt (Rec. 135) for TLA Suppliers, but the payment details in the bottom right-hand corner confirm that, for Nina's Stationery, this is a payment, as the 'Amount paid (EFT 1105)' is **\$1 320**, and this leaves the 'Balance owing' as **nil**. The 'Items' also confirm what has been purchased (gold paper), which, in a business such as Nina's Stationery, is **Inventory** – goods that it has purchased to sell.

Recording: General Journal



With GST involved, a total of **\$1 320** is paid, and this must be **credited** to the **Bank** account.

At the same time, **Inventory** must be **debited \$1 200** to recognise the asset that Nina’s Stationery has acquired. The GST does not affect the value of the inventory itself: as an asset, it remains an economic resource controlled by Nina’s Stationery as a result of (this) past event, and the potential of the inventory to produce economic benefits (through its sale) is unchanged.

Instead, **GST Clearing** must be **debited \$120** to recognise that as a consequence of paying GST to its supplier (TLA Suppliers), the GST liability of Nina’s Stationery will decrease. That is, because the \$120 GST must be forwarded to the ATO *by TLA Suppliers*, it is no longer owed to the ATO *by Nina’s Stationery*.

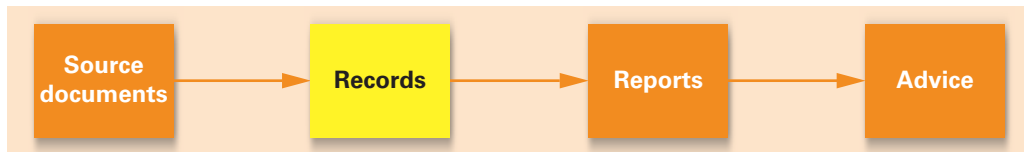
As a result, the debits and credits to record a cash payment with GST would be as shown in Figure 4.21.

Figure 4.21 General Journal: cash payment with GST

General Journal			
Date	Details	Debit \$	Credit \$
Sept. 14	Inventory	1 200	
	GST Clearing	120	
	Bank		1 320
	Cash purchase of inventory (gold paper – 40 boxes) from TLA Suppliers (EFT 1105)		

In terms of a narration, some transactions involving Inventory will require that the type and number of the inventory items involved are identified, and this detail has been provided in this example. However, there will be transactions where it is impractical to itemise each and every line and quantity of inventory. In cases such as these, the actual source document can be used to provide this extra level of detail.

Recording: General Ledger



Following its recording in the General Journal, the transactions would be posted to the General Ledger as shown in Figure 4.22.

Figure 4.22 General Ledger: cash payment with GST

General Ledger Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 1	Balance	5 100	Sept. 14	Inventory / GST Clearing	1 320

Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 1	Balance	30 000			
14	Bank	1 200			

GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 14	Bank	120	Sept. 1	Balance	2 000

Once again, the cross-reference in the Bank account refers to both **Inventory** and **GST Clearing** as both amounts have been paid, but the cross-reference in the Inventory and GST Clearing accounts is simply Bank.

Effect on the Accounting equation

This cash payment for inventory with GST has the following effect on the Accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Decrease Bank \$1 320 , increase Inventory \$1 200)	120
Liabilities	Decrease (GST Clearing)	120
Owner's equity	No effect	

Study tip

As with cash receipts, transactions that are subject to GST will be identified, but the amount may not be.



Review questions 4.7

- 1 Explain** why an EFT payment receipt may be insufficient to substantiate GST for a cash payment.
- 2 Show** the General Journal entries to record a cash purchase of inventory with GST.
- 3 Explain** how the GST on a cash purchase of inventory affects the value of Inventory.
- 4 Explain** why the GST paid on a cash purchase of inventory decreases the GST liability.
- 5 Show** the effect on the Accounting equation of a cash purchase of inventory with GST.



4.8 The GST Clearing account

At the end of the current period, the GST Clearing account must be balanced and reported as either a current asset or a current liability, depending on whether it has a debit balance or a credit balance. After the end of its Business Activity Statement (BAS) period, when it must complete and submit its BAS, each business must then pay any GST owing to the ATO as a GST settlement or will receive a GST refund from the ATO for excess GST.

GST Clearing: current liability

Because selling prices are usually higher than cost prices, in most cases GST on sales will be *higher* than GST on purchases. This will mean the GST Clearing account will often have a credit balance, so the business will have a GST liability.

Example

Casee's Cosmetics started trading on 1 June 2030, and after recording the transactions for June and balancing the ledger, its GST Clearing account showed the following:

GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 8	Bank	11	June 2	Bank	42
12	Bank	25	5	Bank	39
16	Bank	80	15	Bank	80
23	Bank	12	28	Bank	120
29	Bank	32			
30	Balance	121			
		281			281
			July 1	Balance	121

The credit entries in this account would be the result of cash sales involving GST, while the debit entries would be the result of cash payments for inventory and expenses that involved GST.

The **credit** balance of **\$121** indicates that as at 30 June 2030 this account is a *current liability*: GST on sales (\$281) is greater than GST on purchases (\$160), so the business owes **\$121** to the ATO.

GST Clearing would thus be reported in the Balance Sheet of Casee's Cosmetics as at 30 June 2030 with its other current liabilities, such as Bank overdraft and Accounts Payable, as a present obligation (to the ATO) to transfer economic resources (cash) that is reasonably expected to be settled sometime within the next 12 months (when the business pays the GST owing).

GST settlement

Assuming 30 June 2030 is the end of its BAS period, during July 2030 Casee's Cosmetics would be required to make a payment of **\$121** to the ATO to 'settle' this GST liability. This payment is known as a **GST settlement**, which reduces the GST liability by paying to the ATO the amount owing from last period.

On 3 July 2030 Casee's Cosmetics paid the GST owing to the ATO (EFT 241).

**Example
(continued)**

This GST settlement would be recorded in the General Journal as is shown in Figure 4.23.

Figure 4.23 General Journal: GST settlement

General Journal			
Date	Details	Debit \$	Credit \$
July 3	GST Clearing	121	
	Bank		121
	GST settlement paid to ATO for balance owing as at 30 June 2030 (EFT 241)		

The GST Clearing account of Casee's Cosmetics would now appear as shown in Figure 4.24.

Figure 4.24 GST Clearing account: GST settlement

GST Clearing (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 8	Bank	11	June 2	Bank	42
12	Bank	25	5	Bank	39
16	Bank	80	15	Bank	80
23	Bank	12	28	Bank	120
29	Bank	32			
30	Balance	121			
		281			281
July 3	Bank	121	July 1	Balance	121

Note that although the GST settlement is paid, it is paid *to the ATO*, to *settle the GST liability* accrued in *previous periods*. This differs from the GST paid *to suppliers*, for *purchases and expenses*, on payments made in the *current period*. As a result, it must be reported separately in the Cash Flow Statement (as will be explained in Chapter 11).

GST Clearing: current asset

If the GST on sales is *less* than the GST on purchases, the GST Clearing account would have a debit balance. This could be the result of purchasing more inventory than has been sold, or purchasing non-current assets during the period.

Example

During March 2030, Mack 'n' Roe Tennis Gear made a bulk purchase of inventory and paid for a number of non-current assets. At the end of March 2030, its GST Clearing account showed the following:

GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
March 4	Bank	120	March 1	Balance	130
7	Bank	350	6	Bank	35
16	Bank	41	19	Bank	40
22	Bank	29	23	Bank	26
28	Bank	36	31	Balance	345
		576			576
April 1	Balance	345			

In this case, the **debit** balance of **\$345** indicates that as at 31 March 2030 this account is a *current asset*: GST on purchases (\$576) is greater than the opening balance (\$130) plus GST on sales (\$101), so the business is *owed* **\$345** by the ATO.

GST Clearing would thus be reported in the Balance Sheet of Mack 'n' Roe Tennis Gear as at 31 March 2030 with its other current assets, such as Bank, Inventory and Accounts Receivable, as a present economic resource controlled by Mack 'n' Roe Tennis Gear that has the potential to produce economic benefits because it is expected to be converted to cash in the next 12 months (when it receives a GST refund from the ATO).

GST refund

Again, assuming 31 March 2030 is the end of its BAS period, during April 2030 Mack 'n' Roe Tennis Gear would receive **\$345** cash from the ATO as a refund because it has paid more GST than it has received. This cash receipt is known as a **GST refund**, which reduces the GST owed to the business by the ATO.

**Example
(continued)**

On 9 April 2030 Mack 'n' Roe Tennis Gear received a GST refund (EFT. Ref. 44128).

This GST refund would be recorded in the General Journal as shown in Figure 4.25.

Figure 4.25 General Journal: GST refund

General Journal			
Date	Details	Debit \$	Credit \$
April 9	Bank	345	
	GST Clearing		345
	Received GST refund from the ATO for balance owing as at 31 March 2030 (EFT Ref. 44128)		

The GST Clearing account of Mack 'n' Roe Tennis Gear would now appear as shown in Figure 4.26.

Figure 4.26 GST Clearing account: GST refund

GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
March 4	Bank	120	March 1	Balance	130
7	Bank	350	6	Bank	35
16	Bank	41	19	Bank	40
22	Bank	29	23	Bank	26
28	Bank	36	31	Balance	345
		576			576
April 1	Balance	345	April 9	Bank	345

As in the case with a GST settlement, a GST refund would be reported separately to other GST received as it is received *from the ATO to offset the GST asset from last period*.

GST cash flows

The payment of a GST settlement or receipt of a GST refund means that there are four potential cash flows related to GST:

- GST paid to suppliers for cash purchases and expenses
- GST received on cash sales
- GST settlement
- GST refund.



Review questions 4.8

- 1 Explain** the circumstances that would lead the GST Clearing account to have a credit balance.
- 2 Explain** how a credit balance in the GST Clearing account would be reported in the Balance Sheet.
- 3 Define** the term 'GST settlement'.
- 4 Show** the General Journal entries to record a GST settlement.
- 5 Explain** the circumstances that would lead the GST Clearing account to have a debit balance.
- 6 Explain** how a debit balance in the GST Clearing account would be reported in the Balance Sheet.
- 7 Define** the term 'GST refund'.
- 8 Show** the General Journal entries to record a GST refund.
- 9 Identify** the two transactions relating to GST that involve a cash inflow.
- 10 Identify** the two transactions relating to GST that involve a cash outflow.



Where have we been?

- Source documents provide both the evidence that a transaction has occurred and the details of the transaction itself.
- By ensuring that transactions are *Verifiable*, source documents ensure that data is supported by evidence and can be checked to ensure the reports provide a *Faithful representation* of what has occurred and are complete, free from material error and neutral (without bias).
- The Goods and Services Tax (GST) is a 10% tax levied by the federal government on most goods and services excluding fresh food.
- GST on sales is owed to the government, but GST on purchases reduces that liability.
- A source document must meet the requirements of a tax invoice in order to substantiate GST transactions.
- When cash is received, the source document will be a cash receipt of some form, such as a handwritten or electronic receipt, an EFT receipt, an ATM receipt, a credit card receipt or a Bank Statement. Cash sales must also be verified by a tax invoice.
- When cash is paid, the source document may be an EFT payment receipt, ATM receipt or Bank Statement. Cash payments involving GST must also be verified by a tax invoice.
- All GST transactions are summarised in the GST Clearing account, which can be a current asset or current liability.
- If GST on sales is greater than GST on purchases, the business will have a GST liability and will be required to make a GST settlement.
- If GST on purchases is greater than GST on sales, the business will have a GST asset and will be due a GST refund.
- As selling prices are generally higher than cost prices, most firms will end up with a GST liability.



Exercises

Please note: asterisks indicate that an answer for that question is available in the Selected Answers section at the end of this book.



Exercise 4.1 Calculating GST

Dodd's Nursery sells plants and has provided the following information relating to its sales for March 2030:

Date	Selling price (excluding GST)	GST (10%)	Total price (including GST)
March 1	\$400	\$40	
5		\$60	\$660
13	\$390		\$429
19	\$720		
23		\$120	
28			\$1 012



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Required

- Explain** the role of a tax invoice.
- State** three pieces of information that must be present on a source document if it is to be used as a tax invoice.
- Calculate** the missing figures to complete the table above.
- Calculate** the total GST received by Dodd's Nursery in March 2030.
- Explain** why small businesses that make sales involving the GST have a liability to the ATO.

During March 2030, Dodd's Nursery paid \$140 GST on its purchases.

- Explain** why Dodd's Nursery is allowed to deduct the GST on its purchases from the GST on its sales when calculating the GST that it owes to the ATO.
- Calculate** the total GST owed to the ATO by Dodd's Nursery as at 31 March 2030.



 Exercise 4.2
Cash receipt

On 1 May 2030, Lenny O’Connell opened Cal Q Later, a business selling calculators, cash registers and other business machinery, by making a deposit into the firm’s bank account, as shown on the document below:


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Bank of Casseo
Your money, our responsibility
Deposit record:
Cal Q Later (A/c: 322 001 545)

From	L. O’Connell
Bank name	Bank of Collingwood
Date of deposit	1 / 5 / 2030
Amount	\$30 000
Payee reference	001

Required

- a. Referring to the Qualitative characteristics, **explain** the role of source documents in the Accounting process.
- b. **Identify** the source document above.
- c. **Describe** the transaction verified by this document.
- d. **Record** this document in the General Journal of Cal Q Later.
- e. **Show** how this transaction would appear in the General Ledger of Cal Q Later.
- f. Referring to one Accounting assumption, **explain** why a small business should have a bank account separate from its owner.





Exercise 4.3

Cash sale

The following document was found in the office of Hats Off to Hats! The owner, Harry, applies 100% mark-up to all inventory, meaning the selling price is determined by adding 100% on top of the cost price.



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	Hats Off to Hats!		866 Mickleham Road Tullamarine VIC 3043 ABN: 45 983 453 101 TAX INVOICE
Date:	<i>2 November 2030</i>		
Receipt no:	<i>60</i>		
Received from:	<i>Cash sales</i>		
The sum of:	<i>Two hundred and twenty dollars</i>		
Being for:	<i>2 top hats @ \$100 each</i>		
Amount:	<u><i>\$ 200.00</i></u>		
Plus GST:	<u><i>\$ 20.00</i></u>		
Total:	<u><i>\$ 220.00</i></u>		
Signed.	<i>Paula Ekland</i>		

Required

- Identify** the source document above.
- Describe** the transaction verified by this document.
- Record** this document in the General Journal of Hats Off to Hats!
- Show** how this transaction would appear in the General Ledger of Hats Off to Hats!
- Explain** why this transaction creates a GST liability for Hats Off to Hats!
- Explain** the effect of this transaction on the Accounting equation of Hats Off to Hats!
- Referring to one Qualitative characteristic, **explain** the importance of recording transactions as they occur.





Exercise 4.4

Cash transactions

Leon's Bike Shop sells bikes and cycling gear and has provided the following information relating to its operations for December 2030:

Document A

 Leon's Bike Shop Lygon St, East Brunswick ABN: 66 320 157 880			
Sold to: Cash sales		Tax invoice (Rec. 43)	
		1 December 2030	
Items	Quantity	Unit Price	Total
Gargantuan Road Bike (GG1000)	2	2 400	4 800
GST (10%)			480
Payment made by EFT 3001 – thank you			5 280

Each bike had a cost price of \$1 800.

Document B

Leon's Bike Shop Lygon St, East Brunswick 2 December 2030 11.04am	
Account: 4xxx xxx xxx x546	CR
Cycling clothing	319.00
Price includes GST of \$29.00 Credit card ref. 021 003	

The cycling clothing had a cost price of \$200.

Additional information:

- Dec. 3 Received \$40 000 cash as a loan from TN Finance (EFT Ref. 165).
 4 \$20 interest was credited directly into the firm's bank account (Bank Statement).

Required

- Identify** two features of Document A that indicate that Leon's Bike Shop has received cash.
- Explain** why Document B would **not** be recognised as a tax invoice by the ATO.
- Calculate** the sales revenue earned from the transaction in Document B.
- Explain** how a narration supports the Qualitative characteristic of *Verifiability*.
- Record** these transactions in the General Journal of Leon's Bike Shop. (Narrations are **not** required.)
- Show** how the General Ledger of Leon's Bike Shop would appear after these transactions had been recorded.
- Calculate** the Gross Profit earned by Leon's Bike Shop for 1–4 December 2030.
- Referring to your answer to part **f**, **explain** how GST Clearing would be reported in the Balance Sheet of Leon's Bike Shop as at 4 December 2030.



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Exercise 4.5

Cash payment

The following source document was discovered by the manager of Sally's Shoe Shop:



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Bentleigh Bank	
A/c: 427 988 511	
Electronic Funds Transfer	
Date	2 May 2030
Amount	\$1 045
To	Bay Gazette A/c: 608 530 114
Notes	Advertising (including GST)
Reference	12663

Required

- State** whether source documents take place at the input, processing or output stage of the Accounting process.
- Identify** the source document above, and then **describe** the transaction it verifies.
- Record** this transaction in the General Journal of Sally's Shoe Shop.
- Explain** the effect of this transaction on the Accounting equation of Sally's Shoe Shop.
- Referring to the document above, **explain** why Sally's Shoe Shop would need additional documentation to ensure its information was *Verifiable*.



Exercise 4.6

Cash payments

Stipe, Buck and Mills sells furniture and has provided the following source documents for January 2030:



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Document A

Cuyahoga Furnishings			Rec. 9808
Voice of the Bay			
ABN: 25 662 987 643			
Customer: Stipe, Buck and Mills ABN: 63 200 451 478		Tax invoice 4/1/2030	
For	Qty	Unit cost	Total
#200 101 – Pine bookcase	4	350.00	1 400.00
GST on sale			140.00
Amount paid – Thank you			\$1 540.00

Document B

Bank of Georgia		
REMEMBER LIFE!		
DATE	TIME	ATM ID
10/01/2030	6.02pm	662001
CARD:	***** 264	
REF. NO.:	819	
WITHDRAW FROM:	SAVINGS	
AMOUNT:	\$400.00	
BALANCE	*****	
PLEASE RETAIN OR DISPOSE OF THOUGHTFULLY		

Document C

 Fables Energy Electricity and Service Collins St., Melbourne 3000 ABN: 54 218 975 220		Rec. 32014
Service address:	Stipe, Buck and Mills 14 Reconstruction Rd, East Malvern, 3145 ABN: 32 001 546 887	Tax invoice 15 January 2030
Service period:	1 January – 15 January 2030	
Service charge (monthly)		\$ 95
Usage (620 kWh @ 25c per kWh)		155
Total (includes GST of \$25)		275
Amount paid (EFT – 564 009)		275
Balance owing		nil

Additional information:

Jan.	20	Paid \$600 wages to B. Berry
	26	Paid BGO Insurance \$352 including GST
	31	Bank fees of \$10 were paid directly from the business bank account

Required

- Calculate** the GST paid on the transaction in Document A.
- Document B relates to cash withdrawn by the owner. **Explain** why there is no GST to account for on this transaction.
- Explain** how the transaction in Document C would affect the GST liability of Stipe, Buck and Mills.
- Explain** the role of the General Journal in an Accounting system. **Identify** at least one Qualitative characteristic that supports your answer.

- e. **Record** these transactions in the General Journal of Stipe, Buck and Mills. (Narrations are **not** required.)
- f. **Show** how the General Ledger of Stipe, Buck and Mills would appear after these transactions had been recorded.



Exercise 4.7

GST Clearing account

E&I Pianos has provided its GST Clearing account showing its transactions for August 2030

GST Clearing					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 2	Bank	35	Aug. 1	Balance	160
8	Bank	12	5	Bank	240
16	Bank	500	11	Bank	320
27	Bank	40	23	Bank	250



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Required

- a. **State** what type of transaction caused the three credit entries in the GST Clearing account of E&I Pianos.
- b. **Balance** the GST Clearing account as at 31 August 2030.
- c. Referring to your answer to part b, **explain** how the GST Clearing account would be reported in the Balance Sheet of E&I Pianos as at 31 August 2030.

On 4 September 2030, E&I Pianos made a payment to the ATO for the balance owing as at 31 August 2030 (EFT 658).

- d. **Record** EFT payment 658 in the General Journal of E&I Pianos.



Exercise 4.8

GST Clearing account

Mind Games has provided its GST Clearing account showing its transactions for March 2030:

GST Clearing					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
March 1	Balance	240	March 5	Bank	63
6	Bank	35	27	Bank	85
14	Bank	12			
22	Bank	21			
28	Bank	19			



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Required

- a. **Explain** what circumstances may have caused the GST Clearing account of Mind Games to have a debit balance as at 1 March 2030.
- b. **Calculate** the sales revenue of Mind Games for March 2030.
- c. **Balance** the GST Clearing account of Mind Games as at 31 March 2030.
- d. Referring to your answer to part c, **explain** how the GST Clearing account would be reported in the Balance Sheet of Mind Games as at 31 March 2030.

On 6 April 2030, Mind Games received a GST refund from the ATO (EFT Ref. 22101).

- e. **Record** EFT Ref. 22101 in the General Journal of Mind Games.



Exercise 4.9

Cash transactions

Peta Anthony sells uniforms to other businesses. As at 1 February 2030, it had a bank overdraft of \$1 900, inventory on hand worth \$23 000 and a GST liability to the ATO of \$520.

The firm's transactions for February 2030 were:

Feb. 2	Borrowed \$15 000 from QPR Bank, which will be used to purchase new shop fittings.
5	Paid \$3 500 (plus GST) for new shop fittings.
9	Paid \$420 wages.
12	Cash purchase of inventory for \$800 (plus \$80 GST).
15	Sold inventory for \$2 300 (plus \$230 GST). The clothing had a cost price of \$1 150.
17	Peta withdrew \$300 for her own purposes.
21	Paid rent for the month of \$902 (including GST).
26	Purchased inventory for \$792 (including GST).
28	Clothing that had been purchased in January 2030 for \$1 000 (plus GST) was sold for \$2 200 (including GST).

Additional information:

- The Loan – QPR Bank will be repaid in monthly instalments of \$500.
- Peta only buys inventory from suppliers who comply with the industry Code of Conduct for employee conditions. She is aware of other suppliers who do not comply and charge less for their inventory, but she is concerned that purchasing from them would not be good for her business.

Required

- Calculate** the owner's capital as at 1 February 2030.
- Record** the transactions for February 2030 in the General Journal of Peta Anthony. (Narrations are **not** required.)
- Show** how the General Ledger of Peta Anthony would appear after all transactions for February 2030 had been recorded.
- *d. Prepare** a Trial Balance for Peta Anthony as at 28 February 2030.
- *e. Prepare** an Income Statement for Peta Anthony for February 2030.
- f. Discuss** whether Peta's decision regarding the suppliers and the industry Code of Conduct is good for her business.
- *g. Prepare** a Balance Sheet for Peta Anthony as at 28 February 2030.
- h. Explain** how Peta Anthony can ensure that its Balance Sheet provides a *Faithful representation* of the value of its non-current assets.

Ethical considerations



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Exercise 4.10

Cash transactions

Parkerman Suppliers sells all types of business stationery. The firm's transactions for July 2030 were:

July	3	Owner withdrew \$500 cash.
	7	GST settlement of \$1 700 paid to ATO for balance owing as at 30 June 2030 (EFT Rec. 9001).
	12	Cash sale \$1 600 (plus GST) (Rec. 320). The inventory had a cost price of \$800.
	14	Paid \$650 for inventory (plus \$65 GST).
	19	Paid electricity bill of \$693 (including GST) (Inv. 9002).
	21	Sale of inventory for \$1 650 (including GST). The mark-up on this inventory was 50%.
	27	Owner withdrew \$300 for her own purposes.
	30	Paid \$572 (including GST) for inventory.

Additional information:

The owner has argued that because GST applies to all cash sales and purchases of inventory, the GST balance will simply be 10% of the Bank balance so it is unnecessary to report GST Clearing in the Balance Sheet.

Required

- Explain** why the transaction on 3 July 2030 must be recorded as Drawings. **Identify** one Accounting assumption that supports your answer.
- Record** the transactions on 7 July 2030, 12 July 2030 and 19 July 2030 in the General Journal of Parkerman Suppliers.
- Explain** the effect of the transaction on 21 July 2030 on the Accounting equation of Parkerman Suppliers.
- Show** how the Bank, Inventory and GST Clearing accounts would appear in the General Ledger of Parkerman Suppliers as at 31 July 2030 after accounts have been balanced.
- Explain** how the Inventory account will be reported in the Balance Sheet of Parkerman Suppliers as at 31 July 2030.
- Discuss** the accuracy of the owner's statement. In your answer refer to at least two Qualitative characteristics.

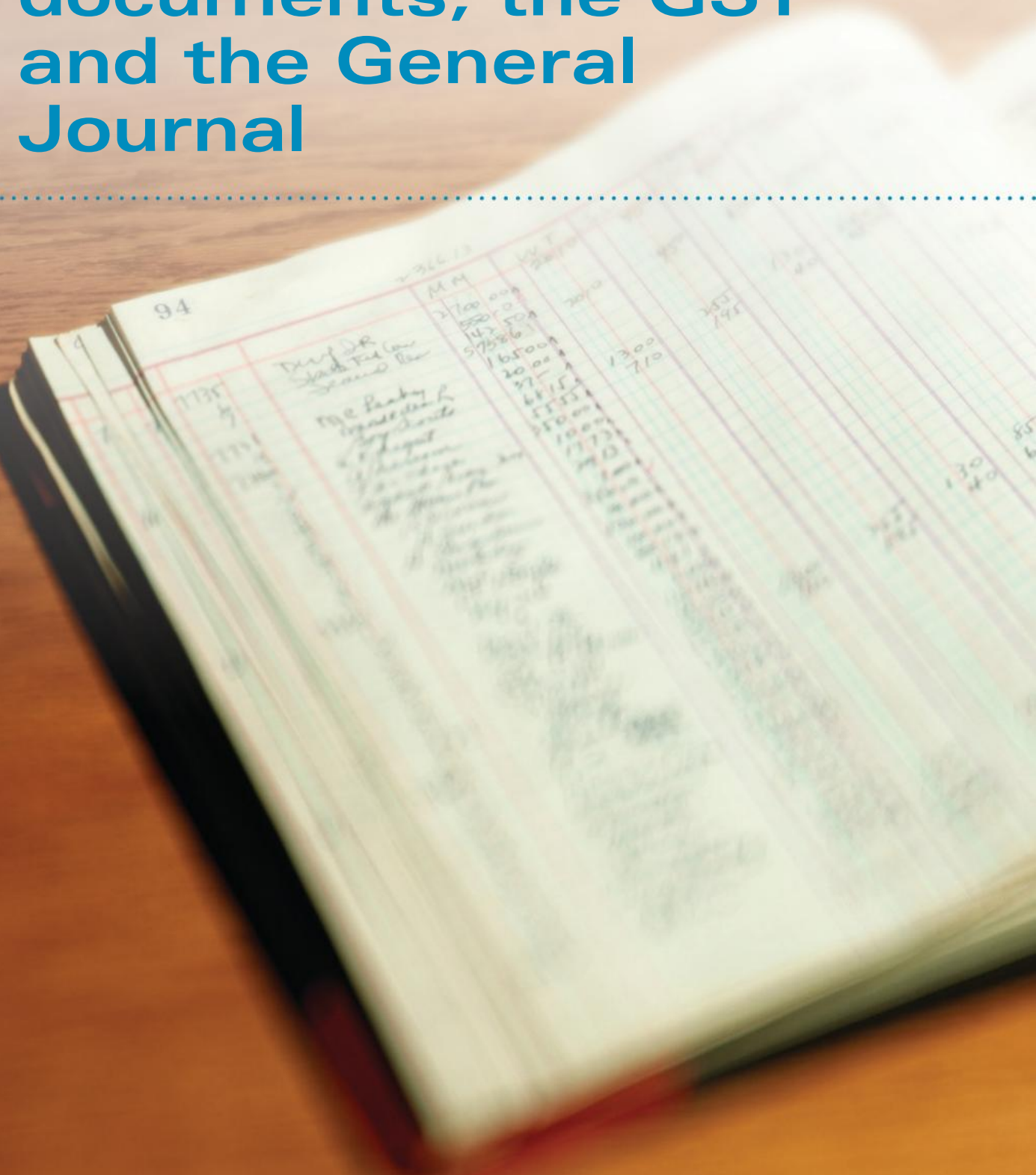


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Chapter 5

Accounts Payable: documents, the GST and the General Journal



Learning intentions

After completing this chapter, you should be able to:

- **explain** the features of a credit transaction
- **apply** Accounting assumptions and Qualitative characteristics
- **identify** transactions with Accounts Payable from source documents
- **record** transactions with Accounts Payable in the General Journal and General Ledger
- **explain** the effect on the Accounting equation of transactions with Accounts Payable
- **explain** how transactions with Accounts Payable affect the financial reports
- **apply** Accounting skills to transactions with Accounts Payable including:
 - credit purchases of inventory (including GST)
 - payments to Accounts Payable, including discounts
 - purchase returns to Accounts Payable
- **apply** credit terms and **calculate** settlement discounts
- **discuss** ethical considerations in business decision-making
- **identify** the effect of GST on transactions with Accounts Payable
- **interpret** and **explain** the role of a Statement of Account
- **calculate** and **analyse** Accounts Payable Turnover
- **discuss** strategies to manage Accounts Payable.

Key terms

After completing this chapter, you should be familiar with the following terms:

- credit transaction
- credit purchase
- Account Payable
- purchase invoice
- credit terms
- purchase return
- credit note
- settlement discount
- discount revenue
- Statement of Account
- Accounts Payable Turnover (APTO)
- liquidity.

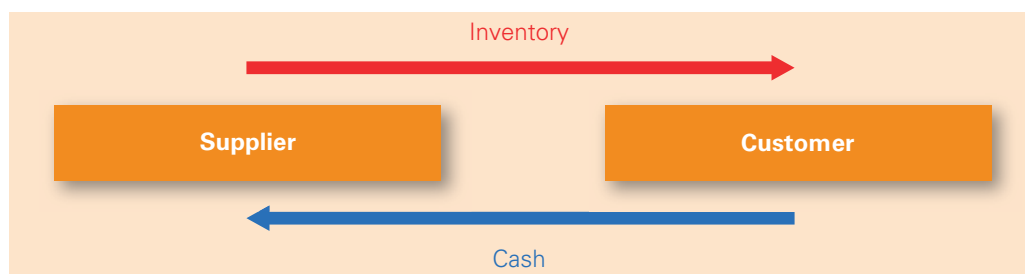


5.1 Credit purchases and the GST

Chapter 4 considered how to identify and record cash transactions, including those that involved the GST. Each transaction involved some type of exchange, but because they were all cash transactions, the cash and the goods were both exchanged *on the same day*.

This chapter considers **credit transactions**, specifically those relating to the purchase of inventory, where the **cash** and the **inventory** are still exchanged, but *on different days*.

Figure 5.1 Credit transaction



A **credit purchase** means that the business buys and obtains the **inventory** on the day of the purchase, but the **cash** is not paid to the supplier until a later date. The supplier from whom the inventory is obtained, and to whom the **cash** is still owed, is called an **Account Payable**.

This means that for every credit purchase two different transactions will occur, possibly with many days between them, which are:

- the **credit purchase of the inventory**
- the **payment to the Account Payable**.

Qualitative characteristics and Accounting assumptions

Recognising credit purchases is only possible because of the application of two Accounting assumptions: the Going concern assumption and the Accrual basis assumption.

Applying the Going concern assumption allows the business to record a credit purchase, and the amount that still needs to be paid, because it assumes that the life of the business is continuous. As the business will continue to operate into the future, it will still be operating when the payment to the Account Payable is due to be made.

This works in combination with the Accrual basis assumption, which states that the Elements of the reports are recognised when they satisfy the definitions and recognition criteria, regardless of whether cash has been exchanged or not. In the case of a credit purchase, these Elements of the reports are:

- inventory that can be sold, which meets the definition of an asset – a present economic resource controlled by the entity as a result of a past event
- an amount that is owed to the Account Payable, which meets the definition of a liability – a present obligation to transfer a economic resource as a result of a past event.

Applying both the Going concern and Accrual basis assumptions to record a credit purchase also ensures *Relevance* in the reports, because all information capable of

credit transaction

a transaction that involves an exchange of goods or services on one date, followed by the exchange of cash at a later date

credit purchase

a transaction that involves buying inventory on credit, with the exchange of the inventory on one date, followed by the exchange of cash at a later date

Account Payable

a supplier from whom goods (usually inventory) or services have been purchased on credit, and the amount is still owing for those purchases (also called a 'creditor')

making a difference to decision-making (specifically, the amount of inventory on hand and the amount owed to the Account Payable) is included in the financial statements.

On 6 August 2030, Hardware Plus purchased inventory from Marcon Tools for \$2 250 plus \$225 GST (Inv. A16).

Example

When a business makes a credit purchase of inventory, it must be able to identify the value of the inventory it has purchased *plus* the GST on the purchase, as both amounts will be owed to the Account Payable. This information can be found on the **purchase invoice** issued by the supplier / Account Payable, which may appear as shown in Figure 5.2.

purchase invoice

a source document used to verify a credit purchase of inventory or other items

Figure 5.2 Purchase invoice



Marcon Tools
 ABN 98 756 458 751
 33 Gaffney St
 Coburg VIC 3058

6 August 2030
 TAX INVOICE
 Inv A16
 Terms: 5/7, n/60

Charge to: Hardware Plus
 Johnson St, Collingwood VIC 3066
 ABN: 44 110 787 854

Qty	Item	Unit price \$	Total cost \$
10	AED electric drill (AED 400)	180.00	1 800.00
5	Ryboshi Socket Set (RSS1)	90.00	450.00
	GST (10%)		225.00
	Total		2475.00
	Amount paid		Nil
	Balance owing		2475.00



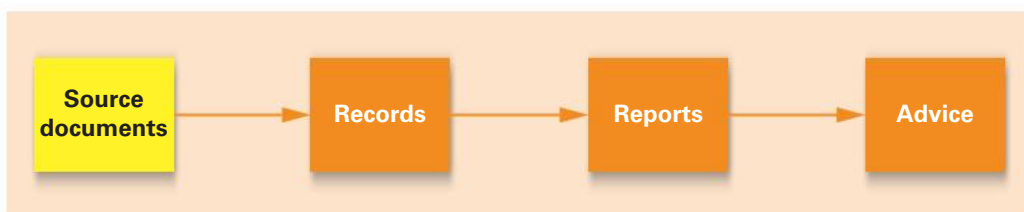
Video 5.1

Recording a credit purchase (of inventory) in the General Journal

Study tip

Because purchase invoices are issued by the supplier, who will have other customers, invoice numbers on purchase invoices will not run in sequence.

Source document



Given that all documents that are used to substantiate GST are called 'tax invoices', and these exact words must actually appear on the document, how can a purchase invoice be distinguished from any other GST document?

First, we must look for the name of the business at the top of the document, and then consider the name of the business for whom we are Accounting. Like all source documents, the name of the seller appears at the top, so the name of the business making the credit purchase appears lower down as the business that is 'Charged to'. In this example, Marcon Tools appears at the top as the seller, meaning the purchase has been made by Hardware Plus. If we are Accounting for Hardware Plus, this document represents a purchase.

Study tip

In the accounts of *Hardware Plus*, this transaction is a credit purchase, but in the accounts of *Marcon Tools* this document would be identified as a sales invoice and recorded as a credit sale.

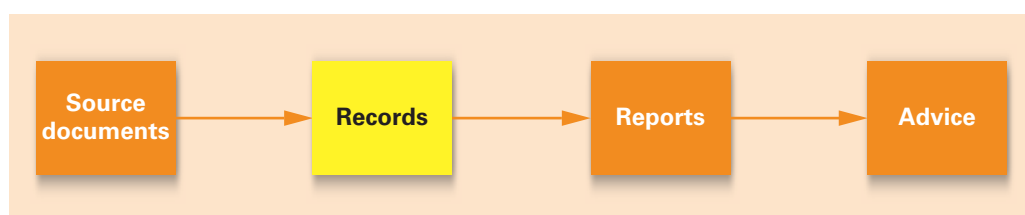
credit terms

information that details how many days a business has to pay for a credit transaction, and any applicable settlement discount

Second, a purchase invoice will indicate in some way that payment has not yet been made. In this example, the **Amount paid** is **nil**. This on its own may indicate a credit purchase, but this document also identifies a **Balance owing** of **\$2 475** (the same amount as the **Total**) to the supplier (the Account Payable – Marcon Tools).

Third, a purchase invoice will probably note some type of **credit terms** to indicate how long the customer has to pay, and if a settlement discount applies, the terms of that discount. In Figure 5.2, the terms of the sale (**5/7, n/60**) indicate that Hardware Plus has **60 days** to settle the **Net amount** of the debt by making a payment to Marcon Tools, but if payment is made within **7 days**, a **5% discount** will be applied to the total amount owing. (Discounts are explained in detail in Section 5.4 later in this chapter.)

Recording: General Journal



As a result of this credit purchase, Hardware Plus must **debit** its **Inventory** account **\$2 250** to recognise the increase in this asset.

In addition, the supplier is obliged to charge GST, calculated as 10% of the price of the inventory. This GST will eventually be forwarded to the ATO by Marcon Tools, so Hardware Plus can **debit** its **GST Clearing** account **\$225** to recognise this as a reduction in its GST liability.

Taken together, and in light of the transaction being on credit (no cash has been paid), Hardware Plus will owe its supplier (Marcon Tools) **\$2 250** for the inventory it has purchased, plus **\$225** for the GST on that purchase, which will require a **credit** of **\$2 475** to the current liability **Account Payable – Marcon Tools**. This amount owed represents a present obligation (to Marcon Tools) to transfer an economic resource (by paying cash or, indeed, returning the inventory) as a result of a past event, with this obligation expected to be settled within the next 12 months.

This would be recorded in the General Journal as shown in Figure 5.3:

Figure 5.3 General Journal: credit purchase with GST

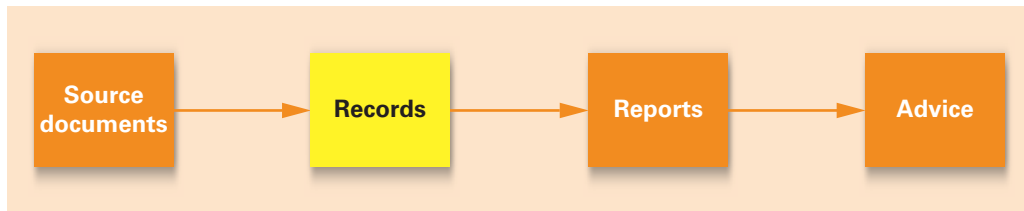
General Journal			
Date	Details	Debit \$	Credit \$
Aug. 6	Inventory	2 250	
	GST Clearing	225	
	Account Payable – Marcon Tools		2 475
	Credit purchase of 10 AED 400 drills and 5 Ryboshi		
	socket sets from Marcon Tools (Inv. A16)		

A credit purchase thus results in two debits and one credit, but together they balance, keeping the Accounting equation and Balance Sheet also in balance. As always, the narration includes the source document (Inv. A16) to support *Verifiability* and thus *Faithful representation*.

Note that although the GST increases the amount owed to the Account Payable, it does not affect the valuation of inventory as it does not affect the value of the economic

resource represented by that inventory. Any economic benefit from the inventory is realised when the inventory is sold, whereas any GST benefit (in the form of a reduction in the GST liability) is realised when the GST settlement or refund occurs.

Recording: General Ledger



After posting the General Journal, the General Ledger would appear as shown in Figure 5.4.

Figure 5.4 General Ledger: credit purchase with GST

General Ledger Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 1	Balance	45 000			
6	Account Payable – Marcon Tools	2 250			

GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
6	Account Payable – Marcon Tools	225	Aug. 1	Balance	3 000

Account Payable – Marcon Tools (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Aug. 6	Inventory / GST Clearing	2 475

The **\$2 475** credited to the Account Payable includes **\$2 250** worth of inventory plus **\$225** GST, so both **Inventory** and **GST Clearing** are noted in the cross-reference in the Account Payable account, but the cross-reference in the Inventory and GST Clearing accounts is simply Account Payable. Debiting the GST Clearing account reduces the liability to the ATO (in this case, by **\$225**, or from \$3 000 to \$2 775).

Study tip

Although invoices would be issued for credit purchases of many items – inventory and other assets – this course only covers credit purchases of inventory.

Effect on the Accounting equation

A credit purchase of inventory will thus have the following effect on the Accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Increase (Inventory)	2 250
Liabilities	Increase (Increase Account Payable \$2 475 ; decrease GST Clearing \$225)	2 250
Owner's equity	No effect	

Note that there is no revenue earned or expense incurred from a credit purchase, so there is no effect on profit.

Ethical considerations

Ethical considerations

When purchasing inventory, a business needs to strike a balance between price (low) and quality (high). Purchasing inventory at low prices will mean an ability to sell at a lower price, achieving higher sales volume and/or a better mark-up, but if this comes at the expense of quality, it could mean customers are dissatisfied and return items or, worse still, shop elsewhere.

Further, businesses have an ethical and often legal obligation to provide goods that are safe (within legal, industry and consumer standards) and, to varying degrees, 'socially responsible'. Increasingly, this need for ethical purchasing relates not only to the final product, but also to how those products are produced.

Ethical purchasing is not easily defined, and even subject to rapid change, but a business that does not factor ethical considerations into its decision-making is likely to encounter difficulties. Businesses that source inventory from suppliers who exploit their employees or cause damage to the environment must consider that this may have negative consequences for their operations, as consumers are unwilling to purchase items produced in these ways. Business owners also need to act within their *own* ethical parameters lest they be conflicted about purchasing (and selling) items that may damage the society and environment in which they and others live.

This does not mean businesses cannot sell cheap products – low prices are a key business strategy – but it does mean businesses must be honest and ethical and provide products that do what they purport to do, meet their intended purpose and comply with legislative and other standards. Indeed, there may be a market advantage in purchasing items from socially and environmentally responsible suppliers, with consumers more willing to purchase these items (and sometimes at a higher price) and from businesses that are regarded as being honest, ethical and socially and environmentally responsible.



Review questions 5.1

1 **Define** the following terms:

- credit transaction
- credit purchase
- Account Payable.

2 **Explain** how the Accounting assumptions support the recognition of Accounts Payable.

3 **Explain** how the recording of credit purchases ensures *Relevance* in the Balance Sheet.

4 **Identify** the source document used to verify a credit purchase.

5 **Explain** how the source document used to verify a credit purchase can be distinguished from other tax invoices.

6 **Show** the General Journal entries to record a credit purchase.

7 **Explain** why an Account Payable is reported as a liability.

8 **Explain** how GST on a credit purchase will affect:

- the value of the inventory purchased
- GST owed to the ATO.

9 **State** the effect of a credit purchase on the Accounting equation.

10 **Explain** how a credit purchase is reported in the Income Statement.

11 **Explain** how ethical purchasing decisions can improve business performance.



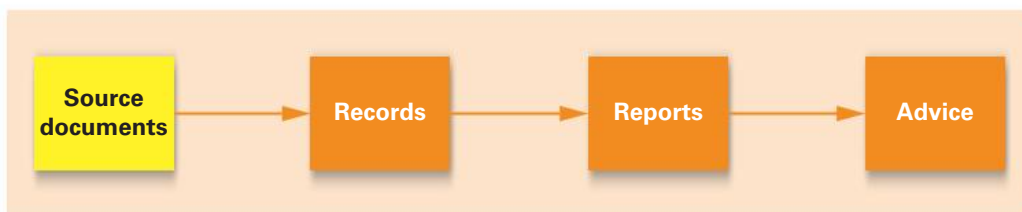
5.2 Payments to Accounts Payable

Having purchased inventory on credit, the business will at some point in the future have to make a payment to 'settle' the amount owing to the Account Payable.

On 15 August 2030, Hardware Plus paid \$1 500 of the amount owing to Marcon Tools (EFT 10253).

Example

Source document



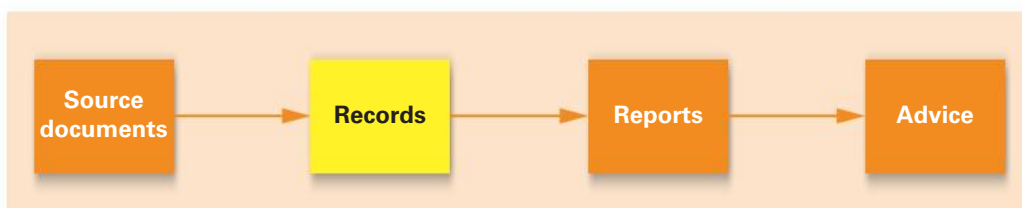
A payment to an Account Payable is made using EFT transfer. The EFT payment receipt would be shown as per Figure 5.5:

Figure 5.5 EFT payment receipt: payment to Account Payable

FinCo Bank Hardware Plus (A/c: 265 908 731) EFT payment	
Date	15/8/2030
To	Marcon Tools A/c: 345 611 800
Notes	Payment to Account Payable
Amount	\$1 500
Reference	10253

There is no GST to account for when a payment is made to an Account Payable as it was already recognised at the time the credit purchase was recorded (in this case, on 6 August 2030).

Recording: General Journal



As a cash transaction, a payment to an Account Payable reduces the **Bank**, so this account is **credited**. At the same time, the amount owing to the **Account Payable** also reduces, so this liability account is **debited**. Figure 5.6 shows how this would be recorded in the General Journal:

Figure 5.6 General Journal: cash payment to Account Payable

General Journal			
Date	Details	Debit \$	Credit \$
Aug. 15	Account Payable – Marcon Tools	1 500	
	Bank		1 500
	Cash payment to Account Payable – Marcon Tools		
	(EFT 10253)		

Recording: General Ledger

After posting the General Journal, the General Ledger would appear as shown in Figure 5.7:

Figure 5.7 General Ledger: cash payment to Account Payable

General Ledger					
Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 1	Balance	20 000	Aug. 15	Account Payable – Marcon Tools	1 500

Account Payable – Marcon Tools (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 15	Bank	1 500	Aug. 6	Inventory / GST Clearing	2 475

In this example, the entire amount owed to Marcon Tools (\$2 475) has not been paid, so \$975 is still owing and would be reported as a current liability in the Balance Sheet of Hardware Plus.

Effect on the Accounting equation

A payment to settle an Account Payable will thus have the following effect on the Accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Bank)	1 500
Liabilities	Decrease (Account Payable – Marcon Tools)	1 500
Owner’s equity	No effect	



Review questions 5.2



- 1 **Identify** the source documents that might be used to verify a payment to an Account Payable.
- 2 **Explain** why there is no GST to account for when a payment is made to an Account Payable.
- 3 **Show** the General Journal entries to record a payment to an Account Payable.
- 4 **State** the effect of a payment to an Account Payable on the Accounting equation.
- 5 **Explain** how a payment to an Account Payable is reported in the Income Statement.



5.3 Purchase returns

The main objective of a trading firm is to earn a profit by purchasing inventory then reselling it at a higher price. However, given the sheer number of transactions a trading firm will have with its suppliers, it is only logical to expect that not every item of inventory purchased will prove to be suitable. This means that in the normal course of business operations, the business can expect to make a certain number of **purchase returns** where it returns inventory to its suppliers (Accounts Payable).

purchase return

the return to a supplier (Account Payable) of inventory bought on credit

Study tip

Although returns may be made for cash, this course concentrates only on purchase returns to suppliers (Accounts Payable) of inventory bought on credit.

Reasons for returns of inventory

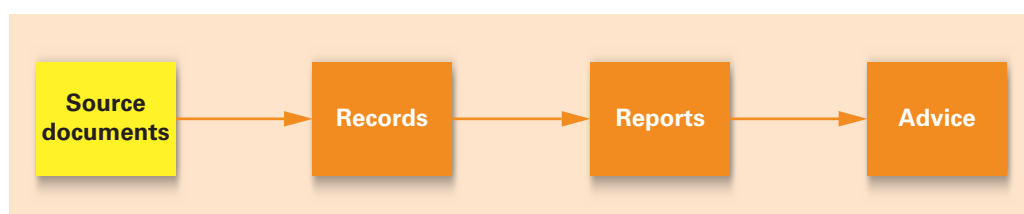
There are probably as many reasons for returning inventory as there are for purchasing it, but some of the more common reasons are because:

- the inventory is faulty or damaged
- the inventory is the wrong size/colour/shape/model
- too many items of inventory were purchased
- the business has simply changed its mind about what inventory it intends to sell.

On 28 August 2030, Hardware Plus returned 2 AED electric drills to Marcon Tools because they were faulty (Cr. Note 85).

Example

Source document



As with all transactions, the process of recording and reporting a purchase return must begin with a source document. Information that cannot be *Verified* by a source document will undermine the ability of the reports to provide a *Faithful representation* of the firm's financial position and performance.

credit note

a source document that verifies the return of inventory

**Video 5.2**

Recording a purchase return in the General Journal

Study tip

A credit note is not 'store cash', but rather evidence that the balance owed has been reduced as a result of a return.

As this course deals only with purchase returns to a supplier (Account Payable) of inventory previously purchased on credit, the only document to provide the evidence of a purchase return will be a **credit note**, such as the one shown in Figure 5.8:

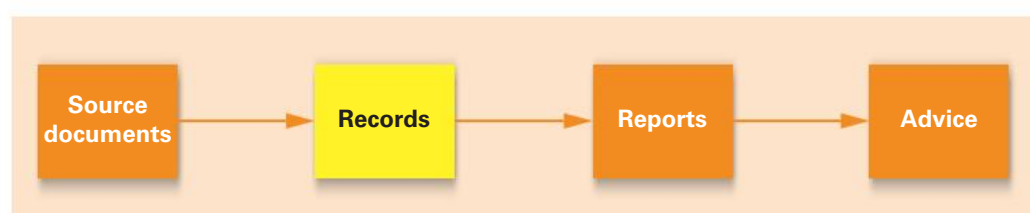
Figure 5.8 Credit note: purchase return

 Marcon Tools ABN 98 756 458 751 33 Gaffney St Coburg VIC 3058		28 August 2030 TAX INVOICE Credit Note 85	
Returned by: Hardware Plus Johnson St, Collingwood VIC 3066 ABN: 44 110 787 854			
Qty	Item	Unit price \$	Total cost \$
2	AED electric drill (AED 400)	180.00	360.00
	GST (10%)		36.00
Total			396.00
Reason		Faulty goods	

Every credit note must identify the name of the business or person returning the inventory, the type and quantity of inventory returned, and the reason for the return. However, closer inspection is required to determine if the document verifies a purchase return or in fact a sales return. (Sales returns will be covered in Chapter 6.)

Just like an invoice, a credit note is always prepared by the seller or business who originally supplied the inventory and is now accepting it back as a return, with the name of the business returning the inventory appearing in the middle. In this case, the items have been 'Returned by' Hardware Plus, so it is a purchase return in the accounts of Hardware Plus.

Recording: General Journal



A purchase return occurs when a business returns inventory to a supplier (Account Payable) for inventory previously purchased on credit, so in terms of debit and credits it is the exact reverse of a credit purchase.

Returning the inventory to the supplier reduces the amount that is owed to that supplier, so this is recorded as a **debit** to **Account Payable – Marcon Tools**. However, the original amount owing to the Account Payable consisted of two amounts: the cost price of the inventory (\$360) plus the GST on that purchase (\$36), so returning the inventory decreases the Account Payable by the sum of these two figures (\$396).

Second, because the inventory level decreases, the **Inventory** decreases via a **credit** to this account, but this is only for the value of the inventory returned (\$360), with the

remaining \$36 recorded as a separate credit to GST Clearing, increasing the liability to the ATO (or possibly reducing the asset). That is, whereas GST on the credit purchase reduced the GST liability – because the supplier will forward the GST to the ATO – this entry is ‘reinstating’ that GST liability because it will no longer be paid to the supplier.

This would be recorded in the General Journal as shown in Figure 5.9:

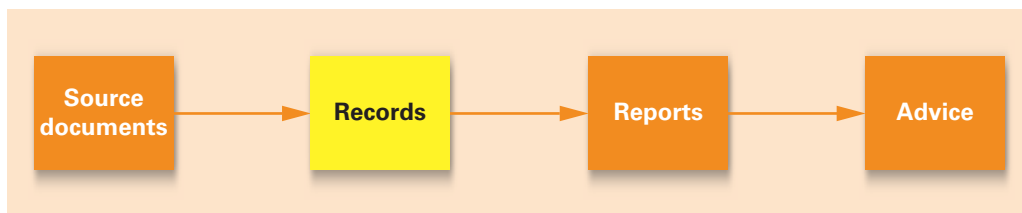
Figure 5.9 General Journal: purchase return

General Journal			
Date	Details	Debit \$	Credit \$
Aug. 28	Account Payable – Marcon Tools	396	
	Inventory		360
	GST Clearing		36
	Purchase return to Marcon Tools of 2 AED electric drills – faulty (Cr. Note 85)		

In the case of a return, the narration must identify not only the source document (Cr. note 85) but also the type and quantity of inventory being returned and the reason for the return.

Recording: General Ledger

.....



After posting the General Journal, the General Ledger would appear as shown in Figure 5.10:

Figure 5.10 General Ledger: purchase return

General Ledger Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 1	Balance	45 000	Aug. 28	Account Payable – Marcon Tools	360
6	Account Payable – Marcon Tools	2 250			

GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
6	Account Payable – Marcon Tools	225	Aug. 1	Balance	3 000
			28	Account Payable – Marcon Tools	36

Account Payable – Marcon Tools (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 15	Bank	1 500	Aug. 6	Inventory / GST Clearing	2 475
28	Inventory / GST Clearing	396			

The two cross-references in the Account Payable account reflect the fact that the \$396 decrease is a result of no longer owing Marcon Tools for the inventory (\$360) nor for the GST on that inventory (\$36).

Each account also has identical cross-references on the debit and credit sides (but with differing amounts), reflecting the fact that a credit purchase and a purchase return are exactly the opposite in terms of General Journal and General Ledger entries.

Effect on the Accounting Equation

Because a purchase return is the opposite of a credit purchase, its effect on the Accounting Equation is also the opposite. Whereas a credit purchase will increase Inventory and Accounts Payable and decrease the GST liability, a purchase return has the following effect on the Accounting Equation:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (<i>Inventory</i>)	360
Liabilities	Decrease (Decrease Account Payable \$396 ; increase <i>GST Clearing \$36</i>)	360
Owner's equity	No effect	

If the GST Clearing account has a debit balance, and is therefore an asset, then a purchase return will decrease that asset. This will change the overall effect on the Accounting Equation: asset and liabilities will still decrease, but by the total on the credit note, including the GST.

Because a purchase return does not affect any revenue or expense items, and does not involve a cash flow, it will not be reported in either the Cash Flow Statement or the Income Statement. In fact, it will not be reported anywhere. A purchase return will change the balances of Inventory, Accounts Payable and GST Clearing in the Balance Sheet but will not be reported as a separate item.

Ethical considerations

The question of whether to return inventory is sometimes easy to answer, with businesses well within their rights to return items that are damaged or faulty or not what was ordered.

However, there may be occasions when this question is harder to answer, such as when it is not clear whether the damage occurred before or after the inventory was delivered. Returning inventory that was delivered in good condition, and damaged only after it was received, may reduce losses in the short term but over time could jeopardise relationships with suppliers. The same applies to returns where the business simply changes its mind, as suppliers are not obliged to accept returns in these cases.

Ethical considerations



Review questions 5.3

- 1 Define** the term 'purchase return'.
- 2 State** four reasons why inventory may be returned to a supplier.
- 3 Identify** the source document used to verify a purchase return.
- 4 List** five pieces of data that must be noted on the source document used to verify a purchase return.
- 5 Show** the General Journal entries to record a purchase return.
- 6 State** one reason why the term 'purchase return' is not used as a cross-reference in the Accounts Payable account.
- 7 Explain** the effect of a purchase return on the GST liability to the ATO.
- 8 State** the effect of a purchase return on the Accounting equation.



5.4 Discount revenue

For a business that *sells* on credit terms, the issue of how to make sure customers pay either early or on time can be a vexed question. One of the more common options is to offer a **settlement discount**, which rewards customers who pay early by reducing the amount that they are required to pay.

For a business that *purchases* on credit, the discount is offered *by the supplier*, reducing the amount paid (to the Account Payable) in return for that payment being made early. The discount itself is the amount that will *not* have to be paid but will still be deducted from the amount owing to the Account Payable, and it is known as **discount revenue** as it decreases liabilities (Accounts Payable) and increases owner's equity (without requiring a decrease in Bank or any other asset).

settlement discount

a reduction in the amount paid by a credit customer in return for early repayment

discount revenue

a revenue in the form of a decrease in liabilities (Accounts Payable) and an increase in owner's equity, earned when Accounts Payable are paid early and a settlement discount is given by the supplier

Linen and McCartney purchases sheets, towels and other manchester on credit from CC Cotton under terms of 5/7, n/30.

During March 2030, the following transactions occurred:

March 3 Purchased inventory on credit from CC Cotton for \$1 400 (plus GST) (Inv. 43)

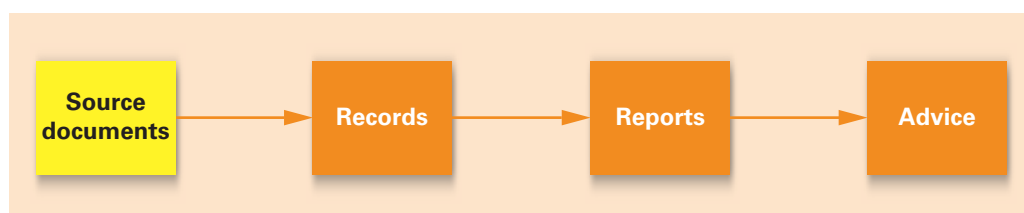
8 Paid CC Cotton *in full settlement of account* (EFT 4002)

Example

Study tip

A settlement discount is given for early repayment: it is **not** the same as negotiating a lower price at the time of sale.

Source document



The source document for a payment to an Account Payable will be the same with or without a discount, and it will most likely be an EFT payment receipt. In this example, the payment notes that it is *in full settlement of account*, confirming both that it is a payment to an Account Payable and that it will reduce to zero the balance owed to that supplier.

However, to determine whether a discount applies, and if so the amount of the discount, it is necessary to check the purchase invoice, the terms noted on that invoice and the date of both the purchase and the payment.

Calculating the discount

As noted earlier, the terms of a settlement discount must be stated on the invoice. The discount rate and the number of days allowed to pay will vary between firms, depending on how quickly they need their cash and the relationships they develop with their customers, but the format for expressing the credit terms is generally fairly consistent.

In this example, Linen and McCartney has 30 days to pay the **net amount** (balance owing) on the invoice, but because the payment is made on 8 March 2030 – within the **seven-day** discount period from the purchase date of 3 March 2030 – it is entitled to a **discount of 5%**.

Study tip

In credit terms, the second and fourth numbers refer to the number of days.

The discount revenue earned on 8 March 2030 would be calculated as shown in Figure 5.11:

Study tip

GST can be adjusted so that businesses do not have to absorb the GST they do not collect, but this is beyond the scope of this course.

Figure 5.11 Calculation: discount revenue

Discount revenue

=

Discount rate × Amount owing

=

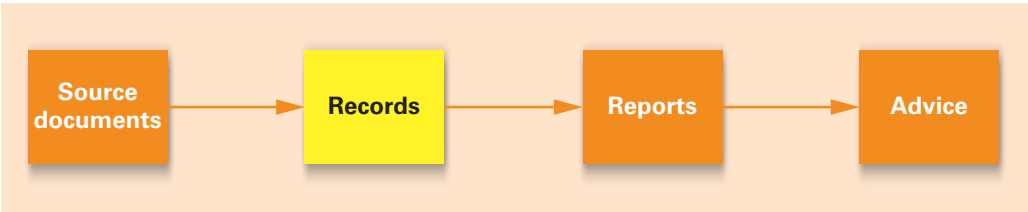
5% × \$1 540

=

\$77

By paying early, Linen and McCartney earns a discount of 5% on the full balance of \$1 540 (including the GST) that it owes to CC Cotton. This discount of \$77 means it is only required to pay \$1 463, but the balance it owes to CC Cotton is reduced by the total amount of \$1 540 (\$1 463 plus \$77).

Recording: General Journal



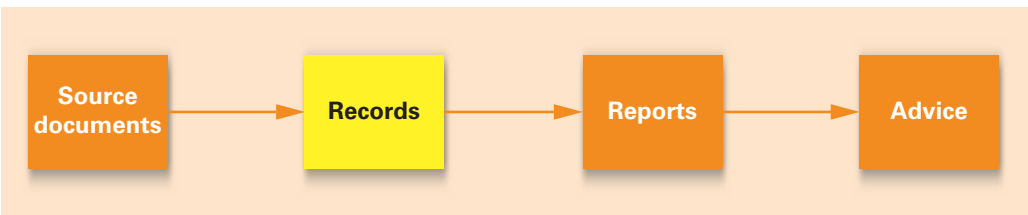
On 8 March 2030, only \$1 463 has been paid, so this amount is recorded as a credit to the Bank account. At the same time, Linen and McCartney has earned a discount of \$77, so this amount must be credited to Discount revenue. However, the amount owed to the Account Payable will decrease by both amounts (the \$1 463 paid plus the \$77 discount) so it is this total of \$1 540 that must be recorded as a debit to Account Payable – CC Cotton.

This would be recorded in the General Journal as shown in Figure 5.12:

Figure 5.12 General Journal: cash payment to Account Payable with discount

General Journal			
Date	Details	Debit \$	Credit \$
Mar. 8	Account Payable – CC Cotton	1 540	
	Bank		1 463
	Discount revenue		77
	Cash paid to CC Cotton to settle debt, with 5% discount for early payment (EFT 4002)		

Recording: General Ledger



After posting the General Journal, the General Ledger would appear as shown in Figure 5.13:

Figure 5.13 General Ledger: cash payment to Account Payable with discount

General Ledger					
Account Payable – CC Cotton (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Mar. 8	Bank / Discount revenue	1 540	Mar. 3	Inventory / GST Clearing	1 540
Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Mar. 1	Balance	12 000	Mar. 8	Account Payable – CC Cotton	1 463
Discount revenue (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Mar. 8	Account Payable – CC Cotton	77

Note that as a result of this payment, the balance of Account Payable – CC Cotton has been reduced by \$1 540: even though only \$1 463 has been paid, the \$77 Discount revenue is also deducted from the balance owing (leaving the balance at zero). The cross-reference in Account Payable – CC Cotton acknowledges this by identifying both Bank and Discount revenue as the other accounts affected.

On the other hand, the cross-reference in the Discount revenue account refers only to Account Payable – CC Cotton: there is no connection between the Bank and Discount revenue accounts as, by definition, the discount is the amount that has **not** been paid.

Effect on the Accounting equation

A payment to settle an Account Payable where discount revenue is involved will thus have the following effect on the Accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Bank)	1 463
Liabilities	Decrease (Account Payable)	1 540
Owner's equity	Increase (Discount revenue increases Net Profit)	77

Study tip

A settlement discount does **not** reduce Cost of Sales expense (which is incurred at the point of sale): it increases revenue and profit when the cash is paid.

Benefits and costs

While paying Accounts Payable early may generate discount revenue, it is not without its costs and may not be suitable in all business circumstances. As is the case with many decisions, the owner must weigh the potential benefits of paying early against any potential costs.

Benefits

- *Less cash is paid to Accounts Payable*, meaning some cash is retained to make other payments such as wages or other expenses.
- *Net Profit is increased*, as the discount earned is revenue.

Costs

- *Cash is paid to Accounts Payable faster*, meaning there may be less time to generate cash from sales.
- *Cash is unavailable to make other payments*, such as wages or other expenses.



Review questions 5.4

- 1 **Define** the following terms:
 - settlement discount
 - discount revenue.
- 2 **Explain** why a discount received for an early payment to an Account Payable is classified as revenue.
- 3 **Explain** what is meant by the notation '5/7, n/30'.
- 4 **Show** the General Journal entries to record a payment to an Account Payable with discount revenue.
- 5 **Explain** why the cross-reference in the Accounts Payable account includes two other ledger accounts when a discount revenue is earned.
- 6 **Explain** the effect of a payment to an Account Payable with discount revenue on the Accounting equation.
- 7 **List** the benefits of early payments to Accounts Payable.
- 8 **List** the costs of early payments to Accounts Payable.



5.5 Statement of Account

Statement of Account

a summary of the transactions a business has had with a particular Account Payable (or Account Receivable) over a certain period of time (usually a month)

A firm making credit purchases will record (in the Accounts Payable accounts in its General Ledger) the transactions it has with each of its suppliers. At the same time, those suppliers will also keep their own records and then, every month or so, send a **Statement of Account** as a summary of these transactions over that period. This allows each customer to check its own records and also reminds those customers about any debts outstanding, thereby encouraging payment.

A Statement of Account is not evidence of a single transaction with a particular Account Payable, but rather a summary of all transactions that have already occurred in a particular period of time. These transactions should have already been recorded (when they occurred) and should have been verified by the individual source documents (such as purchase invoices, credit notes and EFT payment receipts) related to each transaction.

Figure 5.14 shows a Statement of Account received by Snaps Photographic Equipment from one of its suppliers and Accounts Payable (Pentacks) for April 2030:

Figure 5.14 Statement of Account

 PENTACKS 1 Kookaburra St, Frankston VIC 3199 ABN: 22 098 822 098 STATEMENT OF ACCOUNT				
For period: April 2030				
Account of:	Snaps Photographic Equipment 22 Grace St, Essendon VIC 3041 ABN: 55 20 141 989			
Date	Details	Sales	Payments	Balance
April 1	Balance			550
8	Payment received: thank you (EFT 10245)		495	
	Discount allowed		55	Nil
16	Inv. N3V09	792		792
19	Goods returned (Cr. Note 5167)		154	638
25	Inv. N3V42	572		1 210
Balance owing: 30 April 2030				\$1 210

Study tip

Although the column headings are different, this Statement of Account works the same as a 3-column ledger account.

This Statement of Account would have been produced by Pentacks (the *seller*) to summarise its various transactions with its *customer* (Snaps Photographic Equipment).

However, from the perspective of Snaps Photographic Equipment this Statement of Account would be a summary of their transactions with their *supplier* (Pentacks). Snaps Photographic Equipment should then compare each transaction in this Statement of Account against the source document that was issued at the time, and against the transactions recorded in its own General Ledger, to ensure that its records are accurate and complete. Any differences should be communicated to the supplier or, alternatively, corrected in the records of the business.

Assuming all the transactions matched and were recorded accurately, Figure 5.15 shows how Account Payable – Pentacks would appear in the General Ledger of Snaps Photographic Equipment:

Figure 5.15 General Ledger: Account Payable

General Ledger Account Payable – Pentacks (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 8	Bank / Discount revenue	550	April 1	Balance	550
19	Inventory / GST Clearing	154	16	Inventory / GST Clearing	792
30	Balance	1 210	25	Inventory / GST Clearing	572
		1 914			1 914
			May 1	Balance	1 210

The details as recorded in the Statement of Account are not the same as those used in the account because cross-references must refer to General Ledger account names, but the transactions are the same and result in the same balance of \$1 210 owed to Account Payable – Pentacks.

The transactions in the Statement of Account do not need to be recorded again, but the Statement of Account does allow for the recording of each of these transactions, and the final balance owed to the Accounts Payable, to be checked for accuracy. This supports the *Verifiability* of the firm's records and thereby ensures that the reports are complete and accurate and provide a *Faithful representation* of the balance owed to each Account Payable.

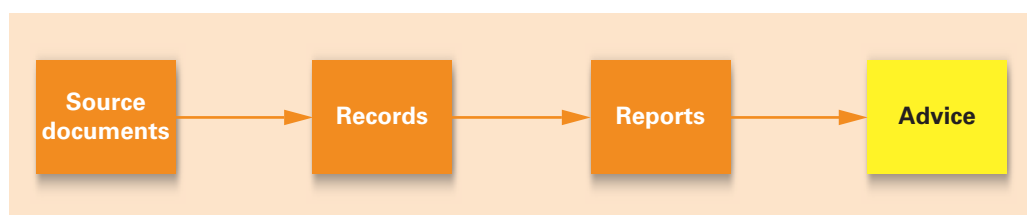


Review questions 5.5

- 1 **Explain** what is shown in a Statement of Account.
- 2 **Explain** how a Statement of Account can be used to ensure reports provide a *Faithful representation* of a firm's financial events.
- 3 **Explain** what action should be taken if discrepancies are detected between a Statement of Account and the firm's General Ledger.
- 4 **State** how many Statements of Account a business will receive in a month. **Justify** your answer.



5.6 Accounts Payable Turnover



Accounts Payable Turnover (APTO)

the average number of days it takes for a business to pay its Accounts Payable

Purchasing inventory on credit brings a number of benefits, so it is important that Accounts Payable are paid 'on time' to ensure that ongoing access to credit facilities is maintained. While this needs to be assessed on an individual basis (by reviewing payments to each individual Account Payable), it is also important that the business has some sense of how its payment practices are working *overall*. This overall assessment is facilitated by calculating the **Accounts Payable Turnover (APTO)**, which measures the average number of days taken to pay Accounts Payable, thereby indicating the effectiveness of the firm in managing payments to its Accounts Payable.

The Accounts Payable Turnover is calculated as shown in Figure 5.16:

Figure 5.16 Formula: Accounts Payable Turnover

$$\begin{aligned}
 \text{Accounts Payable Turnover (APTO)} &= \frac{\text{Average Accounts Payable}}{\text{Net credit purchases (plus GST)}} \times 365 \\
 &= \text{Average number of days}
 \end{aligned}$$

The formula uses the average balance of Accounts Payable (derived by adding the starting and ending balances, and then dividing by 2) to accommodate for any changes in that balance over the period, and then multiplies by 365 so that the answer is expressed in terms of days. It also uses 'net' credit purchases (plus GST) to account for any returns of inventory, as these will reduce the amount that must be paid.

Markwell Mirrors has provided the following information relating to its Accounts Payable for 2030:

Example

Credit purchases (including GST)	\$275 000
Purchase returns (including GST)	\$17 600
Accounts Payable as at 1 January 2030	\$44 000
Accounts Payable as at 31 December 2030	\$46 000
Accounts Payable Turnover for 2029	69 days
Credit terms offered by suppliers	60 days

Calculating Accounts Payable Turnover

The Accounts Payable Turnover for Markwell Mirrors for 2030 would be calculated as shown in Figure 5.17:

Figure 5.17 Calculation: Accounts Payable Turnover

$$\begin{aligned}
 \text{Accounts Payable Turnover (APTO)} &= \frac{(44\,000 + 46\,000) / 2}{275\,000 - 17\,600} \times 365 \\
 &= \frac{45\,000}{257\,400} \times 365 \\
 &= 64^* \text{ days (63.8 rounded up to the nearest day)}
 \end{aligned}$$

This APTO indicates that in 2030 Accounts Payable were paid on average every 64 days.

Analysing Accounts Payable Turnover

When assessing any aspect of business performance, it can be useful to compare its results against some type of 'benchmark' or 'standard'. In the case of Accounts Payable Turnover, these benchmarks allow the owner to assess whether the business is paying its Accounts Payable *faster or slower* than:

- last year (performance in *previous periods*)
- expected (*budgeted* performance) or
- its competitors (performance of *similar businesses*, sometimes reflected in an *industry average*).

In this example, Markwell Mirrors' Accounts Payable Turnover of 64 days in 2030 is actually five days *faster* than the 69 days taken in 2029, indicating an improvement in its management of Accounts Payable. If a figure for budgeted Accounts Payable Turnover was available, this could also be used to assess management of payments to Accounts Payable.

However, a more significant benchmark specifically for assessing Accounts Payable Turnover is the *credit terms offered by suppliers*, which sets the maximum number of days for the business to pay. In this example, Markwell Mirrors' Accounts Payable Turnover indicates it is paying on average every 64 days, which is four days *slower* than

Study tip

Changes in APTO should be described as *faster or slower* than previous periods; than budgeted; than similar businesses; or than credit terms.

the credit terms of **60 days offered by its suppliers**. This is *unsatisfactory* and may lead to negative consequences for the business, including:

- strained relationships with suppliers
- a reduction in the firm's credit rating (making it difficult to establish lines of credit in the future)
- a loss of credit facilities (requiring a change of supplier or reliance on cash purchases only).

Of course, the Accounts Payable Turnover is an average, and it is likely that payments to individual Accounts Payable are being made faster and slower than this average. Therefore, it is also necessary to review the timing of payments to each individual Account Payable.

Managing Accounts Payable

liquidity

the ability of a business to meet its short-term debts as they fall due

Using the credit provided by Accounts Payable, businesses are more able to manage when they pay for their inventory, and this gives them an important resource for managing their **liquidity** – their ability to meet their short-term debts as they fall due.

The benefits of purchasing on credit

To begin with, the ability to make credit purchases means that a business can obtain inventory, which it can then sell to generate profit and cash, even if it has little (or no) cash on hand. Secondly, the payment terms would ideally allow the business time to sell the inventory and collect the cash from the customer before payment (to the Accounts Payable) is required, ensuring the business is able to meet this debt as it falls due. This also means the business does not have to use its existing cash on hand, so this cash can be used to meet other payments as *they* fall due.

On the other hand, a business that is unable to purchase on credit from its existing supplier/s may be forced to use cash to purchase inventory, reducing its cash on hand and leaving it with no time to make sales and collect cash before making payments. As an alternative, it could look for other suppliers who are willing to offer credit, but this may mean changes to inventory available for sale, with a loss of sales a possibility if customers do not like the new inventory lines.

Strategies for managing Accounts Payable

Having access to credit therefore makes it critical that Accounts Payable are managed effectively, and this can be done by following some broad principles:

- **Develop a strong relationship with each supplier**

This can be of great benefit in terms of accessing better prices, better credit terms, or better quality inventory. Relationships between businesses are often relationships between the people who operate them, and if these personal interactions are ethical and strong, it increases the chances that so too will be their business and financial interactions.

- **Pay within, but as close as possible to, the credit terms**

Paying on time ensures that Accounts Payable will continue to provide ongoing access to credit facilities and the benefits that this brings. However, the business should wait until the end of the credit terms, firstly to give itself time to generate the cash, and secondly so that it can retain cash to meet other payments as they fall due. By contrast, a business that continually pays late may incur a reduction in its credit rating (limiting its access to future credit or favourable credit terms) or even the loss of credit facilities altogether (see above).

Ethical considerations



- **Pay early to earn discount revenue (if available and affordable)**

Paying early reduces the total amount of cash paid and also increases profit through the discount revenue that it generates. However, it does require that there is enough cash available to pay the Accounts Payable and still meet other payment requirements.

- **Check each Statement of Account against the Accounts Payable ledger account**

The Statement of Account provided by each supplier can be used to ensure the *Verifiability* of the information recorded in the firm's Accounts Payable accounts in its General Ledger. Checking that each account is accurate and complete not only means that the firm's reports will provide a *Faithful representation* of the balances owed to the Accounts Payable, but also reduces the possibility of over or under payment.

- **Appoint an Accounts Payable Officer/Clerk**

An Accounts Payable Officer/Clerk has responsibility for record keeping (including checking the Statements of Account), liaising with each Account Payable and ensuring that accounts are paid on time (and with appropriate discounts). This would of course bring a financial cost but might be beneficial overall in ensuring that Accounts Payable are managed effectively.

- **Consider non-financial information**

Information that is not included in the reports, or determined by dollars and cents, can be critical to managing Accounts Payable and could include:

- the supplier's attitude to their own credit terms (and how likely they are to 'chase' late payments)
- the personal relationship with the supplier (which may permit a more 'relaxed' approach to paying on time or even prompt a faster payment as a means of support)

- the strength of customer demand for the products provided by a particular supplier and whether alternative suppliers exist, with suppliers who provide inventory that is:
 - in high demand (for reasons of fashion or quality)
 - essential to the sale of other items (like particular brands of footwear in a particular sport or popular games for gaming consoles)
 - unavailable from other suppliers
 - given 'special' attention.

- **Communicate in a timely fashion**

At times there may be discrepancies with particular Accounts Payable (about records, transactions or business agreements), and at other times it may be difficult to pay within the credit terms. At these times, in particular, communication that is clear and timely may help a supplier understand the firm's perspective, and this can be important to maintaining the ongoing relationship with that supplier.

In all of these dealings, **acting in an ethical manner** – particularly by acting with integrity and being honest (and open, within the bounds of commercial confidentiality) – remains essential, as it does in all business decision-making.

Ethical considerations



Review questions 5.6

- 1 **State** what is measured by Accounts Payable Turnover (APTO).
- 2 **Show** the formula to calculate Accounts Payable Turnover.
- 3 **List** three benchmarks that can be used to assess Accounts Payable Turnover.
- 4 **Describe** the importance of 'credit terms' when assessing Accounts Payable Turnover.
- 5 **Define** the term liquidity and **explain** how purchasing inventory on credit can help a business to manage its liquidity.
- 6 **State** three negative consequences of exceeding the credit terms offered by suppliers.
- 7 **List** five strategies for managing Accounts Payable effectively.
- 8 **Explain** how ethical considerations and personal relationships can be useful in the effective management of Accounts Payable.

Ethical considerations



Where have we been?

- Credit transactions involve the exchange of goods at one point in time and the exchange of cash at a later date.
- Credit purchases are verified by a purchase invoice; payments to Accounts Payable are usually verified by an EFT payment receipt; purchase returns are verified by a credit note from the supplier.
- GST on credit purchases decreases any GST liability to the ATO; GST on purchase returns increases any GST liability to the ATO.
- A settlement discount is offered by suppliers for early payment, reducing the cash paid and generating discount revenue.
- Financial and ethical considerations are important when purchasing inventory.
- A Statement of Account summarises all transactions with a particular Account Payable.
- Accounts Payable Turnover measures the average number of days taken to pay Accounts Payable.
- Strategies to manage Accounts Payable include developing a strong relationship with each supplier; paying within, but as close as possible to, the credit terms; paying early to earn discount revenue (if available and affordable); checking each Statement of Account against the Accounts Payable ledger account; appointing an Accounts Payable Officer/Clerk; considering non-financial information; and communicating in a timely fashion.

Exercises



Exercise 5.1

Credit purchase

The following document was handed to the manager of Porcelain Magic, a shop that sells tea sets and porcelain statues:



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		<i>Fine Tea China</i> 322–335 Swindle St, Melbourne VIC 3000 ABN: 24 664 237 190		
		Invoice: S.90 Terms: 5/7, n/30		
Tax invoice				
Charge to: Porcelain Magic 245 Bulla Rd, Keilor VIC 3043 ABN: 82 100 346 275				
Date	Details	Qty	Unit Price \$	Total \$
4 May 2030	Fine China Tea Sets	10	120	1 200
	GST (10%)			120
Total owing				\$1 320

Required

- Identify** the source document above, and **describe** the transaction it verifies.
- Record** this transaction in the General Journal of Porcelain Magic.
- Show** how the General Ledger of Porcelain Magic would appear after this transaction was recorded.
- Explain** why GST on credit purchases does **not** affect the valuation of inventory.
- State** the effect of this transaction on the Accounting equation of Porcelain Magic.
- Explain** how ethical purchasing could affect the operations of Porcelain Magic.

Ethical considerations



Exercise 5.2

Credit purchases

Phil's Pianos has provided the following list of transactions for August 2030:

- Aug. 5 Purchased 3 grand pianos on credit from Yamaha. Each grand piano cost \$4 000 (plus GST) (Inv. Yh3764).
- 8 Bought 3 upright pianos from Yamaha for \$1 100 (including GST) each (Inv. Yh4801).
- 15 Sold 2 grand pianos for \$6 000 (plus GST) each (Rec. 301). These pianos had been purchased on 5 August 2030.
- 24 Purchased a special model piano from Yamaha for \$2 200 (including GST) (EFT 430).
- 28 Received delivery of 4 grand pianos from Yamaha, at a total cost of \$17 160 (including GST) (Inv. Yh5132).



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Required

- a. **Record** the transactions for August 2030 in the General Journal of Phil's Pianos.
- b. **Explain** why the invoices provided to Phil's Pianos do **not** run in sequence.
- c. **Explain** how the transaction on 5 August 2030 affects the Accounting equation of Phil's Pianos.
- d. **Explain** how the Going concern assumption affects the recording of the transaction on 8 August 2030.
- e. **Calculate** the Gross Profit earned on the transaction on 15 August 2030.
- f. Referring to your answer to part a, **explain** your treatment of the transaction on 24 August 2030.
- g. **Show** how the General Ledger of Phil's Pianos would appear after all the transactions for August 2030 were recorded.

**Exercise 5.3****Credit purchases and payments to Accounts Payable**

Glow Warm is a lighting store and has provided the following information relating to its operations for November 2030:

Document A

 Edison Bank Funds transfer	
Date of payment	2/11/2030
From	Glow Warm A/c: 632552401
To	Shock Electrics BSB: 6321 A/c: 203410552
For	Payment to Account Payable
Amount	\$800
Reference	563099



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**Additional information:**

- Nov. 13 Glow Warm purchased inventory worth \$5940 including GST from Shock Electrics (Inv. 553)
- 26 Glow Warm received notification from Shock Electrics that it was investigating concerns about the quality of the products it had delivered during September 2030

Required

- a. **Identify** two features of Document A that indicate it is a payment to an Account Payable.
- b. **Explain** why Document A does not identify any GST.
- c. **Record** the relevant transactions in the General Journal of Glow Warm.

- d. **Show** how the General Ledger of Glow Warm would appear after all the information was recorded.
- e. **Explain** how the transaction on 13 November 2030 would affect:
- Inventory
 - Account Payable – Shock Electrics
 - GST Clearing.
- f. Referring to the information on 26 November 2030, **explain** the importance of *Timeliness* in business decision-making.
- g. **Discuss** possible actions Glow Warm could take in response to the information received on 26 November 2030.



Exercise 5.4

Purchase return

Mentone Music Shop sells musical instruments and as at 1 February 2030 owed \$23 000 to an Account Payable – Musical Mayhem. It has not yet recorded the following document:



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MUSICAL MAYHEM

ABN: 61 363 217 404



**72 City View Rd
Balwyn VIC 3930**

TAX INVOICE
Credit Note 480
(Original)
8 February 2030

Returned by:	Mentone Music Shop (ABN: 12 945 362 733) 91 Balcombe Rd, Mentone VIC 3194			
Item no.	Description	Qty	Unit Price	\$
205	Saxophone – Tenor	2	500	1 000
	GST 10%			100
	Total			1 100
Reason:	Goods damaged in transit			

The owner of Musical Mayhem, Erin Carew, thinks that the damage may have been caused by the staff of Mentone Music Shop but agreed to this transaction due to her working relationship with the owner of Mentone Music Shop, David Grenville, with whom she has traded for years.

Required

- a. **Identify** the source document above, and **describe** the transaction it verifies.
- b. **Record** this transaction in the General Journal of Mentone Music Shop.
- c. **Show** how the General Ledger of Mentone Music Shop would appear after this transaction was recorded.
- d. **Explain** the effect of this transaction on the GST liability of Mentone Music Shop.
- e. **Explain** how Mentone Music Shop can benefit from conducting itself ethically in its dealings with Musical Mayhem.

**Ethical
considerations**

**Exercise 5.5****Purchases, payments and returns**

Benny Electricals purchases its inventory from Freezing Fridges, and its transactions for April 2030 were as follows:

April	6	Purchased 4 fridges from Freezing Fridges at \$400 (plus GST) each (Inv. 45)
	11	Paid \$8 000 to Freezing Fridges
	18	Sold 3 of the fridges purchased on 6 April 2030 at a selling price of \$1 100 (including GST) each (Rec. 74)
	26	Purchased 5 fridges from Freezing Fridges at a total cost of \$2 310 (including GST) (Inv. 51)
	29	Benny determined that there was too much inventory on hand so returned one of the fridges purchased on 26 April 2030 (Cr. Note 38)

Additional information:

As at 1 April 2030, Benny Electricals owed Freezing Fridges \$8 000 and had a GST balance of \$350 CR.

Required

- Suggest** what type of source document would be able to verify the transaction on 11 April 2030.
- Record** the transactions in the General Journal of Benny Electricals. Narrations are **not** required.
- Complete** the following accounts in the General Ledger of Benny Electricals after all the information for April 2030 had been recorded:
 - Account Payable – Freezing Fridges
 - GST Clearing.
- Explain** the effect on the Accounting equation of the transaction on 29 April 2030.
- Explain** how Account Payable – Freezing Fridges would be reported in the Balance Sheet of Benny Electricals as at 30 April 2030.



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**Exercise 5.6****Discount revenue**

Piia's Party House sells balloons and other party supplies, and as at 1 February 2030, it owed \$1 870 to J&M Papermills for inventory purchased on 31 January 2030. The following document has not yet been recorded:



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Bank of Finland Piia's Party House (A/c: 062 201 100) EFT payment	
Date	5 February 2030
To	J&M Papermills A/c: 021 019 741
Notes	Payment to Account Payable
Amount	\$1 683
Reference	100325

Additional information:

- Inventory is purchased from J&M Papermills on terms of 10/7, n/60.
- The owner of Piia's Party House is certain a discount will apply to the transaction on 5 February 2030.
- On 15 February 2030, Piia's Party House bought more inventory from J&M Papermills for \$2 750 (including GST) (Inv. JB201).

Required

- Explain** why J&M Papermills would offer a settlement discount to its customers.
- Explain** why the owner of Piia's Party House is correct about the discount applying to the transaction on 5 February 2030.
- Calculate** the discount revenue earned on 5 February 2030.
- Record** the transaction on 5 February 2030 in the General Journal of Piia's Party House.
- Show** how the General Ledger of Piia's Party House would appear after recording the transactions for February 2030.
- Explain** why the discount earned on 5 February 2030 would be reported as revenue in the Income Statement of Piia's Party House.
- Given that the GST and discount rate are both 10%, **explain** why the amount of the discount revenue earned on 5 February 2030 is **not** the same as the amount of the GST on the purchase made on 31 January 2030.

**Exercise 5.7****Accounts Payable: cash and credit transactions**

Diana Adams is the owner of Diana's Jewellery, which owed \$1 700 to the ATO and \$15 950 to Accounts Payable – Carter Diamonds as at 1 June 2030. Diana has provided the following list of transactions for June 2030:

June	1	Paid GST settlement.
	3	Paid Carter Diamonds balance outstanding as at 1 June 2030, less discount.
	5	Cash sale of jewellery for \$12 000 (plus GST). This jewellery had a cost price of \$8 000.
	8	Paid wages \$1 200.
	12	Purchased inventory on credit from Carter Diamonds for \$8 000 (plus GST). Cash purchase of additional display cabinets for \$6 050 (including GST).
	14	Paid cash to Stone Works for inventory worth \$4 500 (plus GST).
	17	Returned some jewellery to Carter Diamonds worth \$1 500 (plus GST).
	20	Paid Carter Diamonds in full settlement of amount owing.
	23	Cash sale of jewellery for \$9 900 (including GST). This jewellery had a cost price of \$6 000.
	26	Cash drawings \$1 000.
	29	Credit purchase of jewellery from Carter Diamonds for \$11 000 (including GST).
	30	Paid electricity bill of \$230 (plus GST).

Additional information:

- Diana's Jewellery has lost all of the source documents relating to the transactions for June 2030.
- Carter Diamonds offers credit terms of 8/10, n/45.



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Required

- a. Referring to the Qualitative characteristics, **explain** how the loss of the source documents will affect the Accounting information of Diana’s Jewellery.
- b. **Record** the transactions on 3, 12, 17 and 23 June 2030 in the General Journal of Diana’s Jewellery. Narrations are **not** required.
- c. **State** the effect of the transaction on 3 June 2030 on the Accounting equation of Diana’s Jewellery.
- d. **Show** how the General Ledger of Diana’s Jewellery would appear after recording the transactions for June 2030.
- e. **Balance** the Bank, Inventory and GST Clearing accounts.
- f. **Explain** how the GST Clearing account would be reported in the Balance Sheet of Diana’s Jewellery as at 30 June 2030.



Exercise 5.8
Accounts Payable

Thommo’s Toys presented the following summary of its transactions for October 2030:

Inventory – balance 1 October 2030	\$42 000	
Accounts Payable – balance 1 October 2030	34 000	
GST Clearing – balance 1 October 2030	800	CR
Credit purchases of inventory	50 000	plus GST
Cash purchases of inventory	3 300	including GST
Cash paid to Accounts Payable	59 400	
Discount revenue	600	
Cash sales	90 000	plus GST (cost price \$60 000)
GST paid on expenses	2 500	
Purchase returns	1 100	including GST

Additional information:

All credit purchases of inventory are from Wilson Industries.

Required

- a. **State** the type of source document that would verify the purchase returns.
- b. **State** two reasons why inventory may be returned to a supplier.
- c. **Show** how the Inventory, Account Payable – Wilson Industries and GST Clearing accounts would appear in the General Ledger of Thommo’s Toys after recording the transactions for October 2030. Transaction dates are **not** required.
- d. **Calculate** the percentage discount given to Thommo’s Toys by Wilson Industries.
- e. **Explain** why inventory should be purchased on credit whenever possible.
- f. **Discuss** the benefits and costs of Thommo’s Toys paying its Accounts Payable early.



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**Exercise 5.9****Statement of Account**

The owner of Celtic Sensations has received the following source document in the mail:



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 Look of the Irish ABN: 34 221 768 999 110 Main Rd, Greensborough VIC 3085		5 July 2030		
STATEMENT OF ACCOUNT				ACC: 8613
Customer:	Celtic Sensations 45 Burke Rd, Camberwell VIC 3350	ABN: 16 422 031 164		
Date	Particulars	Debit	Credit	Balance
June 1	Balance b/fwd			3300
3	Thank you – payment EFT 143		3102	
	Discount allowed		198	nil
12	Inv. MH 365	1320		1320
19	Credit Note 43		220	1100
24	Thank you – payment EFT 167		500	600
29	Inv. MH 372	1650		2250
Days outstanding		Current	30 – 60	60+
Amount outstanding		2250		Nil
Please pay any outstanding amounts immediately to ensure continuance of supply				

Required

- Calculate** the percentage discount given on 3 June 2030.
- Record** the transactions on 3 and 12 June in the General Journal of Celtic Sensations.
- Explain** how the transaction on 19 June 2030 would affect the Accounting equation of Celtic Sensations.
- Complete** the account of Account Payable – Look of the Irish in the General Ledger of Celtic Sensations.
- Explain** how Look of the Irish would be reported in the Balance Sheet of Celtic Sensations.
- Explain** how Celtic Sensations would be reported in the Balance Sheet of Look of the Irish.
- Explain** how this document supports the Qualitative characteristics of financial information.



Exercise 5.10
Accounts Payable Turnover

Pringle Pumps has provided the following information for 2030:

Credit purchases including GST	\$91 300
Returns to Accounts Payable including GST	\$7 150
Accounts Payable as at 1 January 2030	\$12 000
Accounts Payable as at 31 December 2030	\$8 000
Credit terms offered by suppliers	40 days
Accounts Payable Turnover (2029)	38 days



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Required

- a. **State** what is measured by Accounts Payable Turnover.
- b. **Calculate** Accounts Payable Turnover for Pringle Pumps for 2030.
- c. **State** two reasons why the owner of Pringle Pumps should be concerned about Accounts Payable Turnover in 2030.
- d. **Explain** how exceeding the credit terms offered by suppliers can negatively affect operations and liquidity.
- e. **Explain** two actions the owner of Pringle Pumps could take to ensure the continuation of credit facilities in 2031.

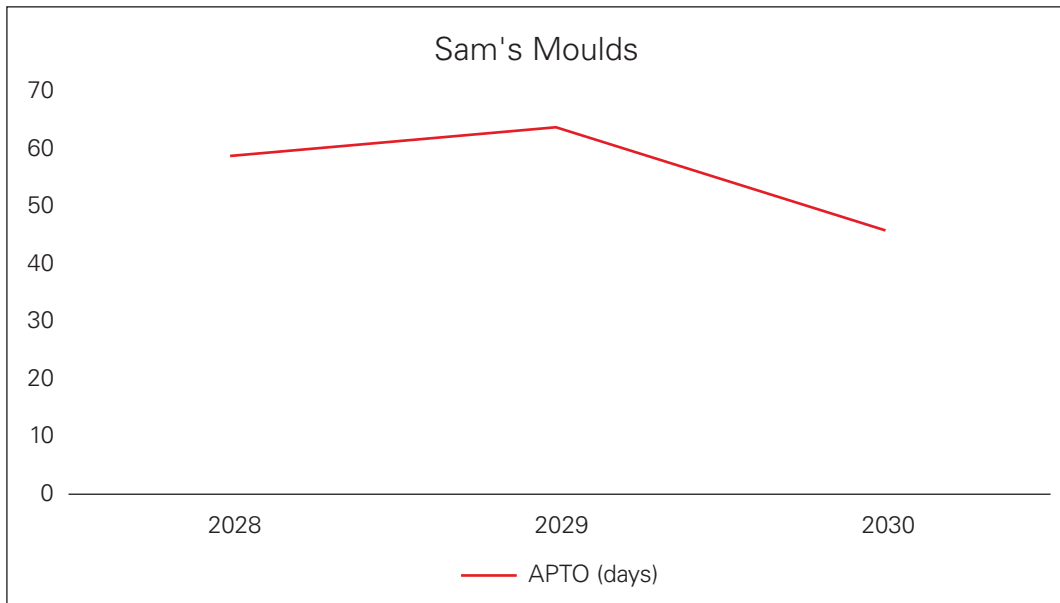




Exercise 5.11

Accounts Payable Turnover

Sam's Moulds has provided the following information for 2030



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Additional information:

- The suppliers of Sam's Moulds offer credit terms of n/60.
- Sam, the owner of Sam's Moulds, will sometimes delay payments to Accounts Payable until well after the due date.

Required

- Describe** the trend in the Accounts Payable Turnover of Sam's Moulds from 2028 to 2030.
- Explain** two possible reasons for the change in the Accounts Payable Turnover of Sam's Moulds from 2028 to 2029.
- Explain** one action the suppliers may have taken that explains the change in the Accounts Payable Turnover of Sam's Moulds from 2029 to 2030.
- Explain** why the owner of Sam's Moulds may be concerned about Accounts Payable Turnover for 2030.
- Discuss** the benefits and costs of the owner's payment strategy.
- Discuss** whether Sam's Moulds is managing its Accounts Payable in a financially and ethically responsible manner.

Ethical considerations

Chapter 6

Accounts Receivable: documents, the GST and the General Journal



Learning intentions

After completing this chapter, you should be able to:

- **apply** Accounting assumptions and Qualitative characteristics
- **identify** transactions with Accounts Receivable from source documents
- **record** transactions with Accounts Receivable in the General Journal and General Ledger
- **explain** the effect on the Accounting equation of transactions with Accounts Receivable
- **explain** how transactions with Accounts Receivable affect the financial reports
- **apply** Accounting skills to transactions with Accounts Receivable including:
 - credit sales of inventory (including GST)
 - receipts from Accounts Receivable, including discounts
 - sales returns to Accounts Receivable
- **apply** credit terms and **calculate** settlement discounts
- **discuss** ethical considerations in business decision-making
- **identify** the effect of GST on transactions with Accounts Receivable
- **calculate** and **analyse** Accounts Receivable Turnover
- **discuss** strategies to manage Accounts Receivable.

Key terms

After completing this chapter, you should be familiar with the following terms:

- Account Receivable
- credit sale
- sales invoice
- sales return
- discount expense
- Accounts Receivable Turnover (ARTO)
- Accounts Receivable Ageing Analysis.



6.1 Credit sales and the GST

Account Receivable

a customer to whom inventory has been sold on credit, and the amount is still owing for those sales (also called a 'debtor')

credit sale

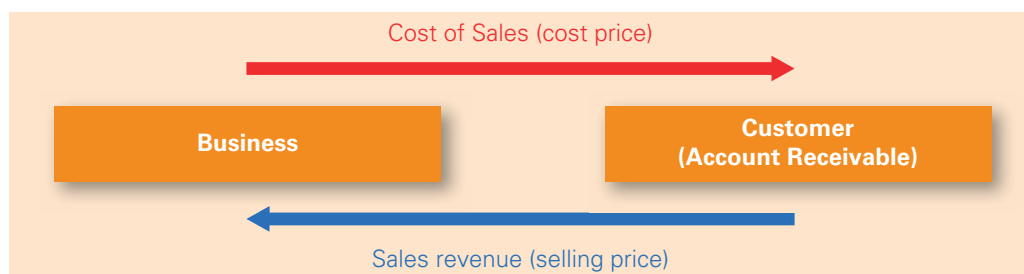
a transaction that involves selling inventory on credit, with the provision of the inventory on one date, followed by the receipt of cash at a later date

Whereas Chapter 5 considered how to identify and record transactions affecting Accounts Payable, this chapter applies those skills to transactions affecting **Accounts Receivable**, including credit sales (with GST), receipts from Accounts Receivable (with and without discounts) and sales returns (with GST).

Credit sales

In all credit transactions, the exchange of cash happens sometime after the goods have been exchanged. However, with a **credit sale** there is an additional factor to consider, because there are two different valuations of the inventory sold: the **cost price** paid by the business at the time of purchase, and the **selling price** charged to the customer at the time of sale.

Figure 6.1 Credit sale



At the point of sale, a credit sale earns **Sales revenue** valued at the **selling price** charged to the customer (who is also recognised as an Account Receivable). At the same time, **Cost of Sales expense** is incurred to recognise the **cost price** of the inventory that has been sold (and Inventory decreases). The difference in these two valuations represents the Gross Profit earned from the sale.

The **receipt of cash from the Account Receivable** at some point in the future is simply recognised as an increase in Bank and decrease in Accounts Receivable.

Qualitative characteristics and Accounting assumptions

As with credit purchases, it is only possible to recognise credit sales because of the application of the Accrual basis and Going concern assumptions.

The Accrual basis assumption states that the Elements of the reports are recognised when they satisfy the definitions and recognition criteria so that profit is calculated by deducting expenses incurred from revenues earned in a particular Period. For credit sales, revenue is recognised as earned, even though the cash has not been received, because **at the point of sale** assets (Accounts Receivable) and owner's equity increase.

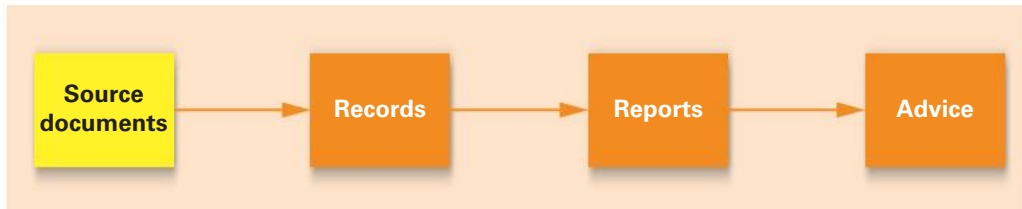
Further, the amount yet to be received from the Account Receivable can be recognised as an asset because the Going concern assumption assumes the business will still be operating in the future when the cash is due to be received.

Applying these assumptions and recognising the revenue earned from credit sales at the point of sale also ensures **Relevance** in the reports because all information capable of making a difference to decision-making (specifically, the Sales revenue earned and the amount owed to the business by the Account Receivable) is included in the financial statements.

On 8 July 2030, Vixen Sportswear sold inventory to SE Netball League for \$600 plus \$60 GST (Inv. 41). The inventory had a cost price of \$400.

Example

Source document



When a business makes a credit sale, it must issue a **sales invoice** to the customer (Account Receivable) that satisfies the requirements of a tax invoice showing, among other details, the total amount owing and the GST on the sale. Figure 6.2 shows how such a sales invoice may appear:

sales invoice

a source document used to verify a credit sale of inventory to an Account Receivable

Study tip

First identify the Accounting entity for whom you are Accounting, as a credit sale for one entity (e.g. Vixen Sportswear) is a credit purchase for another (e.g. SE Netball League).

Study tip

Because these documents are issued by the business for whom we are Accounting, sales invoice numbers will run in sequence.

Figure 6.2 Sales invoice

 Vixen Sportswear Plenty Rd, Bundoora 3083 ABN: 20 114 653 989		8 July 2030	
Charge to:	SE Netball League ABN 98 764 885 101	TAX INVOICE Inv 41	
Deliver to:	43 Klauer St Seaford VIC 3199	Duplicate Terms: 10/7, n/30	
Qty	Item	Unit price \$	Total cost \$
10	Hoodies – Swifts Netball Club	60.00	600.00
	GST (10%)		60.00
	Total		660.00
less	Amount paid		Nil
	Balance owing		660.00

As with all invoices, the name of the seller appears at the top of the document, meaning this document records a sale by Vixen Sportswear. Note also that it is a 'duplicate' as the original has been provided to the customer, the Account Receivable – SE Netball League (who is identified in the document as the business to 'Charge to' and 'Deliver to').

The sales invoice also indicates the credit terms (10/7, n/30) and, by virtue of the fact that the 'Amount paid' is nil, that \$660 remains owing by the Account Receivable.

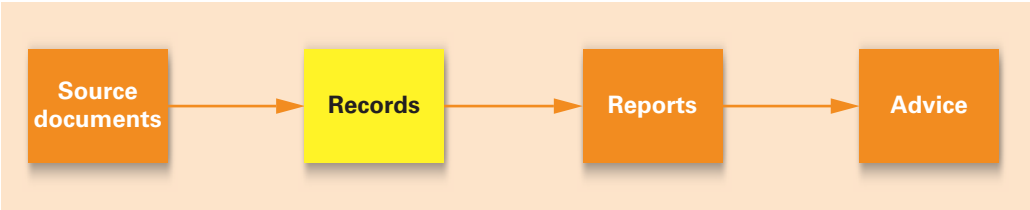
Note, however, that the sales invoice does **not** identify the \$400 cost price of the inventory as the seller (Vixen Sportswear) does not want to disclose to its customers the mark-up it has applied for fear that the customers will feel empowered to negotiate vigorously for a lower selling price.



Video 6.1

Recording a credit sale in the General Journal

Recording: General Journal



As a result of this credit sale, and the application of the Accrual basis assumption, Vixen Sportswear must credit its Sales account by \$600 to recognise the revenue that it has earned on 8 July 2030.

In addition, Vixen Sportswear is obliged to charge its customers GST, calculated as 10% of the selling price. However, this GST is charged to the customer on behalf of the ATO, and therefore owed to the ATO, so it must be recorded as a credit of \$60 to the GST Clearing account to recognise this increase in its GST liability.

Taken together, this means that Vixen Sportswear is owed \$660 by its Account Receivable: \$600 for the inventory sold, plus \$60 for the GST on that sale. This will require a debit of \$660 to the current asset Account Receivable – SE Netball League representing the present economic resource (the cash due to be received from SE Netball League) that it controls (because it can specify when the amount must be repaid or that the inventory must be returned) as a result of past events, which will generate cash in the next 12 months.

Finally, the expense incurred from the sale is recorded by a debit to the Cost of Sales account, and the reduction in Inventory recorded by a credit to this account, both at cost price of \$400. These entries are not affected at all by the GST.

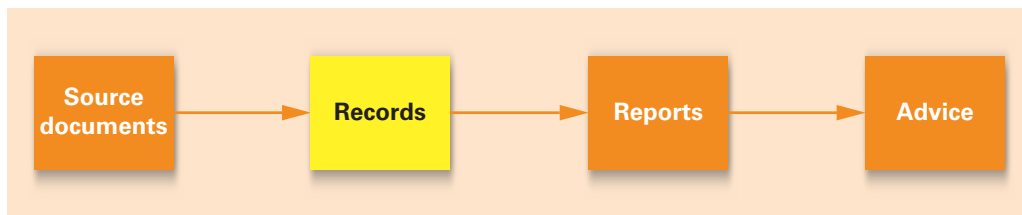
All this would be recorded in the General Journal as shown in Figure 6.3:

Figure 6.3 General Journal: credit sale with GST

General Journal			
Date	Details	Debit \$	Credit \$
July 8	Account Receivable – SE Netball League	660	
	Sales		600
	GST Clearing		60
	Cost of Sales	400	
	Inventory		400
	Credit sale of 10 hoodies to SE Netball League (Inv. 41)		

A credit sale thus results in two separate, but balancing, sets of debits and credits: one using the selling price and one using the cost price. As always, the narration is a description of the transaction, including the items of inventory (10 hoodies) and the source document (Inv. 41), to ensure the information is Verifiable (can be checked against the source document) and provides a Faithful representation of what has occurred: complete, free from material error and neutral (without bias).

Recording: General Ledger



After posting the General Journal, the General Ledger would appear as shown in Figure 6.4:

Figure 6.4 General Ledger: credit sale with GST

General Ledger					
Account Receivable – SE Netball League (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 8	Sales / GST Clearing	660			
Sales (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 8	Account Receivable – SE Netball League	600
GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 1	Balance	2 000
			8	Account Receivable – SE Netball League	60
Cost of Sales (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 8	Inventory	400			
Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	28 000	July 8	Cost of Sales	400

The **\$660** debited to the Account Receivable includes **\$600** worth of sales plus **\$60** GST, so both **Sales** and **GST Clearing** are noted in the cross-reference. However, the Sales and GST Clearing accounts are not connected to each other, so the cross-reference in these accounts is simply Account Receivable – SE Netball League.

Crediting the GST Clearing account increases the liability to the ATO (in this case, by **\$60**, or from \$2 000 to \$2 060).

Effect on the Accounting equation

A credit sale of inventory will thus have the following effect on the Accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Increase (Increase Accounts Receivable \$660 , decrease Inventory \$400)	260
Liabilities	Increase (GST Clearing)	60
Owner's equity	Increase (Sales revenue \$600 less Cost of Sales \$400)	200

This shows that although the GST on the sale increases the amount owed by the Account Receivable and increases the GST liability owed to the ATO, it does not affect the revenue earned or expense incurred on the sale, and therefore has no effect on profit.

Ethical considerations

Ethical considerations

When selling inventory on credit, a business must give due consideration to:

- the nature of the goods it is selling
- the customer's capacity to pay.

Chapter 5 discussed in detail the need for businesses to consider the relationship between the quality and price of what they purchase, and their legal and ethical obligations to provide goods for sale that are safe and 'socially and environmentally responsible' (both in terms of the product itself and how it is produced).

Further considerations apply when those goods are sold on credit. The customer's ability to repay is an important *financial* consideration, as debts that cannot be repaid will cost the business both in terms of cash (that is not received) and profit (through bad debts expenses).

However, it is also an important *ethical* consideration, especially where credit terms are offered to customers who cannot really afford to make the subsequent repayments. Sales made in these circumstances may generate a short-term benefit for the business but in the longer term can distort resource allocation, as these customers are forced to make repayments (for goods they could not really afford, and perhaps did not need) at the expense of other more important items like accommodation, school fees or even healthy food.

And given that distorted resource allocation can undermine the very health of the economy on which each business relies, perhaps businesses are wise to consider the ethical and financial ramifications as complementary when making decisions about selling on credit.



Review questions 6.1

- 1 Define** the following terms:
 - credit sale
 - Account Receivable.
- 2 Explain** how the Accounting assumptions support the recognition of credit sales.
- 3 Explain** how the recording of credit sales ensures *Relevance* in the Balance Sheet.
- 4 Identify** the source document used to verify a credit sale.
- 5 Explain** why the cost price of inventory sold is **not** shown on the source document used to verify a credit sale.
- 6 Show** the General Journal entries to record a credit sale.
- 7 Explain** why an Account Receivable is reported as an asset.
- 8 Explain** how GST on a credit sale will affect:
 - GST owed to the ATO
 - the profit on the sale.
- 9 State** the effect of a credit sale on the Accounting equation.
- 10 Explain** how ethical decision-making regarding credit sales can improve business performance.

Ethical consideration



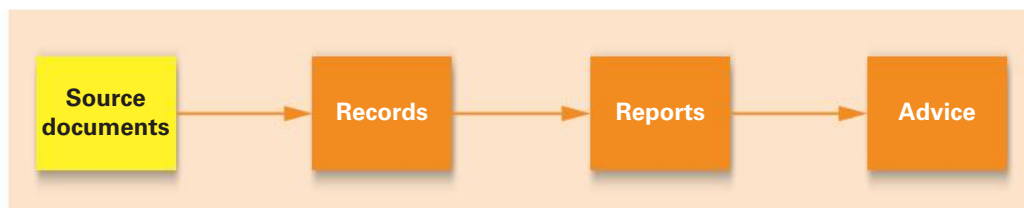
6.2 Receipts from Accounts Receivable

Having made a sale on credit, the business will at some point in the future receive cash from the Account Receivable to settle the amount owing.

On 16 July 2030, Vixen Sportswear received \$350 from SE Netball League (EFT rec. 1635).

Example

Source document



The most common ways for a business to receive cash from an Account Receivable would be by cash received at the business premises or, increasingly, by EFT (a direct credit or direct deposit into the firm's bank account).

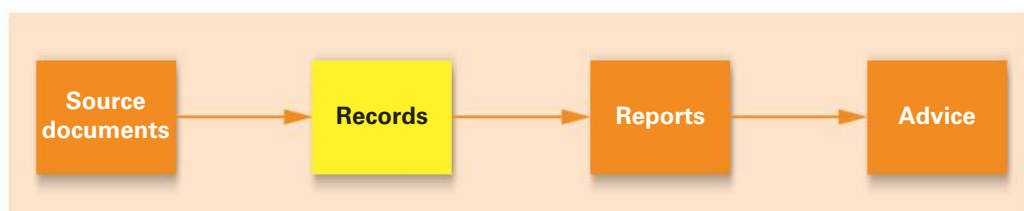
Assuming the cash was received by EFT deposit, the document may appear as shown in Figure 6.5:

Figure 6.5 EFT receipt: receipt from Account Receivable

Empire Bank	
Vixen Sportswear (A/c: 003 003 045)	
Funds transfer	
Date of receipt	16/7/2030
From	SE Netball League A/c: 323 554 106
For	Payment towards balance owing
Amount	\$350
Reference	1635

There is no GST to account for when cash is received from an Account Receivable as it was already recognised at the point of sale (in this case, on 8 July 2030).

Recording: General Journal



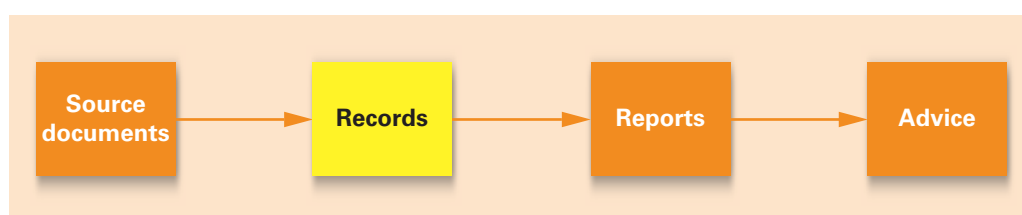
As a cash transaction, a receipt from an Account Receivable increases the **Bank** so this account is **debited**. At the same time, the amount owed by **Account Receivable** reduces, so this asset account is **credited**.

Figure 6.6 shows how this would be recorded in the General Journal:

Figure 6.6 General Journal: cash receipt from Account Receivable

General Journal			
Date	Details	Debit \$	Credit \$
July 16	Bank	350	
	Accounts Receivable – SE Netball League		350
	Cash received from Account Receivable –		
	SE Netball League (EFT Rec. 1635)		

Recording: General Ledger



After posting the General Journal, the General Ledger would appear as shown in Figure 6.7:

Figure 6.7 General Ledger: cash receipt from Account Receivable

General Ledger Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	15 000			
16	Account Receivable –	350			
	SE Netball League				
Account Receivable – SE Netball League (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 8	Sales / GST Clearing	660	July 16	Bank	350

In this example, the entire amount owed by SE Netball League (\$660) has not been paid, so \$310 is still owing and would be reported as a current asset in the Balance Sheet of Vixen Sportswear.

Effect on the Accounting equation

A cash receipt from an Account Receivable will thus have the following effect on the Accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	No effect (Increase Bank , decrease Account Receivable)	
Liabilities	No effect	
Owner's equity	No effect	

Although the composition of assets will change (with Bank increasing and Accounts Receivable decreasing), there is no overall change to any of the Elements of the Accounting equation. As a result, there is no further increase in owner's equity, so – by definition as well as event – there is no revenue, and therefore no profit, earned on this date.

This confirms that under the Accrual basis assumption, revenue is recognised as earned when the **credit sale** occurs, **not** when the **cash is received**.



Review questions 6.2

- 1 **Identify** the source documents that might be used to verify cash received from an Account Receivable.
- 2 **Explain** why there is no GST to account for when cash is received from an Account Receivable.
- 3 **Show** the General Journal entries to record cash received from an Account Receivable.
- 4 **State** the effect on the Accounting equation of cash received from an Account Receivable.
- 5 **Explain** how cash received from an Account Receivable is reported in the Income Statement.



6.3 Sales returns

Just as there may be a need to return inventory *to a supplier* (Account Payable) as a purchase return, there will from time to time be a need to accept inventory returned *by a customer* (Account Receivable) as a **sales return**.

The reasons for sales returns mirror the reasons for purchase returns and include:

- the inventory is faulty or damaged
- the inventory is the wrong size/colour/shape/model
- too many items of inventory were purchased
- the customer has simply changed their mind.

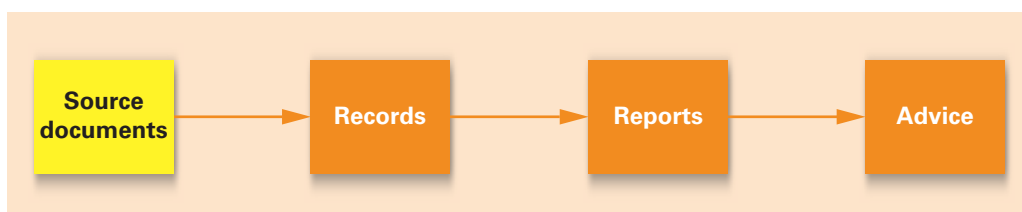
sales return

the return by a customer (Account Receivable) of inventory sold on credit

On 23 July 2030, SE Netball League returned 3 hoodies because they had purchased too many on 8 July 2030 (Cr. Note 101).

Example

Source document



As this course deals only with sales returns by Accounts Receivable, the only document to provide the evidence of a sales return will be a credit note, such as the one shown in Figure 6.8.

Figure 6.8 Credit note: sales return

 Vixen Sportswear Plenty Rd, Bundoora 3083 ABN: 20 114 653 989		23 July 2030	
Returned by: SE Netball League ABN 98764 885 101		TAX INVOICE Credit Note 101 (Duplicate)	
Qty	Item	Unit price \$	Total cost \$
3	Hoodies – Swifts Netball Club	60.00	180.00
	GST (10%)		18.00
	Total		198.00
Reason:	Customer bought too many on 8 July 2030		
Please note: this amount of \$198 will be credited to your account.			

Study tip

Although returns may be made for cash, this course concentrates only on sales returns by Accounts Receivable (of inventory sold on credit).

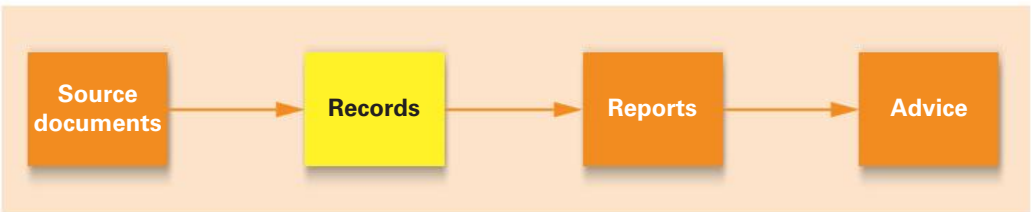


Video 6.2

Recording a sales return in the General Journal

Note how similar a credit note is in appearance to an invoice and, just like an invoice, the name of the seller is identified at the top of the document. In the case of a return, the seller is also the business that is receiving the inventory as a return. In this example, Vixen Sportswear is noted at the top, so it is receiving the inventory that has been returned by SE Netball League and would record this as a sales return. (In the accounts of SE Netball League, this would be recorded as a purchase return.)

Recording: General Journal



Just as a purchase return is the reverse of a credit purchase, so too is a sales return the reverse of a credit sale – with one twist!

The original credit sale was recorded as a credit to the Sales revenue account, so a sales return requires the opposite. However, rather than simply debit the Sales revenue account, a separate ledger account is used to record **Sales returns**. This account is a *negative revenue account* and is **debited \$180** to record the reduction in revenue.

GST Clearing is also **debited by \$18** to reduce the GST liability owed to the ATO. Because the inventory has been returned, this is GST that Vixen Sportswear will never receive, and therefore now does not owe to the ATO.

Reversing the sale also means that the debt owed by the Account Receivable is reduced. This is achieved by **crediting** the **Accounts Receivable – SE Netball League** account by **\$198**, as the customer no longer owes the \$180 charged for the sale or the \$18 of GST on that sale.

Finally, as the goods are being returned to the business, **Inventory** must be **debited** to show the increase in this asset, with **Cost of Sales credited** by the same amount to show the reduction in this expense. The inventory in this return comes from the sale on 8 July 2030, which had a cost price of \$400 for 10 items, or \$40 each, so these 3 items have a cost price of **\$120** (3 hoodies × \$40 per item).

Study tip

A credit note for a sales return is not 'store cash' but simply evidence of a reduction in the balance owed from the Account Receivable.

Study tip

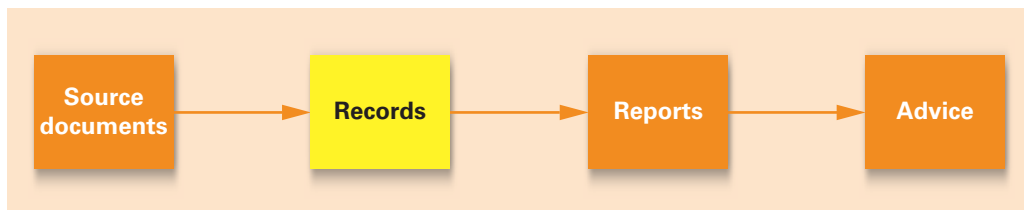
GST on a sales return reduces the GST liability caused by a credit sale.

Figure 6.9 General Journal: sales return

General Journal			
Date	Details	Debit \$	Credit \$
July 23	Sales returns	180	
	GST Clearing	18	
	Account Receivable – SE Netball League		198
	Inventory	120	
	Cost of Sales		120
	Sales return by SE Netball League of 3 hoodies – customer bought too many on 8 July 2030 (Cr. Note 101)		

In the case of a return, the narration must identify not only the source document (Cr. Note 101) but also the type and quantity of inventory being returned and the reason for the return.

Recording: General Ledger



After posting the General Journal, the General Ledger would appear as shown in Figure 6.10.

Figure 6.10 General Ledger: sales return

General Ledger					
Account Receivable – SE Netball League (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 8	Sales / GST Clearing	660	July 16	Bank	350
			23	Sales returns / GST Clearing	198
Sales (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 8	Account Receivable – SE Netball League	600
Sales returns (-R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 23	Account Receivable – SE Netball League	180			
GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 23	Account Receivable – SE Netball League	18	July 1	Balance	2 000
			8	Account Receivable – SE Netball League	60
Cost of Sales (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 8	Inventory	400	July 23	Inventory	120
Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	28 000	July 8	Cost of Sales	400
23	Cost of Sales	120			

The two cross-references in the Account Receivable account reflect the fact that the **\$198** decrease is a result of the both the sales return (**\$180**) and the GST on that return (**\$18**).

Effect on the Accounting equation

Because a sales return is almost the opposite of a credit sale, its effect on the Accounting equation is also the opposite:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Decrease Accounts Receivable \$198 , increase Inventory \$120)	78
Liabilities	Decrease (GST Clearing)	18
Owner's equity	Decrease (Sales returns \$180 less decrease Cost of Sales \$120)	60

A credit sale leads to an increase in profit, so a sales return leads to a decrease in that profit.

If the GST Clearing account has a debit balance, and is therefore an asset, then a sales return will increase that asset. This will change the overall effect on the Accounting equation: assets and owner's equity will both decrease by the amount of profit 'lost'. (This, of course, also changes if Bank is an overdraft).

Reporting sales returns

Sales returns can be an important indicator of the quality and suitability of the inventory that is being sold, but in order to investigate the cause/s, the owner must first know the level of sales returns in a given Period. Recording Sales returns in its own separate ledger account allows this information to be reported separately in the Income Statement and thus assessed and managed by the owner (see Chapter 10 for more information).

Of course, the owner should not rely solely on the Income Statement for information about the suitability of inventory. Inventory movements should be assessed regularly by consulting with staff and customers and by examining the inventory cards (which are covered in detail in Chapters 8 and 9).

Financial, legal and ethical considerations

Sales generate profit, but sales returns reduce that profit, so there is a strong incentive for a business to keep its sales returns to a minimum. The first and most effective way of doing this is to sell good quality products, which will perform their intended function, and to provide accurate information to customers (via good signage and well trained and knowledgeable staff) so that they are satisfied with what they have purchased.

However, even with the best products and customer service, there will still be occasions when sales returns eventuate. Damaged or faulty inventory must be accepted for return, provided the customer has the source document (such as the sales invoice) as proof of purchase and the business is satisfied the fault lies with the product rather than with how it was used. Owners should obtain advice regarding their legal obligations in this area, but in most cases where the product is not 'fit for the purpose intended' the business has a legal obligation to accept the return.

Accepting returns from customers who have purchased the wrong items, or too many items, or simply changed their minds is up to each business. For some businesses – and some products – it may be inappropriate to accept returns (cut material and, perhaps, underwear may fall into this category). However, businesses that do accept returns may actually generate greater sales, with customers more willing to buy if they know they can return the product if it turns out to be unsuitable.

The decision to accept sales returns in these cases depends on the business, the product/s and the situation, with a consideration of the potential 'Cost v Benefits' often being helpful:

- **Option 1: accepting the return**

Costs: reduction in profit, extra inventory management costs (e.g. repackaging), inability to re-sell (at current price)

Benefits: higher goodwill (from current and future customers), higher future sales

- **Option 2: not accepting the return**

Costs: lower goodwill (from current and future customers), lower future sales, costs of dealing with an ongoing complaint, possible legal consequences

Benefits: retention of profit, no extra inventory management costs

Ethical considerations

Sales returns and purchase returns

In cases where damaged or faulty inventory is returned by a customer, the business may decide to return those items to its supplier by way of a purchase return. However, as it may be possible to repair the inventory and prepare it for resale, it should not be assumed that all sales returns will result in a purchase return. A purchase return must still be verified by its own credit note before it can be recorded in the accounts.



Review questions 6.3

- 1 **Define** the term 'sales return'.
- 2 **State** four reasons why inventory may be returned by a customer.
- 3 **Identify** the source document used to verify a sales return.
- 4 **Explain** how a credit note can be used to distinguish between a purchase return and a sales return.
- 5 **Show** the General Journal entries to record a sales return.
- 6 **Explain** how the cost price of a sales return is determined.
- 7 **Explain** the effect of a sales return on the GST liability to the ATO.
- 8 **State** the effect of a sales return on the Accounting equation.
- 9 **Explain** why a sales return is reported separately in the Income Statement.
- 10 **Explain** the circumstances in which a business:
 - *must* accept a sales return
 - *might* accept a sales return.



6.4 Discount expense

discount expense

an expense in the form of a decrease in assets (Accounts Receivable) and owner's equity, incurred when cash is received early from Accounts Receivable and a settlement discount is allowed

Businesses that pay their Accounts Payable early might be entitled to receive a settlement discount, with this discount revenue reducing the total amount that they are required to pay, and also increasing their profit.

By the same token, businesses that sell on credit may offer their own customers a discount for paying early, but for the business offering the discount it would actually be a **discount expense**, as it would decrease their assets (Accounts Receivable) and owner's equity by the amount *not* received from the Account Receivable (but still deducted from their balance).

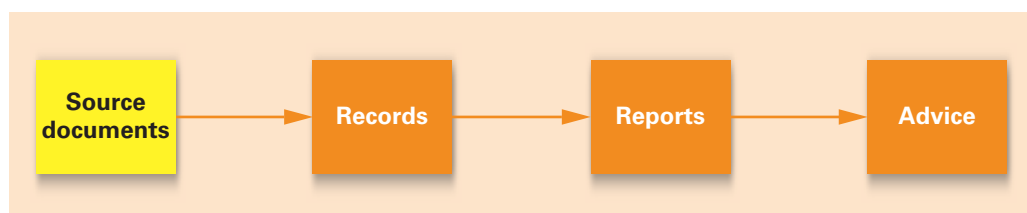
Note that this is not a 'sales discount' that reduces the selling price charged to the customer at the time of sale, such as 'Everything must go – 50% off marked prices!' Rather, it is a 'settlement discount' offered to encourage early payment from customers (Accounts Receivable) to whom sales have already been made.

Example

Harrison Starr Bicycles sells bikes and other cycling gear. During January 2030, the following transactions occurred:

- Jan. 2 Sold inventory on credit to R. George for \$2 860 including GST (Inv. 621) on terms of **5/10, n/30**
- 5 R. George returned some items worth \$200 plus GST (Cr. Note 39)
- 11 **Received cash** from R. George for **balance of account** (Rec. 134)

Source document



The source document for a receipt from an Account Receivable will be the same with or without a discount (i.e. a receipt – manual or EFT), but it must identify that it is in fact from an Account Receivable. This transaction also specifies that the receipt covers the **balance of account**, meaning it settles any and all amounts owing.

Calculating the discount

To determine the discount, if any, it is necessary to check the date of the receipt against the date of and terms on any invoices. In this case, a discount is applied if the cash is received from the Account Receivable **within 10 days**, so the cash received on 11 January 2030 will entitle the customer to a **5% discount** on whatever is still owing.

On 11 January 2030 – before the cash is received – the account of Account Receivable – R. George would appear as shown in Figure 6.11:

Study tip

In credit terms, the second and fourth numbers refer to the number of days.

Figure 6.11 General Ledger: calculating discount

General Ledger Account Receivable – R. George (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 2	Sales / GST Clearing	2 860	Jan. 5	Sales returns / GST Clearing	220
	2 640				

This **\$2 640 balance** still owing will be the amount 'settled' on 11 January 2030, and the amount on which the discount expense will be calculated as is shown in Figure 6.12:

Study tip

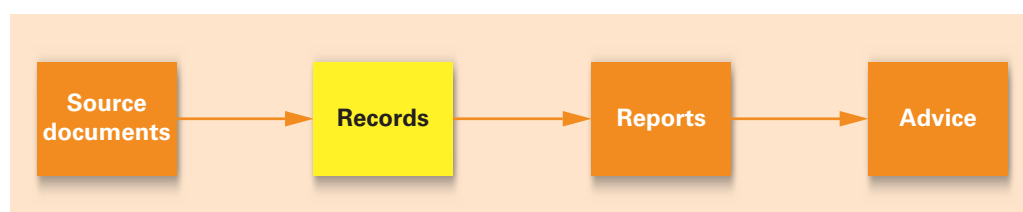
GST can be adjusted so that businesses do not have to absorb the GST they do not collect, but this is beyond the scope of this course.

Figure 6.12 Calculation: discount expense

$$\begin{aligned}
 \text{Discount expense} &= \text{Discount rate} \times \text{Amount owing} \\
 &= 5\% \times \$2\,640 \\
 &= \$132
 \end{aligned}$$

This discount of **\$132** is the amount that R. George will **not** have to pay (but will still be deducted from its Accounts Receivable account), meaning **\$2 508** (\$2 640 owing less \$132 discount) will be **received in cash**.

Recording: General Journal



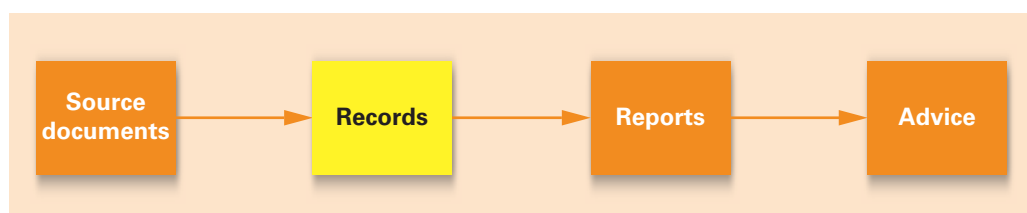
On 11 January 2030, **\$2 508** is **received** as cash, so this amount is recorded as a **debit** to the **Bank** account. At the same time, Harrison Starr Bicycles has incurred an expense of **\$132**, so this amount must be **debited** to **Discount expense**. However, the balance of the Account Receivable will decrease by **both** amounts (the **\$2 508** received plus the **\$132** discount), so it is this total of **\$2 640** that must be recorded as a **credit** to **Account Receivable – R. George**.

This would be recorded in the General Journal as shown in Figure 6.13:

Figure 6.13 General Journal: cash receipt from Account Receivable with discount

General Journal			
Date	Details	Debit \$	Credit \$
Jan. 11	Bank	2 508	
	Discount expense	132	
	Account Receivable – R. George		2 640
	Cash received from R. George with 5% discount for early payment (Rec. 134)		

Recording: General Ledger



After posting the General Journal, the General Ledger would appear as shown in Figure 6.14:

Figure 6.14 General Ledger: cash receipt from Account Receivable with discount

General Ledger Account Receivable – R. George (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 2	Sales / GST Clearing	2 860	Jan. 5	Sales returns / GST Clearing	220
			11	Bank / Discount expense	2 640

Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1	Balance	6 000			
11	Account Receivable – R. George	2 508			

Discount expense (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 11	Account Receivable – R. George	132			

Note that as a result of this payment, the balance of the Account Receivable – R. George has been reduced by \$2 640 (to zero) due to the \$2 508 that has been received in cash and \$132 discount expense. The cross-reference in Account Receivable – R. George acknowledges this by identifying both Bank and Discount expense as the other accounts affected.

However, there is no connection between the Bank and Discount expense accounts as, by definition, the discount is the amount that has **not** been received.

Effect on the Accounting equation

A cash receipt from an Account Receivable where discount expense is involved will thus have the following effect on the Accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Increase Bank \$2 508 , decrease Accounts Receivable \$2 640)	132
Liabilities	No effect	
Owner's equity	Decrease (Discount expense decreases Net Profit)	132

Costs and benefits

Offering discounts to Accounts Receivable can be an effective way to generate faster cash inflows, but it does also come with costs.

Benefits

- *Cash is received faster from Accounts Receivable*, making it available for use to make other payments (and take advantage of any discounts offered by Accounts Payable).
- *Sales may increase* as customers may be more willing to buy from a business that offers discounts.
- *Bad debts may decrease* as customers pay early rather than leave debts unpaid for long periods of time.

Costs

- *Less cash is received from Accounts Receivable* because the discount reduces the amount the Account Receivable has to pay.
- *Net Profit is decreased*, as the discount incurred is an expense.

Study tip

A settlement discount does **not** reduce revenue as revenue is already earned at the point of sale: it increases expenses and reduces profit when the cash is received.



Review questions 6.4

- 1 **Define** the term 'discount expense'.
- 2 **Explain** why discounts given to Accounts Receivable are classified as expenses.
- 3 **Explain** what is meant by the notation '5/7, n/30'.
- 4 **Show** the General Journal entries to record a receipt from an Account Receivable with a discount.
- 5 **Explain** the effect of a receipt from an Account Receivable with a discount on the Accounting equation.
- 6 **List** the benefits and costs of offering settlement discounts to Accounts Receivable.





6.5 Statement of Account

A Statement of Account provided by a supplier can be used to check the General Ledger account for a particular Account Payable.

In the case of Accounts Receivable, the Statement of Account is prepared by the business itself on the basis of the information contained in its own General Ledger, so there should already be agreement. However, the process of sending a Statement can be a prompt for payment of outstanding amounts, and also invites each Account Receivable to check their own records and notify the business about any discrepancies, providing its own form of *Verifiability* and *Faithful representation*.

Figure 6.15 shows the Statement of Account provided to R. George by Harrison Starr Bicycles:

Figure 6.15 Statement of Account

		Harrison Starr Bicycles Penny Lane, Tyabb VIC 3193 ABN: 63 252 001 498 STATEMENT OF ACCOUNT For period: March 2030		
Account of: R. George 9 Liverpool St, Ringwood VIC 3134 ABN: 60 402 462 317				
Date	Details	DR	CR	Balance
Mar. 1	Balance			200
3	Payment received: thank you (EFT Rec. 319)		200	nil
6	Goods as per invoice (Inv. 678)	1 485		1 485
10	Goods returned (Cr. Note 51)		385	1 100
15	Payment received: thank you (Rec. 156) Discount allowed		1 045 55	nil
29	Goods as per invoice (Inv. 701)	1 320		1 320
Balance owing: 31 March 2030				\$ 1 320

Assuming all the transactions matched and were recorded accurately, Figure 6.16 shows how Account Receivable – R. George would appear in the General Ledger of Harrison Starr Bicycles:

Figure 6.16 General Ledger: Account Receivable

General Ledger Account Receivable – R. George (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Mar. 1	Balance	200	Mar. 3	Bank	200
6	Sales / GST Clearing	1 485	10	Sales returns / GST Clearing	385
29	Sales / GST Clearing	1 320	15	Bank / Discount expense	1 100
			31	Balance	1 320
		3 005			3 005
Apr. 1	Balance	1 320			

The details as recorded in the Statement of Account are not the same as those used in the account because cross-references in the General Ledger must refer to account names, whereas the Statement is more *Understandable* if it uses more straightforward descriptions. However, the transactions are the same and result in the same balance of \$1 320 owed by the Account Receivable – R. George.



Review questions 6.5

- 1 **Explain** how a Statement of Account provided to an Account Receivable can be used to ensure *Faithful representation* in the reports of the supplier.
- 2 **Explain** why the cross-references in an Account Receivable account may not match the details provided in the Statement of Account.



6.6 The GST Clearing account

At this point it is probably worth revisiting what the GST Clearing account may look like, including, as it now does, the effects of transactions that include:

- GST on cash sales
- GST on credit sales
- GST on sales returns
- GST on cash purchases
- GST on credit purchases
- GST on purchase returns
- GST settlements and refunds.

Shepherd Guitars provided the following information relating to its transactions for February 2030:

Example

	\$
Balance of GST Clearing account as at 1 February 2030 ¹	1 200 CR
GST settlement²	1 200
GST on cash sales ³	9 000
GST on credit sales ⁴	6 000
GST on cash purchases and payments ⁵	3 600
GST on credit purchases ⁶	8 500
GST on sales returns ⁷	600
GST on purchase returns ⁸	490



Ignoring individual transactions and their dates (which have not been provided), the GST Clearing account of Shepherd Guitars for February 2030 would appear as shown in Figure 6.17:

Figure 6.17 General Ledger: GST Clearing

General Ledger GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Feb.	Bank ²	1 200	Feb. 1	Balance ¹	1 200
	Bank ⁵	3 600		Bank ³	9 000
	Accounts Payable ⁶	8 500		Accounts Receivable ⁴	6 000
	Accounts Receivable ⁷	600		Accounts Payable ⁸	490
Feb. 28	Balance	2 790			
		16 690			16 690
			Mar. 1	Balance	2 790

This account shows an opening balance on the credit side and ends with a credit balance, which is likely to be more common, as selling prices are higher than cost prices, so GST on sales is likely to be higher than GST on purchases. However, it is possible that a business could end (and start the next period) with a debit balance, particularly if purchases are greater than sales or it purchases a non-current asset.



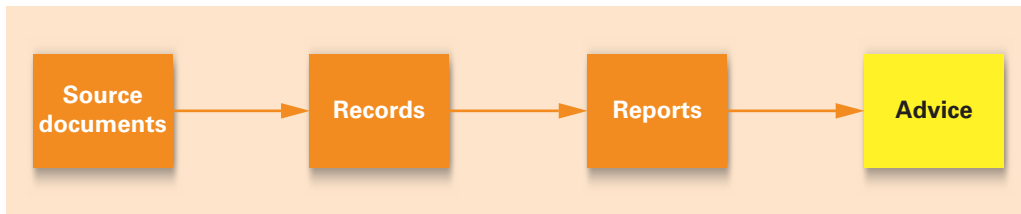
Review questions 6.6

- 1 **Identify** three types of transactions that will increase a GST liability owed to the ATO.
- 2 **Identify** four types of transactions that will decrease a GST liability owed to the ATO.
- 3 **Explain** why it is more likely that a business will have a credit balance in its GST Clearing account.
- 4 **Explain** how a business could end up with a debit balance in its GST Clearing account.





6.7 Accounts Receivable Turnover



Offering credit to customers can be an important way of generating sales, but it is not without risk that customers will either pay slowly or not at all. Without immediate access to cash, a business may have difficulties meeting its own payments as they fall due, so it needs to manage its Accounts Receivable diligently to ensure that offering credit to its customers is, on balance, good for business and, in particular, that Accounts Receivable are paying on time.

An overall assessment of the management of Accounts Receivable is facilitated by calculating the **Accounts Receivable Turnover (ARTO)**, which measures the average number of days that it takes to receive cash from Accounts Receivable, thereby indicating the effectiveness of the firm in managing its Accounts Receivable. The Accounts Receivable Turnover is calculated as shown in Figure 6.18:

Accounts Receivable Turnover (ARTO)

the average number of days it takes for a business to receive cash from its Accounts Receivable

Figure 6.18 Formula: Accounts Receivable Turnover

$$\text{Accounts Receivable Turnover (ARTO)} = \frac{\text{Average Accounts Receivable}}{\text{Net credit sales (plus GST)}} \times 365$$

$$= \text{Average number of days}$$

Like its Accounts Payable equivalent, Accounts Receivable Turnover uses the average balance of Accounts Receivable (derived by adding the starting and ending balances and dividing by 2) to accommodate for any changes in that balance over the period, and then multiplies by 365 so that the answer is expressed in terms of days. It also uses 'Net' credit sales (plus GST) to account for any sales returns, as these will reduce the amount that will be received.

Markwell Mirrors has provided the following information for 2030:

Credit sales including GST	\$462 000
Sales returns including GST	\$22 000
Accounts Receivable as at 1 January 2030	\$32 000
Accounts Receivable as at 31 December 2030	\$35 000
Credit terms offered to customers	30 days
Accounts Receivable Turnover for 2029	35 days
Accounts Payable Turnover for 2030	64 days

Example

Calculating Accounts Receivable Turnover

The Accounts Receivable Turnover for Markwell Mirrors for 2030 would be calculated as shown in Figure 6.19:

Study tip

Changes in ARTO should be described as *faster* or *slower* than: previous periods, budgeted, similar businesses or credit terms.

Figure 6.19 Calculation: Accounts Receivable Turnover

$$\begin{aligned}
 \text{Accounts Receivable Turnover (ARTO)} &= \frac{(32\,000 + 35\,000)/2}{462\,000 - 22\,000} \times 365 \\
 &= \frac{33\,500}{440\,000} \times 365 \\
 &= 28^* \text{ days (27.8 rounded up to the nearest day)}
 \end{aligned}$$

This ARTO indicates that in 2030 cash was received from Accounts Receivable, on average, every **28 days**.

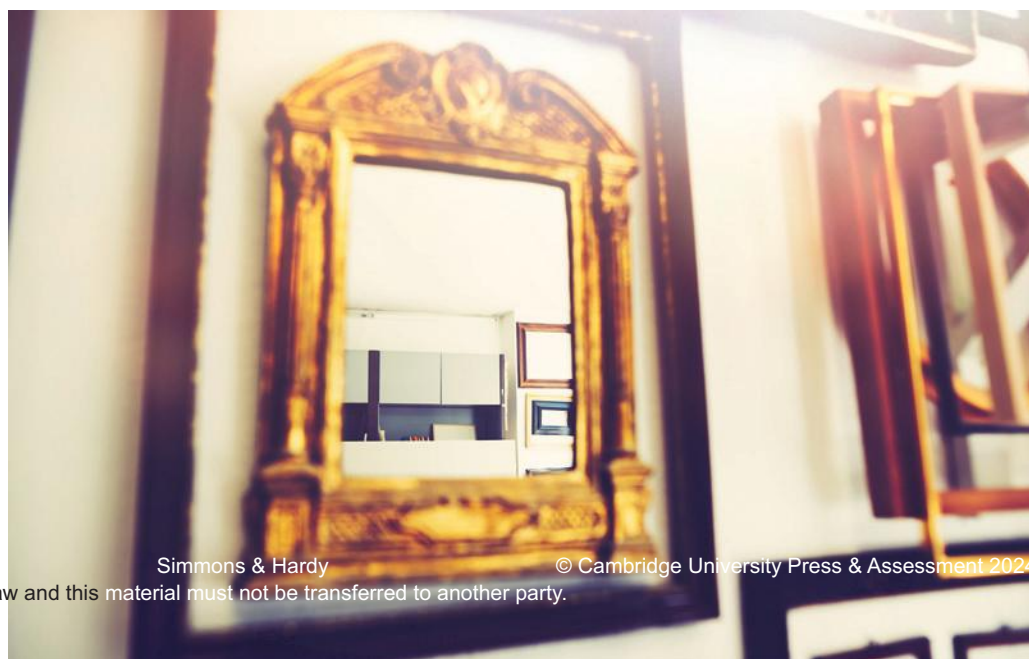
Analysing Accounts Receivable Turnover

This Accounts Receivable Turnover should be assessed against 'benchmarks' or 'standards' including:

- last year (performance in *previous periods*)
- expected (*budgeted* performance)
- its competitors (performance of *similar businesses*, sometimes reflected in an *industry average*).

This allows the owner to assess whether the business is paying its Accounts Receivable *faster or slower* than previously expected or than its competitors. But comparison against the *credit terms offered to customers* is critical to assess whether Accounts Receivable are being managed effectively to pay 'on time'.

In this example, Markwell Mirrors' Accounts Receivable Turnover of **28 days** in 2030 is actually seven days faster than the **35 days** taken in 2029, indicating an improvement in its management of Accounts Receivable. But perhaps more importantly, cash is now being received from Accounts Receivable within the **30-day credit terms offered to customers**, indicating effective management of Accounts Receivable. This satisfactory outcome may have been the result of using a number of strategies (outlined below).



By contrast, an Accounts Receivable Turnover that is *slower* than the credit terms places a strain on the firm's cash position, with a number of negative consequences possible:

- not enough cash available to meet payments, such as Accounts Payable, wages and other expenses
- an increased possibility of bad debts, as the longer a debt remains unpaid the more likely it is that it will never be paid.

Where Accounts Receivable Turnover is particularly slow and cash is not available to meet short-term debts as they fall due, Accounts Payable Turnover can suffer, with all the negative consequences this may cause, ranging from a loss of discounts to a loss of credit facilities (see Chapter 5 for more information).

Having said that, the Accounts Receivable Turnover is an average, and it is likely that some Accounts Receivable will be paying faster or slower than this figure. Therefore, it is also necessary to review the timing of receipts from each individual Account Receivable. To this end, the business may prepare an **Accounts Receivable Ageing Analysis** (sometimes known as a Debtors Ageing Analysis), which calculates how much is owing from Accounts Receivable on the basis of the 'age' of the debt.

Accounts Receivable Ageing Analysis

a listing of the amount and proportion of Accounts Receivable according to the length of time they are owing

Managing Accounts Receivable

Given the importance of receiving cash from Accounts Receivable on a timely basis, the owner may consider implementing some, or all, of the following strategies to manage its Accounts Receivable:

- **Offer discounts for quick settlement**

As noted above, this has costs and benefits, but it can encourage Accounts Receivable to pay well within the credit terms. (Note that this is a strategy to encourage early payment of debts that are not already late: discounts should not be offered on overdue debts!)

- **Send invoices promptly**

Invoices should be sent with the goods so that the customer is immediately aware of the amount owing and the repayment date. Until the invoice is received, Accounts Receivable will not begin to even think about paying.

- **Conduct extensive credit checks**

Only offering credit to customers who have a proven record of paying within the credit terms will increase the chances that cash will be received on time.

- **Send reminder notices**

Notices should be sent immediately to remind Accounts Receivable that their payment is overdue, progressing from friendly reminders to threatening legal action. Reminders may take the form of a copy of the invoice or a Statement of Account that has the outstanding amount clearly shown as overdue.

- **Threaten legal action**

The threat of court action can sometimes prompt payment, but legal action can be a long and costly process. (It also signals the end of the relationship with the Account Receivable, but perhaps Accounts Receivable who pay this late are undeserving of further credit sales!)

- **Employ a debt collection agency**

Debt collection agencies can employ practices ranging from writing letters to annoying a late payer by persistent telephone contact to embarrassment at their place of work.

- **Deny access to credit facilities**

Accounts Receivable who have not paid their current debts should be refused further credit until the amount outstanding is received.

- **Develop a strong relationship with each customer**

Strong relationships can be of great benefit in terms of encouraging Accounts Receivable to think of timely payment as supportive of a close relationship with their supplier.

- **Appoint an Accounts Receivable Officer/Clerk**

An Accounts Receivable Officer/Clerk has responsibility for record keeping (including checking the Statements of Accounts) and liaising with each Account Receivable to ensure that they pay on time.

- **Consider non-financial information**

Information that is not included in the reports could include:

- the customer's current business (or even personal) circumstances
- the significance (importance or length) of the relationship with the customer.

These factors might prompt the business to adopt a more 'flexible' approach than that afforded to most customers, especially if the customer is experiencing short-term hardship or if the business has made significant sales to a particular customer over a long period.

Ethical considerations

Acting in an ethical manner also remains essential, as it underpins the financial and personal relationships between the business and its customers, which can sustain both through difficult periods. Having said that, a strong personal relationship should not replace good financial and business relations.



Review questions 6.7

- 1 **State** what is measured by Accounts Receivable Turnover (ARTO).
- 2 **Show** the formula to calculate Accounts Receivable Turnover.
- 3 **List** three benchmarks that can be used to assess Accounts Receivable Turnover.
- 4 **Describe** the importance of 'credit terms' when assessing Accounts Receivable Turnover.
- 5 **Explain** the importance of Accounts Receivable Turnover in managing Accounts Payable Turnover.
- 6 **List**, in sequence, the strategies for effective management of Accounts Receivable.
- 7 **Explain** how ethical considerations and non-financial information can inform the management of Accounts Receivable.

Ethical considerations



Where have we been?

- Credit sales are verified by a sales invoice; cash received from Accounts Receivable is verified by a receipt (manual or EFT); sales returns are verified by a credit note issued by the business.
- GST on credit sales increases any GST liability to the ATO; GST on sales returns decreases any GST liability to the ATO.
- A settlement discount offered to customers for early payment reduces the cash received and incurs discount expense.
- Financial and ethical considerations are important when selling inventory on credit and collecting cash from Accounts Receivable.
- A Statement of Account summarises all transactions with a particular Account Receivable.
- Accounts Receivable Turnover measures the average number of days taken to collect cash from Accounts Receivable.
- Strategies to manage Accounts Receivable include offering discounts for quick settlement, sending invoices promptly, conducting extensive credit checks, sending reminder notices, threatening legal action, employing a debt collection agency, denying access to credit facilities, developing a strong relationship with each customer, appointing an Accounts Receivable Officer/Clerk and considering non-financial information.

Exercises



Exercise 6.1

Credit sale

Alex, the owner of Deco Décor, found the following document under the cash register. It has not been recorded.

 Deco Décor Block Arcade, Melbourne VIC 3000 ABN: 98 564 872 575		Invoice: 90 DUPLICATE Tax invoice Terms: 6/7, n/30		
Charge to: Country Inn, Ballarat VIC 3350				
Date	Details	Qty	Unit Price \$	Total \$
May 4 2030	Single bed sheet sets	12	60	720
	GST (10%)			72
			Total	\$792



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**Additional information:**

All sales are marked up by 100%.

Required

- Identify** the source document above and **describe** the transaction it verifies.
- Explain** what is meant by the terms '6/7, n/30'.
- Calculate** the cost price of the inventory in this transaction.
- Record** this transaction in the General Journal of Deco Décor.
- Show** how the General Ledger of Deco Décor would appear after this transaction was recorded.
- State** the effect of this transaction on the Accounting equation of Deco Décor.
- Explain** why this transaction increases the GST liability of Deco Décor.



Exercise 6.2

Credit sales

Polly Junior sells children's furniture and has provided the following list of transactions for September 2030:

- Sept. 3 Sold 2 bookcases on credit to Rydell PS for \$240 (plus \$24 GST) each (Inv. 75)
- 11 Sold 3 children's beds to Camp Somerset for \$660 (including \$60 GST) per bed (Rec. 55)
- 16 Purchased 5 desks from Pine Products for a total of \$900 (plus GST) (Inv. A310)
- 23 Sold 4 children's beds to Rydell PS for a total invoice price of \$2 640 (including GST)
- 29 Sold 1 desk to Rydell PS; the desk was purchased on 16 September 2030 (Inv. 77)

Additional information:

- Polly Junior sells all inventory at a 50% mark-up.



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Required

- State** the invoice number for the transaction on 23 September 2030.
- Record** the transactions for September 2030 in the General Journal of Polly Junior.
- Explain** how the transaction on 3 September 2030 affects the Accounting equation of Polly Junior.
- Referring to your answer to part **b**, **explain** how your recording of the transaction on 11 September 2030 differs to the other sales in September 2030.
- Show** how the General Ledger of Polly Junior would appear after recording the transactions for September 2030.
- Assuming these were the only transactions, **explain** how the GST Clearing account would be reported in the Balance Sheet of Polly Junior as at 30 September 2030.

**Exercise 6.3****Credit sales and receipts from Accounts Receivable**

Book Me Danno sells antique and rare books, and during October 2030 it had the following transactions with one of its customers, V. Deo:

- Oct. 1 Balance owed by V. Deo: \$270.
- 23 Sale of books to V. Deo for \$572 (including GST) (Inv. 152). The books had been purchased by Book Me Danno for \$350 (plus GST).
- 29 Received \$300 cash from V. Deo (EFT Rec. 302).

The following document was also found under the cash register:

Document A

	Book Me Danno	Rec. #83
	Antique and rare books Puckle St, Moonee Ponds VIC 3039	ABN: 50 303 303 303
Received from: <i>V. Deo</i>		Date: 15/10/30
The sum of: <i>Two hundred and seventy dollars</i>		
Being for: <i>Settlement of account</i>		
Signed: <i>Alex Micard</i>		Amount: \$270.00

Additional information:

- Book Me Danno offers credit terms of 7/10, n/30.

Required

- Identify** two features of Document A that indicate Book Me Danno has received cash from an Account Receivable.
- Explain** why Document A does **not** identify any GST.
- Explain** why V. Deo is **not** entitled to a discount on 15 October 2030.
- Record** the transactions in the General Journal of Book Me Danno.
- Show** how the General Ledger of Book Me Danno would appear after recording the transactions for October 2030.
- Referring to one Accounting assumption, **explain** the effect of the transaction on 15 October 2030 on the profit of Book Me Danno for October 2030.
- Explain** how a failure to record Document A would affect the *Faithful representation* and *Relevance* of the reports of Book Me Danno.



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Exercise 6.4

Sales returns

Pickwick Books is a bookshop in South Melbourne and has provided the following source document:



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 Pickwick Books		TAX INVOICE Credit note: 46 Duplicate 12 June 2030		
ABN: 09 990 656 432 1102 Clarendon St South Melbourne VIC 3205				
Returned by:	Grant Hugh 19 Cobbam Drive, Glen Waverley VIC 3150			
Item	Description	Qty	Unit Cost	\$
GD100	Children's Bible	5	50	250.00
	GST			25.00
			Total	275.00
	Reason: Items damaged in mail			

Additional information:

- Each children's bible has a cost price of \$30.
- Grant Hugh has been a loyal customer of Pickwick Books over many years.

Required

- Identify** the source document above and **describe** the transaction it verifies.
- Record** the transaction on 12 June 2030 in the General Journal of Pickwick Books.
- Show** how the General Ledger of Pickwick Books would appear after recording the information above.
- State** the effect of the transaction on 12 June 2030 on the Accounting equation of Pickwick Books.
- Explain** what action/s Pickwick Books might take now that the books have been returned.
- Referring to legal, financial and ethical considerations, **discuss** whether Pickwick Books should have accepted these books for return.

Ethical considerations





Exercise 6.5

Sales, receipts and returns

Joseph Robert Fashions has provided the following information relating to its transactions for September 2030:

- Sept. 2 Sold 3 suits to L. Christopher for \$520 (plus GST) each (Inv. 205). The suits had been purchased for \$330 (including GST) each.
- 9 Received \$1 000 cash from L. Christopher (EFT Rec. 4532).
- 15 Purchased inventory from Delmonte Suits for \$13 200 (including GST) (Inv. 40A).
- 21 L. Christopher returned one of the suits he purchased on 2 September 2030 because it was too small.
- 29 Sold 2 jumpers to L. Christopher for a total invoice price of \$176 (including GST) (Inv. 224). These jumpers had been marked up by 100%.

Additional information:

- As at 1 September 2030, the business had inventory on hand worth \$38 000, its GST Clearing account had a balance of \$300 DR and L. Christopher owed \$1 100.

Required

- Identify** the source document that would verify the transaction on 21 September 2030.
- Record** the transactions in the General Journal of Joseph Robert Fashions. Narrations are **not** required.
- Complete** the following accounts in the General Ledger of Joseph Robert Fashions after all the information for September 2030 had been recorded:
 - Account Receivable – L. Christopher
 - Inventory
 - GST Clearing.
- Explain** the effect of the transaction on 21 September 2030 on the assets of Joseph Robert Fashions.
- Explain** two strategies Joseph Robert Fashions could use to reduce its sales returns.



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Exercise 6.6

Discount expense

Milner Costumes sells costumes and other fancy dress products. The following document has not yet been recorded:



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LFC Banking	
Milner Costumes	
Funds transfer	
DATE OF RECEIPT	3 May 2030
FROM	M. Salah
	A/c: 380011 011
FOR	Settlement of account
AMOUNT	\$1034
REFERENCE	36524

Additional information:

- As at 1 May 2030, Milner Costumes had a Bank overdraft of \$600 and was owed \$1 100 by M. Salah for inventory sold on 24 April 2030.
- Milner Costumes offers credit terms of 6/10, n/30.
- The owner of Milner Costumes has claimed that discounts for early payment reduce revenue and has suggested that they be discontinued.

Required

- Explain** why M. Salah is entitled to a discount for the payment on 3 May 2030.
- Calculate** the discount expense incurred on 3 May 2030.
- Record** the transaction on 3 May 2030 in the General Journal of Milner Costumes.
- Explain** why the discount incurred on 3 May 2030 would be reported as an expense in the Income Statement of Milner Costumes.
- Show** how the General Ledger of Milner Costumes would appear after recording the transactions for May 2030.
- Referring to one Accounting assumption, **explain** why the owner's claim about discounts is incorrect.
- Discuss** whether Milner Costumes should offer discounts for early payment.

**Exercise 6.7****Accounts Receivable: cash and credit transactions**

Sports Bonanza is owned by Joe Little, and on 1 December 2030 the business had the following balances in its ledger accounts:

Inventory	\$ 14 000	
Account Receivable – Emerald CC	1 320	
GST Clearing	700	DR
Shop fittings	25 000	
Bank	500	CR
Loan – FinCo	12 000	
Capital	?	

Joe has provided the following list of transactions for December 2030:

Dec. 1	Joe Little withdrew \$500 cash for personal use	ATM Rec. 43521
3	Received GST refund from ATO	BS
5	Received full amount owing from Emerald CC (after discount)	EFT 2420
8	Purchased inventory from Apex Sports for \$11 000 (including GST)	Inv. AS2521
9	Sold clothing to St Carl's PS for \$1 300 plus GST (cost price \$800)	Inv. 904
12	Paid wages \$780	EFT 3209
13	St Carls PS returned inventory worth \$200 plus GST (cost price \$120)	Cr. Note 29
15	Purchased inventory from Sports Plus for \$4 100 (plus GST)	EFT 1602
16	Sold inventory to Emerald CC for \$825 including GST (cost price \$450)	Inv. 905
17	Paid Apex Sports in full settlement of account	EFT 1903
21	Received cash from St Carl's PS in full settlement	Rec. 35
24	Sold goods to Easting SC for \$700 plus GST (cost price \$400)	EFT 2651
27	Paid \$1 210 (including GST) for electricity	EFT 2004
31	Received \$500 cash from Emerald CC	EFT Rec. 2701

Additional information:

- Sports Bonanza offers to its customers credit terms of 10/25, n/30.
- Apex Sports offers credit terms of 7/10, n/60.

Required

- Explain** one weakness in the credit terms Sports Bonanza offers to its customers.
- Record** the transactions on 5, 9, 13, 17 and 21 December 2030 in the General Journal of Sports Bonanza. Narrations are **not** required.
- Explain** why there is no discount applicable to the transaction on 31 December 2030.
- Record** the transactions for December 2030 in the General Ledger of Sports Bonanza.
- Balance** the Bank, Inventory and GST Clearing accounts.
- Explain** how the Bank account would be reported in the Balance Sheet of Sports Bonanza as at 31 December 2030.
- Explain** the effect of the transaction on 24 December 2030 on the equities of Sports Bonanza.
- Discuss** whether the relationship between the credit terms offered by Sports Bonanza and the credit terms offered by Apex Sports will have a positive effect on the liquidity of Sports Bonanza.



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Exercise 6.8

GST Clearing account

As at 1 July 2030, the GST Clearing account of Tony's Towels had a balance of \$1 620 CR. During July 2030, the following summary of GST transactions was taken from the firm's General Journal:

	\$		\$
GST settlement	1 620	GST on cash payments	380
GST on cash sales	640	GST on sales returns	120
GST on credit sales	920	GST on purchase returns	95
GST on credit purchases	630		

Required

- Explain** why the GST settlement is recorded separately from other GST payments.
- Explain** the effect of the GST settlement on the Accounting equation of Tony's Towels.
- Show** how the GST Clearing account would appear in the General Ledger of Tony's Towels after all information was recorded. Transaction dates are **not** required.
Balance the account at 31 July 2030.
- Explain** how the GST Clearing account would be reported in the Balance Sheet of Tony's Towels as at 31 July 2030.
- Explain** why it is more likely that a business will end up with a credit balance in its GST Clearing account.



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Exercise 6.9

Accounts Payable and Accounts Receivable

Drew Curtains presented the following summary of its transactions for November 2030:

	\$	
Credit sales	44 000	including GST; cost price \$25 000
Cash sales	20 000	plus GST; cost price \$12 500
Sales returns	1 320	including GST; cost price \$750
Credit purchases of inventory	30 000	plus GST
Cash purchases of inventory	8 800	including GST
Purchase returns	750	plus GST
Expenses paid	1 500	plus GST
Cash received from Accounts Receivable	39 000	plus discount \$540
Cash paid to Accounts Payable	28 500	plus discount \$370

Additional information:

- A GST settlement was made on 1 November 2030.



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Required

- a. **Show** how the following accounts would appear in the General Ledger of Drew Curtains after recording the information above:
- Bank
 - Inventory
 - Accounts Receivable
 - Accounts Payable
 - GST Clearing
 - Cost of Sales
- Dates are **not** required.

- b. **Explain** one negative consequence of using only one General Ledger account for all Accounts Receivable.
- c. **Explain** one circumstance in which it may be appropriate for Drew Curtains to use only one General Ledger account for Accounts Payable.
- d. **Explain** one way that Drew Curtains could ensure that its Accounts Payable account provided a *Faithful representation* of the balance.



Exercise 6.10
Accounts Receivable Turnover

Ferrante Suits has provided the following information relating to its activities for 2030:

Cash sales (including GST)	\$220 000
Credit sales (including GST)	\$56 100
Sales returns (including GST)	\$1 870
Accounts Receivable as at 1 January 2030	\$6 000
Accounts Receivable as at 31 December 2030	\$8 000
Credit terms offered to customers	40 days
Accounts Receivable Turnover for 2029	38 days

Required

- a. **State** what is measured by the Accounts Receivable Turnover.
- b. **Calculate** Accounts Receivable Turnover for Ferrante Suits for 2030.
- c. Referring to your answer for part b, **explain** two reasons why the owner of Ferrante Suits should be concerned about Accounts Receivable Turnover in 2030.
- d. Referring to your answer for part b, **explain** why the Accounts Payable of Ferrante Suits may be concerned about its Accounts Receivable Turnover in 2030.
- e. **Explain** two strategies the owner of Ferrante Suits may implement in 2031 to ensure Accounts Receivable pay on time.
- f. **Explain** why Ferrante Suits' Accounts Receivable Turnover may **not** have a significant impact on its ability to meet its short-term debts.



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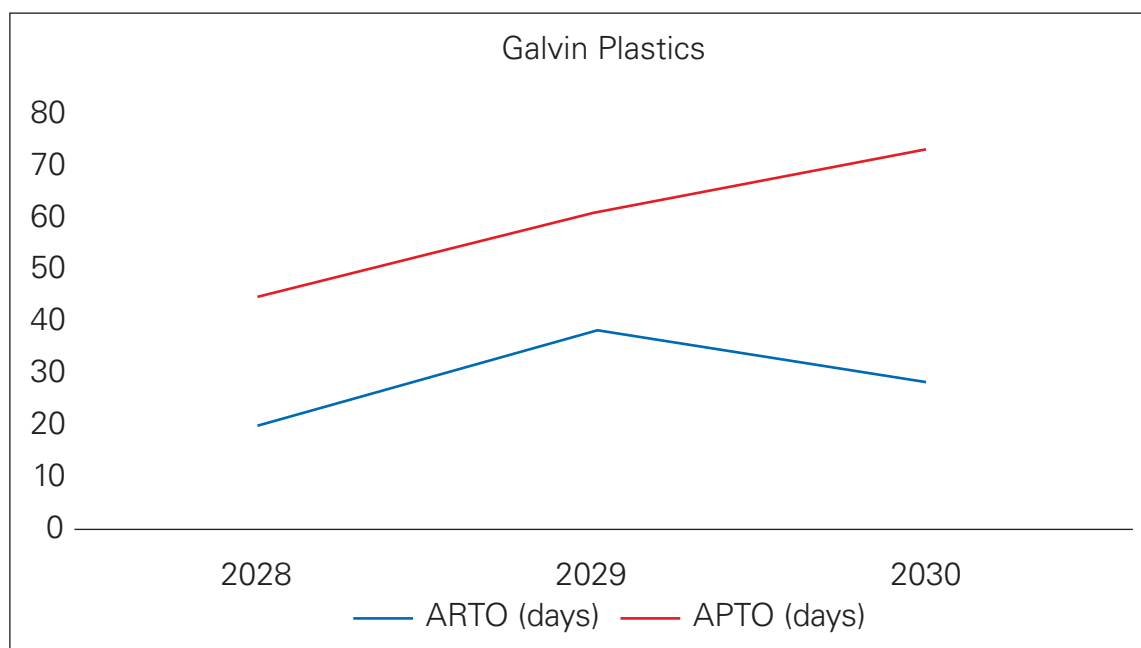
Exercise 6.11

Accounts Receivable Turnover

Galvin Plastics has provided the following information:



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Additional information:

- All sales and purchases are made on credit. Galvin Plastics offers its customers 30 days to pay while its suppliers offer Galvin Plastics 60 days.
- During 2030, the owner of Galvin Plastics stopped offering credit to customers who are more than 10 days late on their last payment. This included McGregor Mouldings, which had been a customer of Galvin Plastics for more than 10 years and usually paid 3 or 4 days late.

Required

- Explain** why the relationship between the credit terms offered by Galvin Plastics (to its customers) and to Galvin Plastics (by its suppliers) should help its liquidity.
- Suggest** two reasons why the Accounts Receivable Turnover of Galvin Plastics may have slowed in 2029.
- Explain** how the change in the Accounts Receivable Turnover of Galvin Plastics for 2029 affected its Accounts Payable Turnover for 2029.
- Explain** two reasons why the owner of Galvin Plastics should be happy with the firm's Accounts Receivable Turnover for 2030.
- Explain** why the owner of Galvin Plastics should be concerned about the firm's Accounts Payable Turnover for 2030 and **suggest** two actions it could take to manage the situation.
- Discuss** the costs and benefits of Galvin Plastics' decision to stop offering credit to customers who were more than 10 days late with their last payment.



Chapter 7

Other transactions: documents, the GST and the General Journal

Good
Serv
Tax

Learning intentions

After completing this chapter, you should be able to:

- **apply** Accounting assumptions and Qualitative characteristics
- **identify** transactions from source documents including memos
- **record** transactions from memos in the General Journal and General Ledger
- **explain** the effect of transactions on the Accounting equation
- **explain** how transactions affect the financial reports
- **apply** Accounting skills to transactions including:
 - establishment of a double-entry system
 - contributions and withdrawals by the owner
 - correction of errors
- **interpret** and **explain** the role of business documents including purchase/order forms, shipping and order confirmations and delivery dockets
- **reconcile** the information on business documents
- **discuss** ethical considerations in business decision-making.

Key terms

After completing this chapter, you should be familiar with the following terms:

- memo
- fair value
- commencing entry
- correcting entry
- order form
- order confirmation
- shipping confirmation
- delivery docket.



7.1 Memos and the General Journal

The transactions that we have recorded so far have all been related in some way to one of three major General Ledger accounts:

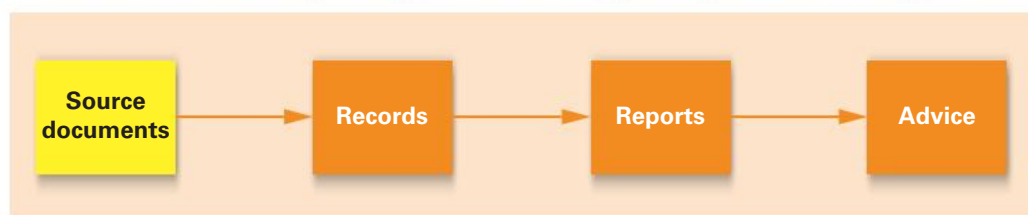
- Bank (cash receipts and cash payments)
- Accounts Payable (credit purchases, purchase returns, payments with discounts)
- Accounts Receivable (credit sales, sales returns, receipts with discounts).

This is an appropriate place to start, as buying and selling (for cash and credit), and the cash transactions that occur as a result, form the bulk of the transactions that a small business may have in any given period.

However, many other transactions are likely to occur that do not involve the receipt or payment of cash, or buying or selling inventory, and the Accounting system must be capable of verifying, recording and reporting these transactions before advice can be given.

This chapter concentrates on some of these more *infrequent* transactions, as well as some other types of business documents that can be used to provide information to support business decision-making.

Source document: Memo



memo

an internal source document used to verify a transaction that does not involve cash and is not a sale, purchase or return of inventory

Transactions that do not relate to a sale, purchase or return of inventory, or the movement of cash, are verified by an internal source document called a **memo** (short for 'memorandum').

A memo is issued to help the business communicate *with itself* and this, along with the fact that it can be issued for any number of transactions, means that the format of a memo is very basic. Put simply, it will show the date and description of the transaction, a memo number and the signature of the owner or another member of staff to authorise the information to be recorded.

Figure 7.1 shows how a memo may appear:

Figure 7.1 Memo

Date:	11 April 2030
Memo:	16
To:	Accounting department
Re:	Please note that I took one pair of football boots (Puma Kings, white, size 10½) from inventory to give to my son.
Signature: <i>R. Friminho</i>	

This memo describes a withdrawal of inventory by the owner (R. Friminho) of a pair of football boots, so would be recorded as 'Drawings'. Note that this memo does not identify an amount, leaving it to the Accounting department to determine a valuation for the inventory that has been withdrawn. As an internal document, a memo is not required to identify an amount (but many will).

However, even though it is an internal document, *Verifiability* remains important, so the document is identified by a number as Memo 16. This source document must then be identified as part of the narration in the General Journal to allow the recording to be checked for its accuracy, in turn ensuring the *Faithful representation* of the transaction (complete, free from error and neutral) in the financial reports.

Transactions verified by memo

As noted earlier, memos are used for non-cash transactions that do not relate to the sale, purchase or return of inventory, including:

- non-cash contributions by the owner
- non-cash drawings by the owner
- establishment of a double-entry system (for an existing business)
- correction of errors
- use of inventory for advertising purposes (covered in Chapter 8)
- inventory losses and gains (covered in Chapter 8)
- inventory write downs (covered in Chapter 9)
- closing entries (covered in Chapter 10)
- balance day adjustments (covered in Chapter 12 and in Unit 4).

Each of these transactions is covered in detail later in this text.

Study tip

A memo does not contain sufficient information to be used as a tax invoice, but this does not matter as a memo should not be used for transactions where GST is charged (like sales, purchases or returns).



Review questions 7.1

- 1 **Explain** the purpose of a memo.
- 2 Referring to *Verifiability* and *Faithful representation*, **explain** why the memo number must be identified in the narration in the General Journal.
- 3 **List** the transactions that would be verified by a memo.





7.2 Non-cash contributions by the owner

Study tip

AASB 13 actually defines fair value as 'the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date', but in this course it is applied only to non-current assets contributed by the owner.

fair value

the price of an asset contributed by the owner that would be received if that asset was sold at the time it was acquired by the business

Ethical considerations

Example

In chronological terms, the first time a memo is likely to be used is when the business begins and the owner contributes non-cash assets.

Because the business is assumed to be a separate Accounting entity, transactions between the business and its owner must be recorded in the firm's records as changes to the owner's capital. Chapter 4 showed how to record an initial cash contribution by the owner to commence business operations, using some form of cash receipt as the source document, and this process can be used to record a cash contribution by the owner at any time.

In the case of a contribution of a *non-cash* asset, such as a vehicle, the Accounting entity assumption has a further effect in terms of the way the asset is valued. Consider an asset, such as a vehicle, purchased by the owner but then contributed to the business. In the records of the business, this asset cannot be valued at the original price paid by *the owner* because the owner is assumed to be a separate entity.

Rather, it must be valued at what it is worth *to the business* at the time it is acquired *by the business*. However, because there is no 'sale' from the owner to the business, and there is no 'sale' document to verify its cost, the asset must be valued at its **fair value** – the price that would be received if the asset was sold at the time it was acquired by the business. In effect, this means the fair value of an asset is an estimate of its market value at the time it is contributed by the owner.

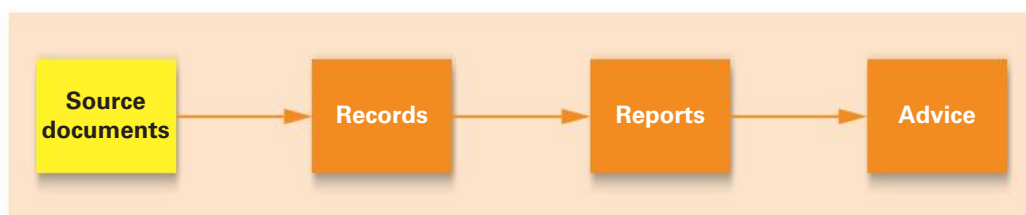
The specific dollar amount of the fair value is indeed an estimate, and therefore not *Verifiable* in the same way as other assets that have been purchased by the business, but it is nonetheless the most up-to-date valuation and thus most *Faithful representation* of the asset's value at the time it is acquired by the business.

The lack of a source document may raise questions about the ability of fair value to provide a *Faithful representation* of the asset's value. However, an ethical approach by the owner that references current market valuations of other comparable assets (of a similar age and/or in a similar condition) will help to ensure that the fair value chosen is as neutral (without bias) as possible. After all, an incomplete or inaccurate valuation will undermine the *Relevance* of the firm's reports and weaken its decision-making.

On 1 July 2030, the owner contributed to the business her own vehicle, which had been purchased in 2026 for \$28 000 (plus GST) but had a fair value of \$23 000 (Memo 31).



Source document

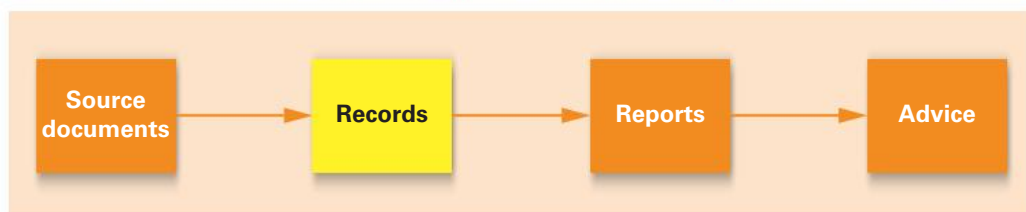


The memo – prepared by the owner – to verify this transaction might appear as shown in Figure 7.2:

Figure 7.2 Memo: contribution of a non-cash asset

Date: 1 / 7 / 2030	Memo Number: 31
To: Accounting department	
Re: Today I contributed to the business my car which I purchased in 2026 for \$28 000 plus GST. Its current fair value is \$23 000.	
Signature: <i>E. Bennett</i>	

Recording: General Journal and General Ledger



As the business has acquired a new asset, the **Vehicle** account increases via a **debit** entry while the contribution is recorded as an increase to owner's equity via a **credit** to the **Capital** account. Both entries use \$23 000 to reflect the fair value of the asset at the time of its acquisition by the business, which now becomes the historical cost of the asset as far as the business is concerned. (The \$28 000 paid by the owner is **not** recorded in the firm's records as it relates only to the owner who is a separate Accounting entity: it is not *Relevant* to the business at all.)

This would be recorded in the General Journal as shown in Figure 7.3 and posted to the General Ledger as shown in Figure 7.4:

Figure 7.3 General Journal: contribution of a non-cash asset

General Journal			
Date	Details	Debit \$	Credit \$
July 1	Vehicle	23 000	
	Capital – Bennett		23 000
	Contribution of vehicle (valued at fair value) by owner (Memo 31)		

Figure 7.4 General Ledger: contribution of a non-cash asset

Vehicle (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Capital	23 000			

Capital – Bennett (Oe)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 1	Balance	35 000
				Vehicle	23 000

Effect on the Accounting equation

A contribution of any asset, including those valued at fair value, will have the following effect on the Accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Increase (Vehicle)	23 000
Liabilities	No effect	
Owner's equity	Increase (Capital)	23 000

Note that a capital contribution by the owner increases owner's equity, but it does **not** affect profit as the definition of revenue expressly excludes contributions from the owner.



Review questions 7.2

- 1 Referring to one Accounting assumption, **explain** why transactions with the owner must be recorded in the accounts of the business.
- 2 **Define** the term 'fair value'.
- 3 **Explain** why non-cash assets contributed by the owner must be valued at fair value. In your answer refer to one Accounting assumption and one Qualitative characteristic.
- 4 **Explain** why fair value is less *Verifiable* than valuations for assets actually purchased by the business.
- 5 **Explain** how the owner can ensure that fair value provides a *Faithful representation* of an asset's value.
- 6 **Show** the General Journal entries necessary to record a capital contribution of a vehicle.
- 7 **Show** the effect of a capital contribution on the Accounting equation.



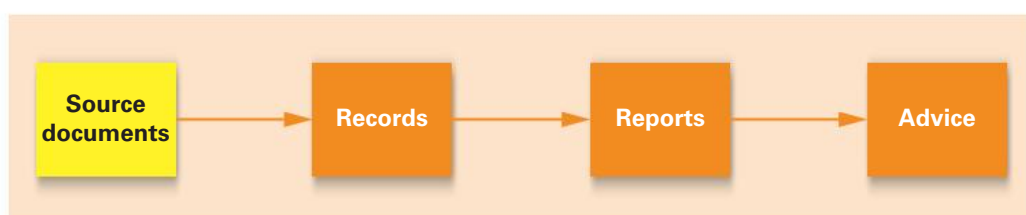
7.3 Non-cash drawings by the owner

Where the owner of a business withdraws assets from the business, this must be recorded as Drawings. Cash drawings will be verified by an EFT receipt or ATM receipt, but drawings of non-cash assets will be verified by a memo.

Example

On 16 May 2030, the owner took home an office chair worth \$120 (Memo 46).

Source document



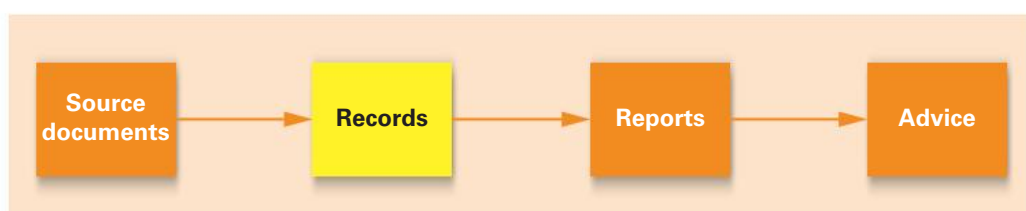
The memo – prepared by the owner – to verify this transaction might appear as shown in Figure 7.5:

Figure 7.5 Memo: drawings of a non-cash asset

Date: 16 May 2030	Memo Number: 46
Details: Please record the fact that I took home an office chair worth \$120.	
Authorised signature:	<i>Vanessa Rayner</i> V. Rayner

In general terms, the more information recorded on the memo the better: if inventory was involved, this would include the type of inventory (and perhaps inventory code) and the quantity of items involved.

Recording: General Journal and General Ledger



As noted in Chapter 3, **Drawings** represents the value of the assets the owner has withdrawn from the business, and because it is a *negative* owner's equity account it must be **debited**, in this case by **\$120**. This reduces the amount that the business 'owes to the owner'. Using a separate account to record Drawings means this figure can be reported separately in the Balance Sheet (and compared against Net Profit to assess its appropriateness). At the same time, **Office furniture** has been withdrawn, so this account is **credited** by **\$120** to record this decrease in the asset.

This would be recorded in the General Journal as shown in Figure 7.6 and posted to the General Ledger as shown in Figure 7.7:

Figure 7.6 General Journal: drawings of a non-cash asset

General Journal			
Date	Details	Debit \$	Credit \$
May 16	Drawings	120	
	Office furniture		120
	Drawings of an office chair by the owner (Memo 46)		

Study tip

The provision of more detailed information in the memo allows more detailed information to be recorded in the narration.

Figure 7.7 General Ledger: drawings of a non-cash asset

Office furniture (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
May 1	Balance	40 000	May 16	Drawings	120

Drawings (–Oe)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
May 16	Office furniture	120			

Effect on the Accounting equation

Drawings of any asset will have the following effect on the Accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Office furniture)	120
Liabilities	No effect	
Owner’s equity	Decrease (Capital)	120

Note that Drawings decreases owner’s equity, but it does **not** affect profit as the definition of an expense expressly excludes distributions to the owner.



Review questions 7.3

- 1 **Show** the General Journal entries necessary to record drawings of office furniture.
- 2 **Explain** why Drawings is recorded in a separate General Ledger account.
- 3 **Show** the effect of Drawings on the Accounting equation.



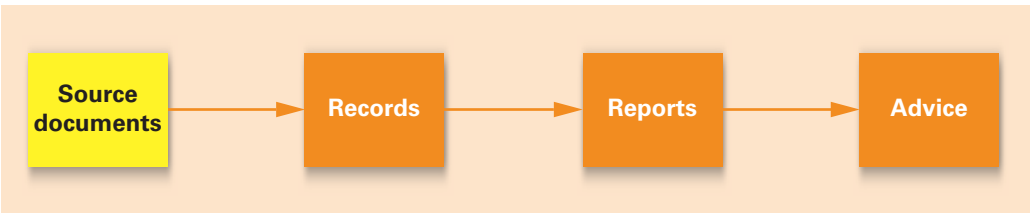
7.4 Establishing a double-entry system (for an existing business)

This course focuses on businesses that employ double-entry Accounting, utilising a General Ledger to record their transactions. However, some businesses may operate with a single-entry system (like the one explained in the Unit 1 and 2 version of this textbook series), utilising special journals to record their transactions.

When a business has been operating for some time already, and the owner decides to switch from single-entry to double-entry Accounting records, its first General Journal will be to open or establish ledger account balances for any existing asset, liability and owner’s equity items. This is known variously as an establishing, opening or **commencing entry**.

commencing entry
a General Journal entry to establish double-entry records by entering existing asset, liability and owner’s equity balances in the General Ledger accounts

Source documents

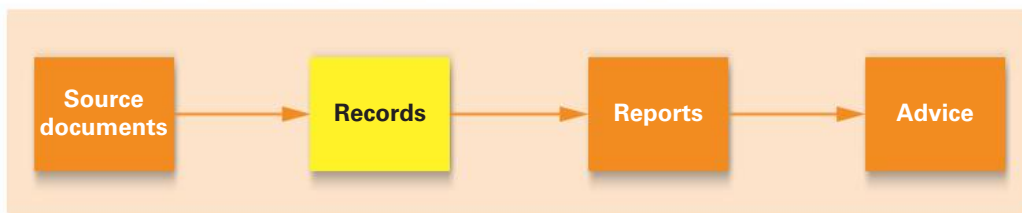


On 1 January 2030, G. Petto, the owner of Toy Bonanza, prepared the following memo to his Accountant, Pino Chio:

Example

MEMO 49			
1 January 2030			
Dear Pino			
Please set up a double-entry accounting system for us to use from here on. The firm's assets and liabilities as of today are:			
Bank	1 400	GST Clearing	300 CR
Inventory	37 000	Account Payable – Hunter Toys	21 000
Account Receivable – F. Whistle	1 320	Loan GQC Finance	15 600
Account Receivable – G. Newton	572		
Shop fittings	22 000		
Signed: <i>G. Petto</i>			

Recording: General Journal and General Ledger



The five asset accounts – Bank, Account Receivable – F. Whistle, Account Receivable – G. Newton, Inventory and Shop fittings – require a **debit** balance, while the liability accounts – GST Clearing, Account Payable – Hunter Toys and Loan GQC Finance require a **credit** balance. However, on their own, these five entries do not comprise a complete entry, because the debit entries (\$62 292) do not match the credit entries (\$36 900); a further **credit** (of \$25 392) is required. This balancing amount becomes the owner's Capital.

Figure 7.8 shows how this would be recorded in the General Journal:

Figure 7.8 General Journal: commencing entry

General Journal			
Date	Details	Debit \$	Credit \$
Jan. 1	Bank	1 400	
	Inventory	37 000	
	Account Receivable – F. Whistle	1 320	
	Account Receivable – G. Newton	572	
	Shop fittings	22 000	
	GST Clearing		300
	Account Payable – Hunter Toys		21 000
	Loan GQC Finance		15 600
	Capital – G. Petto		25 392
	Commencement of double-entry records (Memo 49)		

Study tip

Use the Accounting equation (Assets = Liabilities + Owner's equity) to calculate the Capital figure.

As noted previously, the narration provides a brief description of the transaction, which in this case is the 'Commencement of double-entry records'. It also identifies the source document that verifies the transaction: Memo 49.

This General Journal entry would be posted to the General Ledger accounts as shown in Figure 7.9:

Figure 7.9 General Ledger: commencing entry

General Ledger					
Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1	Balance	1 400			
Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1	Balance	37 000			
Account Receivable – F. Whistle (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1	Balance	1 320			
Account Receivable – G. Newton (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1	Balance	572			
Shop fittings (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1	Balance	22 000			
GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Jan. 1	Balance	300
Account Payable – Hunter Toys (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Jan. 1	Balance	21 000
Loan GQC Finance (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Jan. 1	Balance	15 600
Capital – G. Petto (Oe)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Jan. 1	Balance	25 392

As these balances are the product of many entries, there is no single account that can be named as the cross-reference, so 'Balance' can be used instead.



Review questions 7.4

- 1 Define** the term 'commencing entry'.
- 2 Explain** why a commencing entry may be necessary.
- In reference to a commencing entry, **explain** how the amount of the Capital entry is determined.
- 4 Explain** why the cross-references used in the General Ledger for a commencing entry do not identify an account name.



7.5 Correcting entries

In an Accounting system designed and run by humans, it is only natural that mistakes will occur from time to time. Where these errors are detected, the need to provide an audit trail, which allows the records to be checked and verified, means that entries cannot just be crossed out or rewritten. Instead, a **correcting entry** in the General Journal will be required to correct the error and ensure the General Ledger provides a true representation of what has occurred.

It is difficult to set rules for the correction of errors because such a wide variety of errors may need to be corrected. If a transaction has been *omitted* altogether, the error could be corrected by simply making an additional entry in the General Journal. However, in other situations it may be necessary to correct the use of the *wrong ledger account* or the use of an *incorrect amount* (or both).

In most cases, the correcting entry will need to:

- 1 *undo* the incorrect entry by reversing it; that is, record a debit entry to undo an incorrect credit, and vice versa
- 2 record the entry as it *should have* been recorded.

Most correcting entries are derived by combining these two steps as one entry.

correcting entry

a General Journal entry to correct an error in the way a transaction is recorded in the General Journal or General Ledger

On 31 July 2030, it was discovered that:

- **Drawings** of inventory worth **\$250** had been recorded as inventory used for **advertising (Memo 20)**.
- **\$440** paid for **electricity** (including GST) was incorrectly recorded as **Wages (Memo 21)**.

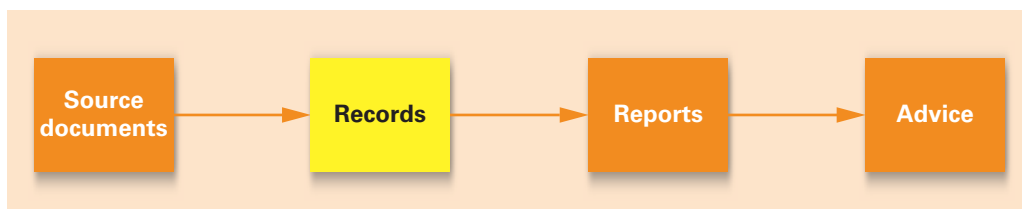
Example



Video 7.1

Recording correcting entries in the General Journal

Recording: General Journal and General Ledger



Study tip

'See, Think, Solve' may be used as a thinking routine to determine how to correct an error, starting with which ledger accounts can be 'Seen' in the description of the transaction.

In these examples, certain ledger accounts affected are identified in the information provided (i.e. these accounts can be 'Seen'), making it clear that corrections must be made to the **Drawings** and **Advertising** accounts, and also the **Electricity** and **Wages** accounts.

In the case of **Memo 20**, **Advertising** is credited to *undo* the incorrect debit to that account when the error was made, and **Drawings** is debited, as this is the correct entry that *should have* been recorded in the first place. There is no entry to change the Inventory account as the inventory was actually removed, the only difference being that it was taken home by the owner rather than being used for advertising.

In the case of **Memo 21**, **Wages** is credited \$440 to *undo* the error, and **Electricity** (\$400) and **GST Clearing** (\$40) are both debited as this is how the entry *should have* been recorded. There is no need to make a correction to the Bank account, as the credit entry to record the payment (that we 'Think' must have occurred) is correct whether the expense paid was Electricity or Wages.

Figure 7.10 shows how this would be recorded in the General Journal:

Figure 7.10 General Journal: correcting entries

General Journal			
Date	Details	Debit \$	Credit \$
July 31	Drawings	250	
	Advertising		250
	Correcting entry – drawings of inventory incorrectly recorded as advertising (Memo 20)		
July 31	Electricity	400	
	GST Clearing	40	
	Wages		440
	Correcting entry – electricity plus GST incorrectly recorded as wages (Memo 21)		

These General Journal entries would then be posted to the General Ledger as is shown in Figure 7.11:

Figure 7.11 General Ledger: correcting entries

General Ledger Drawings (–Oe)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 31	Advertising	250			

Advertising (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July	Inventory	250	July 31	Drawings	250

Electricity (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 31	Wages	400			

GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 31	Wages	40			

Wages (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 31	Bank	440	July 31	Electricity / GST Clearing	440

As a result of the correcting entries, the **Electricity** expense has **increased** as it should have originally, and the **Wages** expense has **decreased** to what it would have been had the entry not been incorrectly recorded. The same applies to **Drawings** (**increased**) and the **Advertising** expense (**decreased** to pre-error level).



Review questions 7.5

- 1 **Explain** why correcting entries are necessary.
- 2 **List** three types of errors that may need to be corrected via the General Journal.
- 3 **List** the two most common steps for correcting an error.



7.6 Other business documents

Including memos, we now have the following list of source documents to verify business transactions, many of which will satisfy the requirements of a tax invoice, meaning they can be used to substantiate GST:

Transaction	Source document/s
Cash received	Receipt: manual/EFT, ATM, credit card; Bank Statement
Cash paid	EFT payment receipt, ATM (plus tax invoice); Bank Statement
Credit sale	Sales invoice
Credit purchase	Purchase invoice
Return of inventory	Credit note
Other *	Memo

* Including non-cash transactions with the owner, commencing entries, correcting entries

As noted in Chapter 4, a Statement of Account is not evidence of a single transaction but rather a *summary* of transactions with a particular Account Payable or Account Receivable. These transactions should have been verified by individual source documents (such as invoices, credit notes, receipts) and therefore should already have been recorded.

The function of the Statement of Account then is not to facilitate *recording* per se, but *checking*, providing an extra mechanism to support *Verifiability* and ensure that the reports provide a *Faithful representation* of the firm's transactions, and these Qualitative characteristics are also supported by a number of other business documents including:

- order forms
- shipping and order confirmations
- delivery dockets.

Order forms

Sometimes called a purchase order, an **order form** is completed when a business requests inventory or other supplies/assets from a supplier. Such requests are important for ensuring a business does not run out of inventory, in the process losing sales and profit. Some Accounting systems are able to automatically and electronically send order forms to the firm's suppliers when inventory reaches a certain level.

A business needs to keep copies of its order forms so that it is aware of how much inventory has been ordered (and excess orders are not made), but the information they

order form

a document issued by a business requesting the supply of inventory or other goods

contain does not need to be recorded in the General Journal or General Ledger as an order form is simply a request for items. Goods requested may not be available or may not be delivered for some time to come so no transaction (exchange) occurs when inventory is ordered. It is only when the goods are exchanged, and the invoice is sent, that a transaction occurs. It is the *invoice*, not the order form, that must be recorded.

Example

On 3 May 2030, Snaps Photographic Equipment ordered 20 cameras (model #310) from Menolta Cameras (Order 619).

Figure 7.12 shows how the order form might appear:

Figure 7.12 Order form

 Snaps Photographic Equipment 22 Grace St, Essendon VIC 3041 ABN: 11 049 411 049	
ORDER FORM	
Supplier:	Menolta Cameras 55 High St, Armadale VIC 3143 3 May 2030
<i>Please supply the following items:</i>	
Item	Qty
Menolta camera – Model #310	20
<i>Please inform re. delivery date</i>	
Order form number	619

Note how this order form does not specify a dollar amount, as the business ordering the inventory (Snaps Photographic Equipment) is not able to set the selling price, so it cannot specify an amount on the order form. It is also unable to specify the GST or that it is a tax invoice.

Some order forms may specify a price, on the basis of prices advertised by the supplier, but this price is not valid until the supplier agrees to the sale. The actual selling price will only be specified on the purchase invoice that accompanies the goods when they are delivered, and it is *then* that the transaction can be recorded.

Order and shipping confirmation

order confirmation
a document issued by the supplier confirming the receipt of an order (for inventory)

Having received the order form, the supplier may send an **order confirmation** to notify the business that it has received the order. At this point, it may also be able to confirm that it has the inventory that was requested and the selling price for those items. Depending on the supplier, there may then be further communication between the business and the supplier to confirm the order and delivery details (including delivery costs where appropriate).

Example

On 4 May 2030, Snaps Photographic Equipment received an order confirmation from Menolta Cameras that it would be able to fill Order 619.

Figure 7.13 shows how the order confirmation might appear:

Figure 7.13 Order confirmation

 Menolta Cameras 55 High St, Armadale VIC 3143		4 May 2030	
To: Snaps Photographic Equipment 22 Grace St, Essendon VIC 3041 ABN: 11 049 411 049			
Order confirmation		Quantity	Unit Price
<i>We are pleased to confirm the availability of the items as requested:</i> Order 619: Menolta Camera (#310)		20	\$700 plus GST
<i>Please confirm delivery details by return email.</i>			

shipping confirmation

a document issued by the supplier confirming that inventory has been dispatched and is being shipped to the business

Once the purchase is finalised and the goods have been dispatched, a **shipping confirmation** may be sent by the supplier to confirm that the inventory is on its way to the business. Depending on the delivery system used by the supplier, the business may receive updates or even be able to track its inventory on a virtual map.

On 5 May 2030, Snaps Photographic Equipment received an email from Menolta Cameras confirming that the items from Order 619 had been shipped.

Example

Figure 7.14 shows how the shipping confirmation might appear:

Figure 7.14 Shipping confirmation

 Menolta Cameras 55 High St, Armadale VIC 3143		5 May 2030	
Shipping confirmation			
Your order from Menolta Cameras (#619) has been shipped (5/5/30, 3.06pm) Your tracking number is 343 5454 0091.			
Billing information:		Shipping information:	
Snaps Photographic Equipment 22 Grace St, Essendon VIC 3041 ABN: 11 049 411 049 e.larking@accounts.spe.asm		Snaps Photographic Equipment 22 Grace St, Essendon VIC 3041 Attn: Emma Larking	

The shipping confirmation specifies only that an order has been dispatched. In this case it does not even itemise the goods, instead just providing a reference to Order 619.

Even though the inventory has been shipped, at this point there is still no transaction to record, as the business:

- cannot yet recognise the inventory as an asset as the items are not yet under its *control*
- does not have the inventory, so it does not yet have a present obligation to the supplier, so there is no *liability* to recognise.

delivery docket

a document issued by the supplier to accompany a delivery, listing the type and quantity of all items delivered

Delivery docket (and invoice)

When the goods arrive at the business, they should be accompanied by a **delivery docket** that lists the items – type and quantity – that have actually been delivered. This delivery docket should be checked against the items themselves to ensure that what is listed has been received.

Example

On 6 May 2030, Snaps Photographic Equipment received a delivery of 20 cameras from Menolta Cameras, which was accompanied by delivery docket 329.

Figure 7.15 shows how the delivery docket might appear:

Figure 7.15 Delivery docket

 Menolta Cameras 55 High St, Armadale VIC 3143		Delivery docket: 329 6 May 2030		
Delivery to: Snaps Photographic Equipment, 22 Grace St, Essendon VIC 3041		Details: Re order form 619 Attn: Emma Larking		
Item code	Product description	Quantity		
		Ordered	Shipped	Back order
310	Menolta Camera	20	20	nil
Additional information: Invoice to accompany delivery. See invoice for terms. We pride ourselves on our service. For queries please call Glenn Richards.				

Following, or perhaps even accompanying, the delivery of the goods should be the purchase invoice, and the delivery docket should also be checked against the invoice to verify that the goods delivered matches the goods for which the business has been charged.

It is only at this point – when the goods have been received – that the business has *control* over a *present economic resource* and as such is able to record the inventory as an asset. At the same time, it also has a *present obligation* to pay the supplier, and so must record the Account Payable as a *liability*.

This is not an exhaustive list of business documents, but it illustrates the main documents that will be used in the VCE Accounting course to verify transactions and ensure that transactions are *Verifiable* (can be checked) and reports provide a *Faithful representation* that is complete, free from error and neutral (without bias). Other business documents (including pay advice to employees, group certificates, tax remittances and statements of superannuation contributions) will be important in the normal course of business activities, and each and every one of these documents must be collected, checked, recorded (where necessary) and filed.



Review questions 7.6

1 Explain the function of the following business documents:

- Statement of Account
- order form
- order confirmation
- shipping confirmation
- delivery docket.

2 Explain why a business does not need to record an order form in its General Ledger.

3 Explain how a delivery docket can be used to ensure that the firm's records provide a *Faithful representation* of its transactions.

4 Referring to the definitions, **explain** why inventory is only recognised as an asset once it has been delivered.



Where have we been?

- Memos are internal source documents used to verify transactions that do not involve cash and are not sales, purchases or returns of inventory such as:
 - non-cash contributions by the owner
 - non-cash drawings by the owner
 - commencing entries
 - correcting entries
 - balance day adjustments
 - closing entries.
- A narration describes each General Journal entry, including a reference to the source document.
- Other business documents include:
 - order forms
 - order confirmations
 - shipping confirmations
 - delivery dockets.
- These other documents do not need to be recorded but can assist in ensuring *Verifiability* and *Faithful representation*.

Exercises

Please note: asterisks indicate that an answer for that question is available in the Selected Answers section at the end of this book.



Exercise 7.1

Non-cash contributions by the owner

On 1 April 2030, Max contributed second-hand shelving to his business, Max's Smart Phones, with a fair value of \$12 500 (Memo 63). Max had originally paid \$15 000 for the shelving. On 30 June 2030, the resale value of the shelving was \$8 500.

Required

- Referring to the definitions of the Elements of the reports, **explain** how the shelving should be classified in the Balance Sheet of Max's Smart Phones.
- Record** the transaction on 1 April 2030 in the General Journal of Max's Smart Phones.
- Referring to your answer to part **b**, **explain** your valuation of the shelving. **Justify** your answer by referring to one Qualitative characteristic.
- Referring to your answer to part **b**, **explain** the effect of this transaction on the Accounting equation of Max's Smart Phones.
- Referring to one Accounting assumption, **explain** why the shelving should **not** be valued at its resale value in the Balance Sheet as at 30 June 2030.



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Exercise 7.2

Non-cash contributions by the owner

The owner of Wendy's Woollens sent the following memo to her bookkeeper:

Date: 12 August 2030

Memo Number: 182

To: Brenna (Accounting department)

Re: Hi Brenna

Just wanted to let you know that as of today I have given the business exclusive use of my laptop. I have determined that its fair value is \$1 100 but I bought it a year ago for \$2 000 and I think it'll make our reports look better if we use \$2 000 as our valuation.

Signature: *W. Pan*



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Required

- Explain** the role of a memo in an Accounting system.
- Explain** how the fair value of the laptop would have been determined.
- Referring to one Accounting assumption, **explain** why the laptop must be valued at \$1 100 in the records of Wendy's Woollens.
- Record** the transaction on 12 August 2030 in the General Journal of Wendy's Woollens. A narration is **not** required.

- e. **Explain** the effect on the Accounting equation of Wendy's Woollens if the laptop was incorrectly valued at \$2 000.
- f. Referring to at least two Qualitative characteristics, **discuss** Wendy's argument about the valuation of the computer.



Exercise 7.3

Non-cash drawings by the owner

Tom Matthias owns Tool Town, which on 1 September 2030 had \$45 000 worth of inventory on hand and Tom's capital was \$23 000.

Tom has provided the following memo:



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**TOOL
TOWN**

Memo: 73

DATE: 16 September 2030

FROM: Inventory Room

To: Accounting Department

\$1 000 worth of inventory was given to my son as a birthday present.
Please update the records as necessary.

Thanks,
Tom

Required

- a. **Identify** the source document above and **describe** the transaction it verifies.
- b. Referring to one Accounting assumption, **explain** why this transaction must be recorded in the records of Tool Town.
- c. **Record** Memo 73 in the General Journal of Tool Town.
- d. **Explain** the effect of Memo 73 on the Accounting equation of Tool Town.
- e. **Show** how the Owner's equity section of the Balance Sheet of Tool Town would appear as at 30 September 2030.
- f. **Explain** why Tom has an ethical responsibility to declare these drawings.

**Ethical
considerations**



Exercise 7.4

Non-cash transactions with the owner

Sybil Hilesio is the owner of Soap and Suds and as at 1 July 2030 had \$30 000 of capital in her business. Sybil let her Accountant know of two transactions that had taken place during July 2030:

- July 2 Took office furniture home for personal use \$100 (Memo 24).
- 10 Contributed to the store new shelving purchased for my home 2 years ago for \$4 400 including GST (Inv. A100) that would cost \$2 500 (plus GST) if purchased today (Memo 25).



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Required

- Record** the transactions in the General Journal of Soap and Suds.
- Referring to your answer to part **a**, **explain** your valuation of the shelving.
- Show** how the Capital and Drawings accounts would appear in the General Ledger of Soap and Suds after posting the General Journal.
- Explain** whether the transaction on 2 July 2030 should be reported as an expense in the Income Statement of Soap and Suds.
- Explain** the effect on the Accounting equation of Soap and Suds as at 31 July 2030 if Memo 25 is **not** recorded.

**Exercise 7.5****Commencing entry**

The owner of Quality Pool Sweepers has decided to convert the firm's records to a double-entry recording system and provided Memo 54, which listed the following asset and liability balances as at 1 March 2030:

Account Payable – Pool Gear	\$48 000	GST owing to ATO	\$2 700
Account Receivable – Sunset Pools	8 250	Delivery vehicles	69 000
Account Receivable – Mickel Homes	8 690	Inventory	124 000
Bank	3 400		



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*Required*

- Calculate** the owner's equity of Quality Pool Sweepers as at 1 March 2030.
- Record** Memo 54 in the General Journal of Quality Pool Sweepers.
- Referring to your answer to part **b**, **explain** your recording of GST owing to ATO.
- Explain** why there is no receipt to verify the Bank figure of \$3 400.
- Explain** why commencing entries must be recorded in the General Journal.

**Exercise 7.6****Commencing entry**

Claire's Carpets sells quality flooring and has decided to convert its records to a double-entry recording system. The following asset and liability balances were determined as at 1 May 2030:

Bank overdraft	\$2 500	GST refund due from ATO	\$1 450
Accounts Receivable:		Inventory	117 000
– RACV	4 000	Accounts Payable:	
– Borders	6 800	– NZ Pile	26 000
Mortgage	475 000	– Woolmark	31 000
Premises	500 000		



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**Additional information:**

- On 2 May 2030 Claire also decided to contribute to the business office equipment that was purchased in 2028 for \$5 000 but now has a fair value of \$3 100.
- Claire has stated that the office equipment should be valued at \$3 100 and the difference between the two valuations (\$1 900) should be reported as an expense of Claire's Carpets.
- The mortgage is repaid in instalments of \$500 per month.

Required

- Record** the information above in the General Journal of Claire's Carpets. Narrations are **not** required.
- Explain** one part of Claire's statement that is correct. **Identify** one Qualitative characteristic to support your answer.
- Explain** one part of Claire's statement that is incorrect. **Identify** two Accounting assumptions to support your answer.
- ***d. Prepare** a classified Balance Sheet for Claire's Carpets as at 2 May 2030.

**Exercise 7.7****Contribution of assets and liabilities**

On 1 July 2030, Danielle Mercer commenced business under the name of Danielle's Antiques by contributing:

- \$20 000 cash
- a van she had purchased in 2025 for \$33 000 (including GST) that had a fair value of \$13 000
- \$18 000 worth of inventory. Danielle thinks this inventory can be sold for \$46 000 (plus GST).

A loan of \$30 000 (due 31 March 2035) that had been used to purchase the van was also transferred into the business' name. As at 30 June 2030, \$27 000 was still owing.

Required

- Record** the information above in the General Journal of Danielle's Antiques. A narration is **not** required.
- Explain** why the cash and inventory contributed on 1 July 2030 will be verified by different source documents.
- Explain** why the purchase of the van does **not** reduce the GST owed to the ATO by Danielle's Antiques.
- Referring to your answer to part **a**, **explain** your valuation of the inventory. **Justify** your answer by reference to at least one Accounting assumption.
- Discuss** the use of 'fair value' to value the van.



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**Exercise 7.8****Correcting entries**

On 30 June 2030, Barry Powers discovered the following errors just prior to preparing the financial reports for his business, Powers Tools:

- Telephone charges of \$50 (plus GST) were incorrectly debited to Insurance (plus GST) (Memo 16).
- \$90 recorded as Interest expense was actually interest on Powers' home loan (Memo 17).
- A payment for Wages of \$234 was incorrectly recorded as \$432 (Memo 18).
- A receipt of \$800 from an Account Receivable – B. Billiten had been incorrectly recorded as a payment to an Account Payable – B. Bolton (Memo 19).

Required

- Show** the General Journal entries that are necessary to correct each error.
- Explain** why the entries to correct the error identified in Memo 16 would **not** affect the GST Clearing account.



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- c. Referring to your answer to part **a**, **explain** the effect on the Net Profit of Powers Tools for June 2030 of the entry to record Memo 17.
- d. **Suggest** one way the error identified in Memo 18 could have been detected.
- e. **Explain** the effect on the assets of Powers Tools if the error identified in Memo 19 had not been corrected.
- f. **Discuss** whether Barry was required to declare the error identified in Memo 17.



Exercise 7.9

Correcting entries

On 30 June 2030, the following errors were found in the General Ledger of Blue Lines:

- i Inventory that had been used for advertising (worth \$500) had been incorrectly recorded as Drawings.
- ii \$120 of equipment (plus \$12 GST) was incorrectly debited to Cleaning expenses of \$132.
- iii A payment of \$100 interest was incorrectly debited to Loan – HBM.
- iv A payment of electricity of \$605 (including GST) was incorrectly recorded in the General Journal as a payment to an Account Payable – N. Smythe for \$550.
- v A sales return of \$450 (plus GST) by B. Quick had been recorded as a purchase return to B. Quack. All sales are marked up by 50%.

Required

- a. **Show** the General Journal entries that are necessary to correct each error. Narrations are **not** required.
- b. **Explain** the effect on owner's equity of the entries to correct error **i**.
- c. **Explain** the effect on the Net Profit of Blue Lines for June 2030 of the entries to correct error **ii**.
- d. **Explain** the effect on the Accounting equation of Blue Lines if error **iii** **not** been corrected.
- e. Referring to error **iv**, **explain** the importance of a Statement of Account in ensuring *Faithful representation* in the reports.
- f. **Show** the effect on the Accounting equation of Blue Lines of the entries to correct error **v**.



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Exercise 7.10

Order form

The manager of Bev's Photo Shop sent the following document to her supplier Komak:



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 Bev's Photo Shop The Photographer's Friend Highpoint Centre, Maribrynong VIC 3168		Purchase Order: 91 29 April 2030
Supplier	KOMAK Industrial Lane, Dandenong VIC 3162	
Qty	Photographic supplies	
25	Film – Kodak 400	
10	Paper – A45 (high gloss)	
	Please deliver within 7 days	

Required

- Explain** why order forms are **not** part of the Accounting process.
- Explain** why there are no prices listed on this document.
- Referring to the definitions, **explain** why this document does **not** lead to the recognition of an asset in the records of Bev's Photo Shop.
- Name** the document that will verify the purchase of the photographic supplies when they are delivered.



Exercise 7.11

Delivery docket

Studio Suite sells indoor and outdoor furniture and received the following document:



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 Fern-iture Garden furniture and ornaments		Delivery docket: 1602 13 September 2030		
Delivery to: Studio Suite, 400 Nepean Hwy, Mt Martha 3934		Details: Re order: 006 Attn: K. Tod		
Items code	Product description	Quantity		
		Ordered	Shipped	Back order
CS32G	Café set: 2 x chairs, 1 x table (green)	5	5	Nil
CS32W	Café set: 2 x chairs, 1 x table (white)	5	4	1
Items in good condition when loaded.		Confirmed	J. Brown	
Items in good condition when packaged.		Confirmed	J. Brown	
Items shipped.		Confirmed	J. Brown	

Required

- Name** the document above and **describe** its purpose.
- State** two pieces of information that are **not** present on this document that would be necessary to record the purchase of the items listed.
- In relation to ordering inventory, **name** two other documents that may have been exchanged before this document was received.
- Identify** how many Café sets (all colours) should have been received by Studio Suite on 13 September 2030. **Justify** your answer.
- Explain** how this document can be used to ensure *Verifiability* in the records of Fern-iture.

Chapter 8

Recording and reporting for inventory



Learning intentions

After completing this chapter, you should be able to:

- **define** and **identify** inventory, and **explain** its importance to a trading firm
- **explain** the role of an inventory card and its relationship to the Inventory account
- **explain** and **apply** the Identified Cost and First In, First Out (FIFO) methods of valuing inventory
- **record** transactions in inventory cards, including:
 - purchases
 - purchase returns
 - sales
 - sales returns
 - inventory used for advertising
 - drawings of inventory
 - inventory losses
 - inventory gains
- **explain** the relationship between inventory cards and the General Journal
- **explain** the role of a physical inventory count
- **state** the reasons for an inventory loss or inventory gain
- **record** transactions in the General Journal and General Ledger including:
 - inventory losses and gains
 - inventory used for advertising
 - drawings of inventory
- **distinguish** between Cost of Sales and Cost of Goods Sold
- **prepare** an Income Statement showing Gross Profit and Adjusted Gross Profit
- **explain** the benefits of using a perpetual system to account for inventory
- **model** the effects of using different inventory valuation methods.

Key terms

After completing this chapter, you should be familiar with the following terms:

- trading firm
- inventory
- inventory card
- cost price
- Identified Cost
- inventory count
- inventory loss
- inventory gain
- First In, First Out (FIFO)
- Net Sales
- Cost of Goods Sold (COGS)
- perpetual system of inventory recording.



8.1 Trading firms and inventory

trading firm

a firm that purchases goods in order to resell them at a profit

Throughout this text we have discussed the procedures to record and report the transactions of a **trading firm** – a firm that buys inventory with the intention of reselling it for a profit.

Inventory

But what exactly do we mean by inventory? How do we distinguish assets that are considered to be inventory from those that are not?

Consider the example of a plant nursery. Among the assets under its control would be various plants, pots, garden supplies and gardening tools, as well as other items, such as shelving, a business vehicle and office equipment. Which of these should be considered to be inventory?

Any goods that are *held for resale* – purchased by a trading firm with the intention of being resold at a later date for profit – should be considered **inventory**. This might include the plants, pots, garden supplies and even gardening tools.

However, if the garden supplies and gardening tools were *held for use* within the business (to tend the plants and maintain the appearance of the nursery), they would not be considered to be inventory but would instead be treated as non-current assets (just like the shelving, vehicle and office equipment). This is not to say that these items will never be sold, but if the intention behind their purchase was use, not resale, they are not inventory.

This potential for resale – at a profit – at some time in the future means that inventory represents a present economic resource, and because the inventory is also under the control of the trading firm, it fits perfectly with the definition of an asset. Given that the firm's intention would be to resell the inventory within the next 12 months, it means that inventory is a current asset.

inventory

goods purchased by a trading firm and held for the purpose of resale at a profit

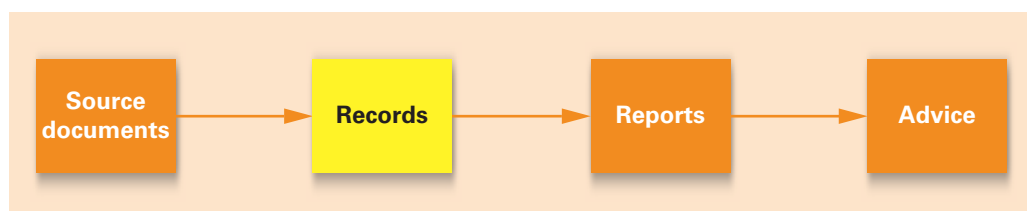
The importance of inventory

For a trading firm, inventory is of paramount importance. First, inventory is its *main source of revenue*, and thus the key to its ability to earn profit. A trading firm that cannot sell its inventory will not survive. Second, inventory is likely to be *one of the most significant assets* the firm controls. Despite the, perhaps immense, value of property and premises, it is still possible for inventory to be the largest single asset listed in the firm's Balance Sheet.

Unfortunately, inventory is not only one of the most important assets for a trading firm, but also one of the most vulnerable. Inventory is susceptible to damage, spoilage, theft and even changes in tastes and fashions, all of which can undermine its value.

Given its importance and vulnerability, it is vital that the Accounting system is able to provide accurate information about inventory.

The Inventory account



In the General Ledger, all movements of inventory are summarised in the Inventory account, with inventory coming 'in' recorded on the debit side and inventory going 'out' recorded on the credit side.

Figure 8.1 shows the typical entries in the Inventory account for a trading firm:

Figure 8.1 Inventory account

General Ledger Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 1	Balance ¹	47 000	Aug. 6	Cost of Sales ⁵	21 000
8	Bank ²	16 000	19	Cost of Sales ⁶	43 000
15	Accounts Payable ³	44 000	21	Accounts Payable ⁷	1 500
28	Cost of Sales ⁴	800	25	Advertising ⁸	600
			29	Drawings ⁹	700
			Aug. 31	Balance ¹⁰	41 000
		107 800			107 800
Sept. 1	Balance ¹⁰	41 000			

In terms of transactions and events, these entries then represent:

On the debit side	On the credit side
1. Inventory on hand at start of Period	5. Cash sales of inventory (recorded at cost price)
2. Cash purchases of inventory	6. Credit sales of inventory (recorded at cost price)
3. Credit purchases of inventory	7. Purchase returns
4. Sales returns (recorded at cost price)	8. Inventory used for advertising
	9. Drawings of inventory by the owner
	10. Inventory on hand at end (of current Period)
Total debits	Total credits
10. Inventory on hand at start (of next Period)	

With the exception of the balances, an Inventory account is likely to have more than one of each of these entries as it will purchase and sell inventory more than once each Period. However, the cross-references would be the same, meaning the account would contain a summary of all the transactions affecting the firm's inventory.



Review questions 8.1

- 1 Define** the term 'trading firm'.
- 2 Define** the term 'inventory'.
- 3 Explain** how inventory should be classified in the Balance Sheet.
- 4 State** two reasons why inventory is important to a trading firm.
- 5 State** three reasons why inventory is considered to be a vulnerable asset.
- 6 Explain** the role of the Inventory account.
- 7 Identify** three transactions that would appear on the debit side of the Inventory account.
- 8 Identify** four transactions that would appear on the credit side of the Inventory account.



8.2 Inventory cards

Although the Inventory account in the General Ledger provides an important *summary* of all movements of inventory in and out of the firm, this account alone will not provide sufficient information to manage inventory effectively. Most trading firms will carry a number of different lines of inventory: different items, different colours and different sizes. It is vital that the owner has detailed information relating to each line of inventory, from basics (such as its description, location in the warehouse and supplier) to financial information (such as the cost price of each unit, the number of units purchased and sold, and the number of units on hand at any point during the period).

This information must also be recorded, and this must be done in far more detail than the Inventory account can provide. For this reason, information relating to individual lines of inventory, including details of individual transactions, are recorded in **inventory cards**. A trading firm will only ever have one Inventory account in the General Ledger, but it could have a huge number of inventory cards, with one inventory card for every different line of inventory.

A typical inventory card is shown in Figure 8.2:

Figure 8.2 Inventory card

Inventory Card										
Inventory item: Plant pot – terracotta, 60 cm							Location: Row 16, Bay C3			
Inventory code: PTC60							Supplier: Potty 4 You			
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total

inventory card
a subsidiary Accounting record that records each individual transaction involving the movement in and out of the business of a particular line of inventory

Top portion: details of item

The top portion of the inventory card shows the details relating to the inventory line, including a description of the item (in this case, a **Plant pot – terracotta, 60 cm**). Its code (**PTC60**) is also identified for easy reference within the firm. The location (**Row 16, Bay C3**) can also be very important, particularly for inventory stored in a large warehouse with many different storage bays. Lastly, the name of the supplier (**Potty 4 You**) is identified to assist reordering.

If the firm sells plant pots in different *sizes*, each different-sized pot will need its own inventory card. In addition, if the firm sells pots in different *colours*, each of these will also require a different inventory card, with a different one for each *size* of each *colour*.

Bottom portion: transactions

The bottom portion of the inventory card is used to record the transactions and is divided into four main sections: Date and Source Document, IN column, OUT column and BALANCE column.

Date and details

The first section is used to record standard information relating to the date and details of each inventory transaction. ‘Source Document’, in this case, refers to the source document supporting *Verifiability* by allowing each transaction to be checked.

IN, OUT and BALANCE columns

These columns record exactly what they state:

- **IN** – all inventory coming in to the business, mainly through purchases (but also through sales returns from customers)
- **OUT** – all inventory leaving the business, through sales, purchase returns to suppliers, drawings or advertising
- **BALANCE** – the inventory currently on hand and available for sale.

In each of these columns further information is provided, information that is not available in the Inventory account. Whereas the Inventory account shows transactions in dollar terms only, these columns in the inventory card also record:

- the **Quantity**, or number, of items of inventory
- the **Cost** (**cost price** or original purchase price) of each individual item
- the **Total** value of each transaction (calculated as **Total = Qty × Cost**).

cost price

the original purchase price of each individual item of inventory



Review questions 8.2

- 1 **Explain** the relationship between the Inventory account and the inventory cards.
- 2 **Identify** four details that will be provided in the top portion of an inventory card but **not** in the Inventory account.
- 3 **Identify** three details that are provided when transactions are recorded in an inventory card but are **not** provided in the Inventory account.
- 4 **State** how many inventory cards a typical trading firm would require.





8.3 Recording in inventory cards

Where cost prices are constant, recording transactions in inventory cards means identifying whether inventory is coming IN to the business or going OUT of the business, and recording the Quantity, Cost and Total in the appropriate column before calculating the new BALANCE.

Purchases

Whether on cash or credit, a purchase means that inventory is coming in to the business, so it must be recorded in the IN column of the inventory card.

However, the GST is **not** recorded in the inventory card as it does not affect the economic resource (and potential to produce economic benefits) of the inventory. (Instead, GST on a purchase will decrease any GST liability.)

Example

As at 1 August 2030, Pete's Plants had on hand 4 terracotta pots (code PTC60) that had a cost price of \$60 each. On 5 August 2030, the business **purchased 8 pots** on credit from Potty 4 You for **\$60** (plus \$6 GST) each (*Inv. 364*).

These pots are recorded in the IN column as Quantity **8**, Cost **\$60**, Total **\$480** ($8 \times \$60$). The effect is to *increase* the number of items on hand in the BALANCE column to 12 pots (four on hand *plus* the **8** just purchased) at \$60, for a Total balance of \$720.

Figure 8.3 shows how this would be recorded in the inventory card:

Figure 8.3 Inventory card: purchase

Inventory Card										
Inventory item: Plant pot – terracotta, 60 cm							Location: Row 16, Bay C3			
Inventory code: PTC60							Supplier: Potty 4You			
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Aug. 1	Balance							4	60	240
5	Inv. 364	8	60	480				12	60	720

Note how the source document (*Inv. 364*) is recorded in the Source Document column to ensure the *Verifiability* of the transaction, including the cost price of the inventory items that were purchased (as charged by the supplier).

Purchase returns

A purchase return is simply the reverse of a purchase, so the inventory leaving the store to be returned to the supplier is recorded in the OUT column.

Example

On 7 August 2030, Pete's Plants **returned 2 pots** (PTC60) to Potty 4 You as they were damaged and received a credit of **\$60** (plus \$6 GST) per pot (*Cr. Note 51*).

These pots are recorded in the OUT column as Quantity **2**, Cost **\$60**, Total **\$120** ($2 \times \$60$). The effect is to *decrease* the number of items on hand in the BALANCE column to 10 pots (12 on hand less the 2 just returned) at \$60, for a Total balance of \$600.

Figure 8.4 shows how this would be recorded in the inventory card:

Figure 8.4 Inventory card: purchase return

Inventory Card										
Inventory item: Plant pot – terracotta, 60 cm						Location: Row 16, Bay C3				
Inventory code: PTC60						Supplier: Potty 4 You				
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Aug. 1	Balance							4	60	240
5	Inv. 364	8	60	480				12	60	720
7	Cr. Note 51				2	60	120	10	60	600

Once again, the source document (**Cr. Note 51**) issued by the supplier identifies the cost price of the inventory, in this case relating to the items that were returned.

Sales

Whereas a purchase meant inventory was coming in, a sale (cash or credit) means inventory is leaving the business and must be recorded in the OUT column.

On 12 August 2030, Pete's Plants **sold 3** pots (PTC60) for **\$100** (plus \$10 GST) each to Gift World (**Inv. 23**).

Example

In this case, **3** pots must be recorded in the OUT column, but what price should be recorded?

The price of the pots is given on the source document (**Inv. 23**) as **\$100**, but no **\$100** pots are listed in the inventory card. How can this be?

Remember that the price of **\$100** per pot on the source document (sales receipt or invoice) will be the **selling price**, but the inventory card shows the **cost price**, which is **\$60** each. (The cost price of the inventory is not revealed to the customer as this protects the Gross Profit on the sale; customers who are aware of the mark-up have a tendency to haggle harder for price reductions!)

The cost price is determined only when the transaction is recorded in the inventory card, so this sale is recorded as Quantity **3**, Cost **\$60** (*not \$100*), Total **\$180** ($3 \times \$60$).

The effect is to *decrease* the number of items on hand in the BALANCE column to 7 pots (10 on hand *less* the **3** just sold) at \$60, for a Total balance of \$420.

Figure 8.5 shows how this would be recorded in the Inventory card:

Figure 8.5 Inventory card: sale

Inventory Card										
Inventory item: Plant pot – terracotta, 60 cm						Location: Row 16, Bay C3				
Inventory code: PTC60						Supplier: Potty 4 You				
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Aug. 1	Balance							4	60	240
5	Inv. 364	8	60	480				12	60	720
7	Cr. Note 51				2	60	120	10	60	600
12	Inv. 23				3	60	180	7	60	420

Study tip

The cost price of a purchase or purchase return will be shown on the source document.

Study tip

The cost price of a sale will **not** be shown on the source document: it must be determined from the inventory card.

The selling price of the sale can be seen on the source document (Inv. 23) as \$300 (3 pots × \$100 plus GST per pot), but it is the inventory card that is required to calculate the cost price of the sale as \$180 (3 × \$60 per pot).

This would be recorded in the General Journal as shown in Figure 8.6:

Figure 8.6 General Journal: sale

General Journal			
Date	Details	Debit \$	Credit \$
Aug. 12	Account Receivable: Gift World	330	
	Sales		300
	GST Clearing		30
	Cost of Sales	180	
	Inventory		180
	Credit sale of 3 pots (PTC60) to Gift World (Inv. 23)		

Thus, for a sale:

- the selling price of each sale is detailed on the receipt/invoice
- the cost price of each sale must be determined in the inventory card.

This makes the inventory cards a vital source of information when sales are recorded in the General Journal. (This is not the case for purchases and purchase returns because the cost price of the inventory must always be shown on the source document provided by the supplier.)

Sales returns

As the reverse of a sale, a sales return means that inventory is returning to the business from a customer (an Account Receivable) and must be recorded in the IN column.

Example

On 18 August 2030, Gift World returned 1 of the pots it purchased on 12 August 2030 because it was not needed, and Pete's Plants issued a credit note for \$100 (plus GST) (Cr. Note 12).



As with a sale, the source document still does not identify the cost price, but it does identify the sale from which the return has come, and this allows the cost price to be determined by inspecting the inventory card on this date.

On 12 August 2030, when the sale was made, each pot was valued at \$60, so the 1 unit returned to inventory on 18 August 2030 is recorded in the IN column at a cost price of \$60, increasing the BALANCE column to 8 pots (7 on hand plus the 1 just returned) at \$60, for a Total balance of \$480.

Figure 8.7 shows how this would be recorded in the Inventory card:

Figure 8.7 Inventory card: sales return

Inventory Card										
Inventory item: Plant pot – terracotta, 60 cm						Location: Row 16, Bay C3				
Inventory code: PTC60						Supplier: Potty 4 You				
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Aug. 1	Balance							4	60	240
5	Inv. 364	8	60	480				12	60	720
7	Cr. Note 51				2	60	120	10	60	600
12	Inv. 23				3	60	180	7	60	420
18	Cr. Note 12	1	60	60				8	60	480

To record the sales return in the General Journal, the source document (**Cr. Note 12**) identifies the amounts to be debited to the Sales returns account (\$100 selling price) and **GST Clearing** (\$10) account, and credited to the **Account Receivable – Gift World (\$110)** account, but the amount to be recorded in the **Inventory** and **Cost of Sales** accounts (\$60) comes from the inventory card.

This would be recorded in the General Journal as shown in Figure 8.8:

Figure 8.8 General Journal: sales return

General Journal			
Date	Details	Debit \$	Credit \$
Aug. 18	Sales returns	100	
	GST Clearing	10	
	Account Receivable: Gift World		110
	Inventory	60	
	Cost of Sales		60
	Return of one pot (PTC60) from Gift World –		
	not needed (Cr. Note 12)		

Advertising and drawings

Drawings refers to what the owner withdraws from the business, and while it may be cash, it may also include other assets like inventory. Drawings of cash will be verified by a document like an EFT payment or ATM receipt and recorded in the Bank account, but drawings of inventory will be verified by a memo and recorded in the Inventory account and, as a result, the appropriate inventory card.

A similar approach applies to inventory taken out of the store to be used for display purposes or donated to a local community organisation (such as a school, church group or charity), who then uses the inventory as a prize in a raffle or fundraising event. In either case, the business donating the inventory can legitimately claim that the inventory has been used for the purpose of Advertising.

Where inventory is withdrawn by the owner or used for advertising purposes, this must be recorded in the OUT column of the relevant inventory card.

On 22 August 2030, Pete donated 2 pots to the local school to be used in their fundraising raffle (**Memo 18**). On 27 August 2030, Pete took home 1 pot for his own house (**Memo 19**).

Example

Both transactions would be recorded in the OUT column as is shown in Figure 8.9:

Figure 8.9 Inventory card: advertising, drawings

Inventory Card										
Inventory item: Plant pot – terracotta, 60 cm						Location: Row 16, Bay C3				
Inventory code: PTC60						Supplier: Potty 4 You				
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Aug. 1	Balance							4	60	240
5	Inv. 364	8	60	480				12	60	720
7	Cr. Note 51				2	60	120	10	60	600
12	Inv. 23				3	60	180	7	60	420
18	Cr. Note 12	1	60	60				8	60	480
22	Memo 18				2	60	120	6	60	360
27	Memo 19				1	60	60	5	60	300

As is often the case for transactions of this type, the source documents (Memo 18 and Memo 19) do not identify a dollar figure, as they are designed for communication within the business itself. Instead, the amounts of these transactions will be determined by the inventory cards so that they can be recorded in the General Journal as is shown in Figure 8.10:

Figure 8.10 General Journal: advertising, drawings

General Journal			
Date	Details	Debit \$	Credit \$
Aug. 22	Advertising	120	
	Inventory		120
	Two pots (PTC60) donated to local school fundraising as advertising (Memo 18)		
Aug. 27	Drawings	60	
	Inventory		60
	One pot (PTC60) withdrawn by owner (Memo 19)		

These entries will be added to any cash amounts paid for advertising or taken as drawings when they are posted to the accounts in the General Ledger.

Summary

Used together, the inventory cards and Inventory account (in the General Ledger) provide a rich source of information to assist decision-making, as:

- the inventory cards provide the specific information that is necessary for managing each line of inventory
- the Inventory account provides the summary information that is used in the Accounting reports.

Given that the inventory card records the cost price of each sale and sales return, the inventory card can be used to calculate the Cost of Sales – for that line of inventory – for the Period.



Review questions 8.3

- 1 **Explain** why GST does **not** affect the valuation of an inventory purchase.
- 2 **State** the effect on the balance of inventory of a transaction recorded in the:
 - IN column
 - OUT column.
- 3 **Identify** two transactions recorded in the IN column of an inventory card.
- 4 **Identify** four transactions recorded in the OUT column of an inventory card.
- 5 **Explain** why the cost price is **not** shown on the source document that provides the evidence of a sale.
- 6 **Explain** the role of inventory cards when sales and sales returns are recorded in the General Journal.
- 7 **Explain** the role of inventory cards when purchases and purchase returns are recorded in the General Journal.
- 8 **State** two reasons why a small business may use inventory for advertising purposes.
- 9 **Explain** why inventory used for advertising purposes is classified as an expense.
- 10 **Show** the General Journal entries to record inventory used for advertising purposes.



8.4 Valuing inventory: changing cost prices

Frequently, the cost price charged by the supplier will change during the Period. That is, the items on hand may have the same selling price and be identical in the eyes of the customer, but they may have different cost prices.

Purchases

When inventory is purchased at different cost prices, *both* cost prices must be recorded in the inventory card.

On 1 October 2030, Woolly Goods had on hand 8 coats (WC1-L) that it had purchased for \$100 (plus GST) each. On 2 October 2030, it purchased another 20 for \$120 plus GST each from AG Mills (Inv. XV35).

Example



As this is a purchase and will increase the inventory on hand, this transaction must be recorded in the IN column as Quantity **20**, Cost **\$120**, Total **\$2 400** ($20 \times \$120$).

There are now 28 coats on hand and the BALANCE column must reflect this, but we cannot simply aggregate the inventory as 28 units at one particular unit cost. Even though the coats are identical as far as the customers are concerned, they were purchased in different 'batches' and at different cost prices: **8** were purchased at **\$100**, and **20** were purchased at **\$120**. Therefore, they must be listed separately in the BALANCE column of the inventory card as is shown in Figure 8.11:

Study tip

Order is critical in an inventory card: always list the unit costs in the BALANCE column in the order in which the inventory entered the business.

Figure 8.11 Inventory card: purchase (changing cost prices)

Inventory Card										
Inventory item: Woollen Coat (Large) Inventory code: WC1-L						Cost method: Identified Cost Supplier: AG Mills				
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Oct. 1	Balance							8	100	800
2	Inv. XV35	20	120	2400				8	100	800
								20	120	2400

In terms of the BALANCE, the 28 coats on hand as at 2 October 2030 consist of:

- **8 coats that were already on hand** on 1 October 2030 (and remain on hand so must be rewritten as part of the new balance on 2 October 2030)
- **20 new coats** that have just been purchased.

Purchase returns

Given that the prices of purchases and purchase returns are set by the supplier, the cost price of a purchase return will be identified by the supplier on the credit note, and this is the value that should be used in the inventory card. In this example, the purchase return could be valued at **\$100** or **\$120**, or could even include some at each cost price – it depends on the valuation used by the supplier.

Sales and other 'OUT' transactions

In the case of a sale (or for that matter, drawings of inventory or inventory used for advertising purposes), the cost price is determined not from the source document but from the inventory card. Where the inventory card identifies *different* cost prices for the inventory on hand, a dilemma arises: which cost price is to be used when the inventory is sold? Put another way, what is the cost (value) of the inventory that has left the business in that transaction?

Example

On 5 October 2030, Woolly Goods sold **10** coats to V-Rail for \$250 plus GST each (Inv 132).

As far as V-Rail is concerned, it has purchased **10** identical coats for \$250 each, and in the records of Woolly Goods the Sales revenue will be simply $10 \times \$250 = \$2\,500$.

Further, the sale means that inventory is moving out of the business, so this transaction must be recorded in the OUT column, but which coats have been sold: those purchased for \$100? Or those purchased for \$120? What is the cost price of the 10 coats that have been sold?

Because of the different cost prices involved, the Accounting system must have a mechanism for valuing the inventory *at the time of the sale*, and two alternatives exist:

- 1 Identified Cost
- 2 First In, First Out (FIFO).

Each is a valid way of determining the value (cost price) of inventory as it leaves the business, but each will give a different valuation for both the Cost of Sales of inventory sold and the value of inventory on hand at the end of the Period. (This is true unless all inventory is sold, in which case both methods will produce the same valuations.)

Regardless of which method is chosen, *Comparability* – the need to be able to compare reports over time to identify similarities and differences – requires that method to be used consistently from one Period to the next. Otherwise, changes in the reports may turn out to be the result of changes in the valuation methods, rather than changes in performance.



Review questions 8.4

- 1 **Explain** how the purchase of inventory at different cost prices is reflected in the balance of an inventory card.
- 2 **Explain** how inventory is valued when a purchase return is made to a supplier.
- 3 **Explain** why it is necessary to use an inventory valuation method for sales when cost prices are changing.
- 4 **Name** the two methods used to value inventory at the time of sale.
- 5 Referring to one Qualitative characteristic, **explain** why inventory valuation methods should **not** be changed between Periods.





8.5 Valuing inventory at the time of sale: Identified Cost

Identified Cost

a method of valuing inventory by physically marking each item in some way so that its individual cost price can be identified

Example

On 5 October 2030, Woolly Goods sold **10** coats to V-Rail for **\$250** plus GST each (Inv. 132). Codes on the price tags indicated that **3** of the coats were from the **\$100** batch, and **7** were from the **\$120** batch.

Because the cost price of each coat can be *identified*, each can be recorded separately in the inventory card as is shown in Figure 8.12:

Figure 8.12 Inventory card: sale (Identified Cost)

Inventory Card										
Inventory item: Woollen Coat (Large)						Cost method: Identified Cost				
Inventory code: WC1-L						Supplier: AG Mills				
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Oct. 1	Balance							8	100	800
2	Inv. XV35	20	120	2 400				8	100	800
								20	120	2 400
5	Inv. 132				3	100	300	5	100	500
					7	120	840	13	120	1 560

Even though two different cost prices have been used, **10** coats have still been recorded in the OUT column as being sold. The remaining BALANCE then lists that 18 coats are still on hand (28 less **10** sold) but continues to identify that 5 of these (8 on hand less **3** sold) were purchased at **\$100**, and 13 (20 less **7** sold) were purchased at **\$120**.

The General Journal entry to record the sale would simply use the one figure – the total Cost of Sales of **\$1 140** (**\$300** + **\$840**) as is shown in Figure 8.13:

Figure 8.13 General Journal: credit sale (Identified Cost)

General Journal			
Date	Details	Debit \$	Credit \$
Oct. 5	Account Receivable – V-Rail	2 750	
	Sales		2 500
	GST Clearing		250
	Cost of Sales	1 140	
	Inventory		1 140
	Credit sale of 10 coats (WC1-L) to V-Rail (Inv. 132)		

Other OUT transactions: advertising and drawings

This method of identifying the cost price of inventory at the time of sale is also applied to other transactions recorded in the OUT column, such as the use of inventory for advertising or the withdrawal of inventory as drawings by the owner.

Figure 8.14 shows how this would be recorded in the inventory card:

On 8 October 2030, Woolly Goods donated to a charity raffle 4 coats, which had a cost price of \$120 (Memo 104).

On 10 October 2030, the owner of Woolly Goods took home 2 coats, which had a cost price of \$100 (Memo 109).

Example

Figure 8.14 Inventory card: advertising, drawings (Identified Cost)

Inventory Card										
Inventory item: Woollen Coat (Large)						Cost method: Identified Cost				
Inventory code: WC1-L						Supplier: AG Mills				
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Oct. 1	Balance							8	100	800
2	Inv. XV35	20	120	2 400				8	100	800
								20	120	2 400
5	Inv. 132				3	100	300	5	100	500
					7	120	840	13	120	1 560
8	Memo 104				4	120	480	5	100	500
								9	120	1 080
10	Memo 109				2	100	200	3	100	300
								9	120	1 080

Figure 8.15 shows how these transactions would be recorded in the General Journal:

Figure 8.15 General Journal: advertising, drawings (Identified Cost)

General Journal			
Date	Details	Debit \$	Credit \$
Oct. 8	Advertising	480	
	Inventory		480
	Four coats (WC1-L) donated to a charity raffle as advertising (Memo 104)		
10	Drawings	200	
	Inventory		200
	Two coats (WC1-L) withdrawn by owner (Memo 109)		

Purchase returns

Although also recorded in the OUT column, inventory returned to a supplier as a purchase return does not need to be valued using Identified Cost because its cost price is determined by that supplier and identified on the credit note they issue. (The items returned may still bear the label or code of the business returning the inventory, but it is the supplier who will determine the cost price to apply.)

Sales returns

As the reverse of a sale, a sales return means that inventory is returning to the business from a customer (an Account Receivable), and it must be recorded in the IN column. Under Identified Cost, the cost price of the items returned will be identified on the source document or inventory card.

Example

On 19 October 2030, V-Rail returned **3** of the coats they had purchased on 5 October 2030 because they were too large, and a credit of **\$250** plus GST per coat was given (Cr. Note 17). Codes on the price tags indicated that **2** of the coats had a cost price of **\$100** each, and **1** had a cost price of **\$120**.

The credit note still only identifies the **selling price** charged to the customer (**\$825** = \$250 plus \$25 GST per coat), but it also does identify the sale from which the return has come, and the codes on the price tags allow the cost prices to be identified.

Because the **\$100** coats were sold first, the **2** coats valued at this cost price are listed first in the IN column as well as the BALANCE column, followed by the **1** coat with a cost price of **\$120**. Figure 8.16 shows how this would be recorded in the inventory card:

Figure 8.16 Inventory card: sales return (Identified Cost)

Inventory Card										
Inventory item: Woollen Coat (Large)						Cost method: Identified Cost				
Inventory code: WC1-L						Supplier: AG Mills				
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Oct. 1	Balance							8	100	800
2	Inv. XV35	20	120	2 400				8	100	800
								20	120	2 400
5	Inv. 132				3	100	300	5	100	500
					7	120	840	13	120	1 560
8	Memo 104				4	120	480	5	100	500
								9	120	1 080
10	Memo 109				2	100	200	3	100	300
								9	120	1 080
19	Cr. Note 17	2	100	200				5	100	500
		1	120	120				10	120	1 200

The **cost price** of this sales return (**\$320**), which increases **Inventory**, will also decrease **Cost of Sales** and will be recorded in the General Journal as shown in Figure 8.17.

Figure 8.17 General Journal: sales return (Identified Cost)

General Journal			
Date	Details	Debit \$	Credit \$
Oct. 19	Sales returns	750	
	GST Clearing	75	
	Account Receivable – V-Rail		825
	Inventory	320	
	Cost of Sales		320
	Sales return of 3 coats (WC1-L) by V-Rail – too large (Cr. Note 17)		

Costs versus benefits

Because it requires each item of inventory to be marked or labelled, and also coded against the specific purchase price of that item, Identified Cost is both accurate and neutral, and thus provides a *Faithful representation* of the value of inventory.

However, not all businesses will use Identified Cost to value inventory because:

- **it is not always possible to mark or label individual items of inventory**
Some types of inventory just cannot be labelled, particularly if they are sold by weight or volume rather than as individual items. For instance, petrol at a service station may be bought at different cost prices but these different batches mix in the same tank and are therefore impossible to label.
- **there are administration costs in labelling individual items and recording codes and cost prices**

The cost of labelling may include stationery (like inventory tags or stickers) and even additional packaging so that the items can be labelled, but the more significant cost will be the wages of staff employed to label each individual item and record each code and cost price when the inventory is purchased.

It may also cost in terms of the time staff are not allocating to other tasks, and for small items sold in high volumes this time could be significant. For example, a hardware shop *could* label every nut and bolt, but this may not be a productive use of their time.

Through scanning, computerised recording systems can alleviate the time taken to locate the cost price *at the time of the sale*, but a business using Identified Cost would still need to label the inventory and record the codes and cost prices *at the time of purchase*.

Businesses must therefore make decisions on the costs of using Identified Cost weighed against its benefits, and in some cases may decide it is just not worth the time or the money.



Review questions 8.5

- 1 **Explain** how the Identified Cost method values inventory at the time of sale.
- 2 **Identify** two transactions other than sales for which the Identified Cost method may be used to value inventory.
- 3 **Explain** how inventory is valued when it is returned to a supplier as a purchase return.
- 4 **Explain** how inventory is valued when a customer makes a sales return.
- 5 **Explain** how the Identified Cost method of valuing inventory ensures *Faithful representation* in the reports.
- 6 **List** the costs of using the Identified Cost method of inventory valuation.



8.6 Inventory losses and gains: Identified Cost

Because the inventory cards are updated after every transaction, they provide a continuous (or perpetual) record of inventory on hand. That is, at any stage, the number of units shown in the BALANCE column should reflect the quantity of inventory on hand in the shop, showroom or warehouse.

Inventory count

inventory count

a physical count of the number of units of each line of inventory on hand

Study tip

If the inventory count and inventory cards differ, then assume the inventory count is correct.

inventory loss

an expense incurred when the inventory count shows a figure for inventory on hand that is less than the balance shown in the inventory card

However, just because the inventory card says there *should* be a certain number of items on hand does not mean this *will* be the case. To be sure, the number of units on hand should be checked periodically by conducting an **inventory count**, which involves a physical count of the number of units of each line of inventory on hand. This count can then be compared against the balances in the inventory cards to check their accuracy and can detect any inventory losses or gains, thereby ensuring that the reports provide a *Faithful representation* of the firm's inventory on hand.

Although the inventory count can be done at any time, it is a time-consuming and costly process. As a consequence, a full inventory count is likely to be done only infrequently. At the very least, this would be at the end of the Period, just before the reports are prepared.

Inventory losses

Whenever the number of units counted by the inventory count is *less* than the quantity shown in the balance of the inventory card, an **inventory loss** has occurred. This may be for a variety of reasons, including:

- theft
- damage/breakages
- undersupply from a supplier, where a supplier has delivered less inventory than has been charged for
- oversupply to a customer, where inventory has been supplied to customers in excess of what they have been charged for.

The fact that inventory losses can occur through undersupply from a supplier or oversupply to a customer makes the process of checking the invoice against the delivery docket even more important, as any errors detected at this point can be rectified before a loss occurs.



Recording an Inventory loss

An inventory loss means that there is less inventory available for sale than is currently shown in the inventory card and Inventory account, so the quantity missing (or lost) must be recorded in the OUT column of the inventory card.

On 31 July 2030 the inventory records of Demon Sports included an **inventory card** for Princess tennis racquets that showed that the business had on hand **5 racquets** with a cost price of **\$60 each** and **7 racquets** with a cost price of **\$65 each**. An inventory count on the same day showed **4 racquets** with a cost price of **\$60 each** and **5 racquets** with a cost price of **\$65 each** (Memo 72).

Example

Study tip

Under the Identified cost method, the cost price of any inventory 'lost' will be identified.

Comparing the two sets of data reveals an **inventory loss** of **1 racquet** with a cost price of **\$60 each** (5 according to the **inventory card** versus 4 according to the **inventory count**) and **2 racquets** with a cost price of **\$65 each** (7 according to the **inventory card** versus 5 according to the **inventory count**).

This inventory loss of **3 tennis racquets** would be recorded in the OUT column of the inventory card, as shown in Figure 8.18:

Figure 8.18 Inventory card: inventory loss (Identified Cost)

Inventory Card										
Inventory item: Tennis racquet – Princess 500					Cost method: Identified Cost					
Inventory code: P500					Supplier: Princess Racquets					
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
July 31	Balance							5	60	300
								7	65	455
31	Memo 72				1	60	60	4	60	240
					2	65	130	5	65	325

Following the recording of the **Inventory loss (\$190)**, the new BALANCE in the inventory card – **4 racquets** with a cost price of **\$60 each** and **5 racquets** with a cost price of **\$65 each** – is now the same as the **inventory count** and totals **\$565**.

Inventory loss is an expense as it is a decrease in assets (Inventory) that results in a decrease in owner's equity (but is not drawings). Therefore, in the General Journal and General Ledger the **Inventory loss** account must be **debited** to record the expense incurred, and the **Inventory** account must be **credited** to show the decrease in the asset. Figure 8.19 shows how this would be recorded in the General Journal:

Figure 8.19 General Journal: inventory loss (Identified Cost)

General Journal			
Date	Details	Debit \$	Credit \$
July 31	Inventory loss	190	
	Inventory		190
	Inventory loss of 3 Princess tennis racquets (P500)		
	revealed by inventory count (Memo 72)		

The narration here is quite detailed, identifying the specific inventory line involved (in this case, also using the product code – P500) and the quantity of items lost (3). In the case of recording inventory losses for a number of different lines of inventory, this level of detail would be impossible to include. Consequently, it is the source document (Memo 72) that is most important to include in the narration, as it would contain all the necessary details recorded in the inventory cards.

Effect on the Accounting equation

Assuming the business used Identified Cost, the effect of an Inventory loss on the Accounting equation would be:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Inventory)	190
Liabilities	No effect	
Owner's equity	Decrease (Inventory loss expense decreases Net Profit)	190

An inventory loss decreases both assets (Inventory) and owner's equity (through Inventory loss expense decreasing Net Profit).

Inventory gains

When the number of units counted by the inventory count is *more* than the quantity shown in the balance of the inventory card, an **inventory gain** has occurred. This may be due to:

- oversupply from a supplier, where a supplier delivered inventory for which the business has not been charged
- undersupply to a customer, where a customer has been charged for inventory that has not been delivered (and the customer has not realised).

Although these are 'gains', continually undersupplying customers may in the long run lead to a loss of sales, so it is better that inventory gains are instead detected by checking the delivery dockets and invoices as the inventory leaves (or arrives in) the business.

Recording an inventory gain

An inventory gain means that there is more inventory available for sale than is currently shown in the inventory card and Inventory account, so the quantity gained must be recorded in the IN column of the inventory card.

Example

On 31 August 2030, the **inventory count** of Smudge Garden Supplies revealed 51 pairs of G10 gardening gloves on hand: 23 pairs at \$10 each and 28 pairs at \$12 each (Memo 31). The **inventory card** on the same date showed 47 pairs on hand: 20 pairs at \$10 each and 27 pairs at \$12 each.

Comparing the two sets of data reveals an **inventory gain** of 3 pairs at \$10 each (20 according to the **inventory card** versus 23 according to the **inventory count**) and 1 pair at \$12 (27 according to the **inventory card** versus 28 according to the **inventory count**).

inventory gain

a revenue earned when the inventory count shows a figure for inventory on hand that is more than the balance shown in the inventory card



This inventory gain of 4 pairs of gloves would be recorded in the IN column of the inventory card, as shown in Figure 8.20:

Figure 8.20 Inventory card: inventory gain (Identified Cost)

Inventory Card										
Inventory item: Gardening Gloves						Cost method: Identified Cost				
Inventory code: G10						Supplier: Amsten Products				
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Aug. 1	Balance							22	10	220
15	Inv. 30A	30	12	360				22	10	220
								30	12	360
23	Rec. 30				2	10	10	20	10	200
					3	12	36	27	12	324
31	Memo 31	3	10	30				23	10	230
		1	12	12				28	12	336

Study tip

Like an inventory loss, the cost price of any inventory 'gained' will be identified under the Identified Cost method.

Following the recording of the inventory gain (\$42), the new BALANCE in the inventory card – 23 pairs at \$10 each and 28 pairs at \$12 each – is now the same as the inventory count (51 pairs) and totals \$566.

As an increase in assets (Inventory) that results in an increase in owner's equity, Inventory gain is a revenue item. Therefore, in the General Journal and General Ledger the Inventory gain account must be credited to record the revenue earned, and the

Inventory account must be **debited** to show the increase in the asset. Figure 8.21 shows how this would be recorded in the General Journal:

Figure 8.21 General Journal: inventory gain (Identified Cost)

General Journal			
Date	Details	Debit \$	Credit \$
Aug. 31	Inventory	42	
	Inventory gain		42
	Inventory gain of four pairs of gardening gloves		
	(G10) revealed by inventory count (Memo 31)		

Study tip

Inventory gain is a good reminder that revenue does not need to be cash; in this case, the asset that has increased is Inventory, with no effect on cash.

Effect on the Accounting equation

Assuming the business used Identified Cost, the effect of an inventory gain on the Accounting equation is the reverse of an inventory loss and would be:

	Increase/Decrease/No effect	Amount \$
Assets	Increase (Inventory)	42
Liabilities	No effect	
Owner's equity	Increase (Inventory gain revenue increases Net Profit)	42

An inventory gain increases both assets (**Inventory**) and owner's equity (through **Inventory gain** revenue increasing Net Profit).



Review questions 8.6

- 1 Define** the term 'inventory count'.
- 2 Explain** the role of an inventory count. **Identify** one Qualitative characteristic to support your answer.

Inventory loss

- 3 Define** the term 'inventory loss'.
- 4 Explain** why an inventory loss is classified as an expense.
- 5 Identify** three reasons for an inventory loss.
- 6 Explain** how the cost price of an inventory loss is determined if the business is using Identified Cost
- 7 Show** the General Journal entries necessary to record an inventory loss.
- 8 State** the effect of an inventory loss on the Accounting equation.

Inventory gain

- 9 Define** the term 'inventory gain'.
- 10 Explain** why an inventory gain is classified as a revenue.
- 11 Identify** two reasons for an inventory gain.
- 12 Explain** how the cost price of an inventory gain is determined if the business is using Identified Cost.
- 13 Show** the General Journal entries necessary to record an inventory gain.
- 14 State** the effect of an inventory gain on the Accounting equation.

8.7 Valuing inventory at the time of sale: FIFO

Where inventory is not labelled or marked – because it is impossible or impractical, or deemed by the owner to be not worth the time, effort and cost – the actual cost price of each individual item cannot be identified, and the Identified Cost method cannot be used. Therefore, when the inventory is sold, an *assumption* must be made about its cost price, and under the **First In, First Out (FIFO)** assumption, it is *assumed* that the inventory that was purchased first will be sold first. This will mean that inventory leaving the business is valued at the *earliest* cost price listed in the inventory card.

This is in some ways fair enough, as the actual flow of goods might reflect the FIFO assumption, with goods purchased first being those taken first by customers. However, there is no way of knowing for certain which items customers have taken; some customers are even inclined to not take the older items but instead fossick for the newer items. (Milk and some packaged goods might fall into this category.) It is therefore important to keep in mind that FIFO is only an *assumption* that is made in an attempt to value inventory items for which no cost price has been identified.

First In, First Out (FIFO)
a method of valuing inventory that assumes that, unless otherwise indicated, the first items purchased are the first sold, and therefore values inventory sold using the earliest cost price on hand

On 5 October 2030, Woolly Goods sold **10** coats to V-Rail for \$250 plus GST each (Inv. 132).

Example

Whereas the Identified Cost method would identify which coats came from which batch, under FIFO – which does *not* identify the cost price of each item – the only information provided is that **10** coats were sold. In order to allocate a cost price to each item sold, it is necessary to apply FIFO to the inventory card using the cost prices listed in the BALANCE column.

In this example, the BALANCE column shows that at the time of the sale there were 28 coats on hand: **8 coats** with a cost price of **\$100** (listed first because they were purchased first) and **20 coats** with a cost price of **\$120**.

The first coats IN (those purchased first and listed first in the BALANCE column) were valued at **\$100** each, so FIFO assumes that these **8 coats** are sold first. It is only once this first batch of inventory goes OUT that the second batch of coats – those purchased for **\$120** – are assumed to be sold. In this case there are an additional **2 coats** (to make up the 10 sold) that must be valued at **\$120** – the cost price of the inventory purchased more recently.

Study tip

To allow the Identified Cost and FIFO methods to be compared, the examples in this section mirror those used in Section 8.5.



Study tip

Compare Figure 8.22 with Figure 8.12 to see the difference in Cost of Sales between FIFO and Identified Cost.

Figure 8.22 shows how this would be recorded in the inventory card:

Figure 8.22 Inventory card: sale (FIFO)

Inventory Card										
Inventory item: Woollen Coat (Large) Inventory code: WC1-L								Cost method: FIFO Supplier: AG Mills		
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Oct. 1	Balance							8	100	800
2	Inv. XV35	20	120	2400				8	100	800
								20	120	2400
5	Inv. 132				8	100	800			
					2	120	240	18	120	2160

Applying FIFO still results in a total of **10** coats recorded in the OUT column, but *all* of the coats purchased in the first batch at \$100 each are assumed to be sold before *any* of the coats purchased in the next batch at \$120 each, leaving only the \$120 coats as those assumed to be still on hand.

The debits and credits to record the sale in the General Journal are the same as those used under Identified Cost, but the amount of the Cost of Sales (\$800 + \$240 = \$1 040) is different, as is shown in Figure 8.23:

Figure 8.23 General Journal: credit sale (FIFO)

General Journal			
Date	Details	Debit \$	Credit \$
Oct. 5	Account Receivable: V-Rail	2 750	
	Sales		2 500
	GST Clearing		250
	Cost of Sales	1 040	
	Inventory		1 040
	Credit sale of 10 coats (WC1-L) to V-Rail (Inv. 132)		

Study tip

Under FIFO, refer to the BALANCE column to determine which cost price/s to use for inventory sold.

Because it uses the oldest cost prices on hand, FIFO will lead to a lower valuation for Cost of Sales than Identified Cost when cost prices are rising.

Other OUT transactions: advertising and drawings

Where FIFO is used, it is also applied to other transactions recorded in the OUT column, such as the use of inventory for advertising or the withdrawal of inventory as drawings by the owner, with the oldest inventory assumed to be taken first.

Example

On 8 October 2030, Woolly Goods donated to a charity raffle **4 coats** (Memo 104).
On 10 October 2030, the owner of Woolly Goods took home **2 coats** (Memo 109).

Note that under FIFO there is no valuation given for the coats in the description of the transaction (or on the source document): as with a sale, the cost price of the inventory must be determined in the inventory card by referring to the BALANCE column.

Following the sale on 5 October 2030, the BALANCE of the inventory card now only shows coats on hand worth \$120 each, so this is the cost price used for both transactions. Figure 8.24 shows how this would be recorded in the inventory card:

Figure 8.24 Inventory card: advertising, drawings (FIFO)

Inventory Card										
Inventory item: Woollen Coat (Large)							Cost method: FIFO			
Inventory code: WC1-L							Supplier: AG Mills			
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Oct. 1	Balance							8	100	800
2	Inv. XV35	20	120	2400				8	100	800
								20	120	2400
5	Inv. 132				8	100	800			
					2	120	240	18	120	2160
8	Memo 104				4	120	480	14	120	1680
10	Memo 109				2	120	240	12	120	1440

Study tip

Compare Figure 8.24 with Figure 8.14 to see the difference in Advertising and Drawings using FIFO and Identified Cost.

Had the BALANCE column showed more than one cost price, FIFO would need to be applied just as for a sale, with the first items purchased assumed to be donated/taken by the owner first.

The debits and credits to record these transactions in the General Journal would be the same as those shown in Figure 8.15, but with different amounts as is shown in Figure 8.25:

Figure 8.25 General Journal: advertising, drawings (FIFO)

General Journal			
Date	Details	Debit \$	Credit \$
Oct. 8	Advertising	480	
	Inventory		480
	Four coats (WC1-L) donated to a charity raffle as advertising (Memo 104)		
10	Drawings	240	
	Inventory		240
	Two coats (WC1-L) withdrawn by owner (Memo 109)		

Purchase returns

Although also recorded in the OUT column, inventory returned to a supplier as a purchase return does not need to be valued using FIFO because, just like Identified Cost, its cost price is determined by that supplier and identified on the credit note they issue.

Sales returns

As the reverse of a sale, a sales return means that inventory is returning to the business from a customer (an Account Receivable), and this must be recorded in the IN column. In terms of valuing the inventory that has been returned, it requires an effective 'reversing of FIFO'.

Example

On 19 October 2030, V-Rail returned three of the coats they had purchased on 5 October 2030 because they were too large, and a credit of **\$250** plus GST per coat was given (Cr. Note 17).

Study tip

The cost price of a sales return is calculated by using the latest cost price/s shown in the OUT column of the inventory card, i.e. reversing the last out.

Study tip

Compare Figure 8.26 with Figure 8.16 to see the difference in the cost price of a Sales return between FIFO and Identified Cost.

**Video 8.1**

Recording in an inventory card using FIFO

For a sale, FIFO assumes that the inventory purchased earliest is sold first and that inventory purchased more recently is the last to go out. Therefore, to 'reverse the sale', a sales return should assume that the inventory that is last to go out is the first to 'come back'.

In practice, this means a sales return should value inventory at the cost price used in the *most recent transaction/s in the OUT column*. If more units of inventory have been returned than went OUT in the last transaction, the inventory valuation from the next most recent transaction should be used. And if the most recent transaction (sale, drawings or advertising) involved two *different* cost prices, then a reversal of FIFO assumes that the last inventory out is the first inventory to be returned.

In this case, the last inventory went OUT on 10 October 2030 (Memo 109), so the value of this inventory (**\$120** per coat) will be used to determine the cost price for 2 of the coats returned. However, 3 coats were returned, so it is necessary to also use the valuation used in the next most recent transaction in the OUT column on 8 October 2030 (Memo 104). Coincidentally, this cost price is also **\$120** so this valuation is used for the remaining 1 coat returned on 19 October 2030. Therefore, the total cost price of the return will be **\$360**.

Figure 8.26 shows how this would be recorded in the inventory card:

Figure 8.26 Inventory card: sales return (FIFO)

Inventory Card										
Inventory item: Woollen Coat (Large)							Cost method: FIFO			
Inventory code: WC1-L							Supplier: AG Mills			
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Oct. 1	Balance							8	100	800
2	Inv. XV35	20	120	2 400				8	100	800
								20	120	2 400
5	Inv. 132				8	100	800			
					2	120	240	18	120	2 160
8	Memo 104				4	120	480	14	120	1 680
10	Memo 109				2	120	240	12	120	1 440
19	Cr. Note 17	3	120	360				15	120	1 800

Using the cost price from the most recent transaction/s in the OUT column also means that inventory on hand is valued at the most recent prices, ensuring it is a *Faithful representation* of the current value of inventory.

The sales return, including the increase to **Inventory** and decrease to **Cost of Sales** (**\$360**), would thus be recorded in the General Journal as shown in Figure 8.27.

Figure 8.27 General Journal: sales return (FIFO)

General Journal			
Date	Details	Debit \$	Credit \$
Oct. 19	Sales returns	750	
	GST Clearing	75	
	Account Receivable – V-Rail		825
	Inventory	360	
	Cost of Sales		360
	Sales return of 3 coats (WC1-L) by V-Rail – too large (Cr. Note 17)		

Costs versus benefits

The benefits of valuing inventory using FIFO stem from the fact that it has no requirement to mark or label each individual item of inventory to identify its cost, meaning:

- **It can be applied to all types of inventory**

As noted in Section 8.5, there will be some occasions when it is not possible, practical or cost effective to use Identified Cost but, in these cases, FIFO can still be used as it does not require individual items of inventory to be marked or labelled.

- **It costs less to administer than Identified Cost**

FIFO does not require the same investment of time and labour (and therefore money) to label every item of inventory, and then record each code and cost price in the Accounting records. This means lower wages and other administrative costs, and also that staff are able to attend to matters other than inventory costing.

As it still uses cost prices that are *Verifiable* by reference to the source document, FIFO does still provide a *Faithful representation* of the value of inventory.

However, under FIFO there is no way of knowing if the cost prices allocated *at the time of the sale* were in fact those that applied to those individual items of inventory *at the time of their purchase*. Indeed, the valuation of Cost of Sales under FIFO is biased towards the inclusion of the inventory purchased first, and inventory on hand is biased towards the inclusion of the inventory purchased last.

This means that, compared with Identified Cost, FIFO will tend to lead to a *lower* Cost of Sales (and therefore higher profit and higher owner's equity) and *higher* value of inventory on hand (assuming prices are rising).

Study tip

Opposites often apply in Accounting: many of the costs of the Identified Cost method are the benefits of FIFO and vice versa.



Review questions 8.7

- 1 **Explain** why a small business might choose to **not** use the Identified Cost method to value its inventory.
- 2 **Explain** how the FIFO assumption values inventory at the time of sale.
- 3 **Identify** two transactions other than sales for which the FIFO assumption may be used to value inventory.
- 4 Under FIFO, **explain** how inventory is valued when it is returned to a supplier as a purchase return.
- 5 Under FIFO, **explain** how inventory is valued when it is returned by a customer as a sales return.
- 6 **Explain** the benefits of using the FIFO assumption when compared with Identified Cost.
- 7 **Discuss** the extent to which the FIFO assumption ensures *Faithful representation* in the reports.
- 8 Compared with Identified Cost, **explain** how the use of FIFO will affect Cost of Sales and the value of inventory on hand when prices are rising.



8.8 Inventory losses and gains: FIFO

Study tip

To allow the Identified Cost and FIFO methods to be compared, the examples in this section mirror those used in Section 8.6.

Regardless of which method is used to value inventory, an inventory count remains necessary to check that the number of items on hand as per the inventory cards matches what is actually present in the store. However, where FIFO is used the inventory count will simply note the total number of units on hand for each line of inventory: it will not note any valuations.

Inventory losses

Under FIFO, the value of any inventory loss is determined in the same way as it is for any inventory sold, withdrawn by the owner or used for Advertising: by using the oldest cost price of available inventory on hand.

Example

On 31 July 2030 the inventory records of Demon Sports included an **inventory card** for Princess tennis racquets that showed that the business had on hand **5 racquets** with a cost price of **\$60 each** and **7 racquets** with a cost price of **\$65 each**. On 31 July 2030, the **inventory count** showed **9 racquets** on hand (**Memo 72**).

Study tip

FIFO applies to an inventory loss just as it applies to sales: the oldest inventory still on hand should be assumed to be 'lost' first.

In this case, the **inventory card** shows that there are, in total, **12 racquets** on hand, meaning **3 racquets** (12 versus 9 counted) are missing and will be recorded as an inventory loss. Because the cost price of each item of inventory is not identified, FIFO is applied to value these units at the first (oldest) price in the **BALANCE** column, which in this case is **\$60 per racquet**.

This inventory loss of **3 racquets** would be recorded in the **OUT** column of the inventory card, as shown in Figure 8.28:

Study tip

Compare Figure 8.28 with Figure 8.18 to see the difference in the valuation of an inventory loss between FIFO and Identified Cost.

Figure 8.28 Inventory card: inventory loss (FIFO)

Inventory Card										
Inventory item: Tennis racquet – Princess 500							Cost method: FIFO			
Inventory code: P500							Supplier: Princess Racquets			
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
July 31	Balance							5	60	300
								7	65	455
31	Memo 72				3	60	180	2	60	120
								7	65	455



Regardless of whether the business uses FIFO or Identified Cost, the total number of units lost (3) and the total remaining on hand (9) is the same. However, the application of FIFO when cost prices are rising leads to a *lower inventory loss* expense (\$180), because it assumes that the older, cheaper items are 'lost' first. It also leads to a *higher* valuation of the *inventory* on hand (\$575), as it assumes that the newer, more expensive items remain on hand.

In the General Journal and General Ledger, the same accounts are debited and credited to record the inventory loss, but compared with Identified Cost the amount is different, as is shown in Figure 8.29:

Figure 8.29 General Journal: inventory loss (FIFO)

General Journal			
Date	Details	Debit \$	Credit \$
July 31	Inventory loss	180	
	Inventory		180
	Inventory loss of 3 Princess tennis racquets (P500)		
	revealed by inventory count (Memo 72)		

As is the case with a sale, when there is more than one cost price in the inventory card, the amount of an inventory loss will be different if using FIFO instead of Identified Cost, and in times of rising prices FIFO will generate the lowest possible inventory loss figure, leaving the highest possible valuation of inventory on hand.

Inventory gains

FIFO values inventory as it moves OUT of the business by using the earliest cost price in the BALANCE column as this is the most logical flow of goods. However, because an inventory gain represents a movement IN to the business, FIFO does not apply; instead, an inventory gain is valued by referring to the most recent transaction in the IN column.

On 31 August 2030, the *inventory count* of Smudge Garden Supplies revealed 51 pairs of G10 gardening gloves on hand (Memo 31). The *inventory card* on the same date showed 47 pairs on hand: 20 pairs at \$10 each and 27 pairs at \$12 each.

Example

Where FIFO is used, the *inventory count* will simply note the total number of units on hand (51 pairs), which, when compared against the *inventory card* (47 pairs), reveals an inventory gain (of 4 pairs). However, there is nothing to identify the cost price of these items: the gloves could be from the \$10 batch or the \$12 batch. What cost price is to be used?

The most logical assumption to make is that the 'extra' items were delivered in the last batch – the most recent (latest) transaction in the IN column. (It is fair to assume that any inventory gained from earlier purchases would by now have been sold.) This is also the valuation that gives the most *Faithful representation* of the value of inventory on hand, as the most recent cost prices reflect what the business would be charged if it was to purchase those items at the time of the inventory count, and they are likely to be more accurate and less subject to bias.

Study tip

FIFO values an inventory gain using the most recent (latest) price in the IN column.

In this case, the most recent transaction in the IN column is a purchase on 15 August 2030, meaning the 4 pairs should be valued at \$12 each, which would be recorded in the IN column of the inventory card, as shown in Figure 8.30:

Figure 8.30 Inventory card: inventory gain (FIFO)

Inventory Card										
Inventory item: Gardening Gloves					Cost method: FIFO					
Inventory code: G10					Supplier: Amsten Products					
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Aug. 1	Balance							22	10	220
15	Inv. 30A	30	12	360				22	10	220
								30	12	360
23	Rec. 30				5	10	50	17	10	170
								30	12	360
31	Memo 31	4	12	48				17	10	170
								34	12	408

Study tip

Compare Figure 8.30 with Figure 8.20 to see the difference in the valuation of an inventory gain between FIFO and Identified Cost.

Although not an application of FIFO itself (as inventory is coming IN rather than going OUT), this approach has in common with FIFO that it assumes that the newer items remain on hand.

As a result, when cost prices are rising it will lead to the highest possible inventory gain revenue (\$48), and therefore the highest possible valuation of inventory on hand (\$578), as it assumes that the newer, more expensive items are gained and there are now more of these items on hand.

Whether Identified Cost or FIFO is used, the debits and credits in the General Journal and General Ledger are the same but the amounts are likely to be different, as is shown in Figure 8.31:

Figure 8.31 General Journal: inventory gain (FIFO)

General Journal			
Date	Details	Debit \$	Credit \$
Aug. 31	Inventory	48	
	Inventory gain		48
	Inventory gain of 4 pairs of gardening gloves (G10)		
	revealed by inventory count (Memo 31)		

In times of rising prices, where the most recent transaction is a purchase, FIFO will generate the highest possible inventory gain figure, leaving the highest possible valuation of inventory on hand.



Review questions 8.8

- 1 Explain** how the cost price of an inventory loss is determined if the business is using FIFO.
- 2 Explain** the effect of FIFO on the valuation of inventory loss and inventory on hand when prices are rising.
- Referring to one Qualitative characteristic, **explain** how the cost price of an inventory gain is determined if the business is using FIFO.
- 4 Explain** how the valuation of an inventory loss is consistent with the valuation of inventory on hand under FIFO.
- 5 Explain** the effect of FIFO on the valuation of inventory gain and inventory on hand when prices are rising.



8.9 Identified Cost versus FIFO

The different inventory valuation methods described in this chapter – Identified Cost and FIFO – result in exactly the same *number* of units sold and left on hand in the inventory card, and the accounts to be debited and credited (in the General Journal and General Ledger) are the same regardless of which method is used. However, because each method determines the cost price of inventory differently, they will lead to different *valuations* of both Cost of Sales and inventory on hand.

Cost of Sales and other inventory expenses

Because FIFO assumes that the first items purchased are the first items sold, in times of rising cost prices it will assume that the older, cheaper items have been sold first. This means that under FIFO, Cost of Sales be lower, and therefore Net Profit and owner's equity will be higher, than Identified Cost.

In fact, when cost prices are rising FIFO will lead to the lowest possible valuation of any inventory expense, including Cost of Sales, advertising and inventory loss, and therefore the highest possible valuation of Net Profit and owner's equity.

Inventory on hand

In turn, FIFO will assume that the newer, more expensive items of inventory remain on hand, leading to a higher valuation of inventory on hand than Identified Cost, and the highest possible valuation of inventory on hand and overall assets.

This analysis is confirmed using the information provided from the examples in this chapter, which have been brought together for comparison in Figure 8.32:

Figure 8.32 Identified Cost versus FIFO

Identified Cost (from Figure 8.12)			FIFO (from Figure 8.22)		
Cost of Sales			Cost of Sales		
(3 units × \$100 per unit)	300		(8 units × \$100 per unit)	800	
(7 units × \$120 per unit)	840	1 140	(2 units × \$120 per unit)	240	1 040
Inventory on hand			Inventory on hand		
(5 units × \$100 per unit)	500				
(13 units × \$120 per unit)	1 560	2 060	(18 units × \$120 per unit)		2 160

In terms of Cost of Sales, FIFO (**\$1 040**) provides a *lower valuation than Identified Cost (\$1 140)* because FIFO assumes that **all** of the older, **\$100** items are sold before any of the **\$120** items. By contrast, Identified Cost can include in Cost of Sales any (or all) of the newer, more expensive items if these are identified as being sold. The same would apply to advertising, drawings and inventory loss – all transactions from the OUT column – with FIFO producing the lowest possible valuation for these transactions.

For inventory on hand, FIFO (**\$2 160**) provides a *higher valuation than Identified Cost (\$2 060)*, because as a consequence of assuming the older items are sold, FIFO assumes that only the newer, **\$120** items remain on hand. Identified Cost, on the other hand, still identifies some of the items on hand as being from the older, cheaper \$100 batch.

If prices are falling, this situation would reverse, with FIFO generating a higher valuation of Cost of Sales and lower Net Profit and owner's equity; and a lower

Study tip

If prices are rising, Cost of Sales under the Identified Cost method may be the same as FIFO, but it will never be lower.

inventory on hand. However, if all inventory was sold, both methods would produce the same valuations over the life of the business.

The decision to use one valuation method over the other should not be based on the figures each generates, as both methods will produce information that is *Relevant* and provides a *Faithful representation* of the inventory. Instead, a decision should be made by weighing the benefits of each method against its costs in relation to the specific inventory held by that particular business.

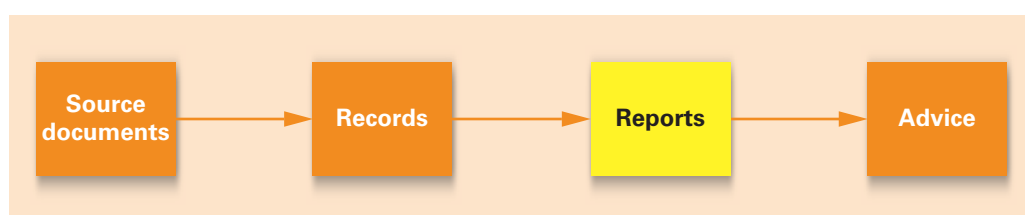


Review questions 8.9

- 1 **Explain** how the use of FIFO instead of Identified Cost affects the accounts that must be debited and credited to record inventory transactions.
- 2 **Explain** how the use of FIFO instead of Identified Cost affects the valuation of Cost of Sales and inventory on hand in times of rising prices.
- 3 **Explain** how the use of FIFO instead of Identified Cost affects the valuation of Cost of Sales and inventory on hand if all inventory is sold.
- 4 **Explain** how an inventory valuation method should be chosen.



8.10 Reporting for inventory



Once inventory transactions are entered in the inventory cards and recorded in the General Journal and General Ledger, the records will contain all the information that is necessary to prepare reports.

Balance Sheet

Relevance says that there is little point in identifying every line of inventory, and the quantity and cost price of every line of inventory, in the Balance Sheet as this level of detail will not make a difference to decision-making about the firm's overall position.

As a result, only the balance of the Inventory account must be reported in the Balance Sheet as a current asset: a present economic resource controlled by the business that is expected to be sold in the next 12 months.

Income Statement

The main reason any business exists is to generate profits for its owner, and the Income Statement details that profit by reporting revenues and expenses. So how does inventory affect the report?

1 Sales revenue

Sales of inventory will be the main source of revenue for a trading firm, and this will be recorded in the General Journal and shown as the balance of the Sales account in the General Ledger. Given its importance, Sales revenue must be reported separately

to Other revenues, such as Discount revenue, which do not relate specifically to inventory. (These are covered in more detail in Chapter 10.)

2 Sales returns

Sales returns are recorded in their own separate ledger account, and reported separately in the Income Statement, so that the owner has the information to make decisions about the suitability of the inventory that is being sold (and returned). As a negative revenue, **Sales returns** is reported as a deduction from Sales, leaving **Net Sales**. In Figure 8.33, this Net Sales figure is \$30 000.

3 Cost of Goods Sold

The inventory cards are necessary to calculate the cost price of each sale, and this **Cost of Sales** information is recorded in the General Journal before it is posted to the Cost of Sales account in the General Ledger. The Cost of Sales account records the expense incurred when inventory is sold or, more specifically, the suppliers' price for the goods that were sold.

However, Cost of Sales may be only one of a number of expenses related to inventory, as other costs may have been incurred before the inventory was ready for sale. The term **Cost of Goods Sold (COGS)** is used to describe all costs incurred in getting goods into a condition and location ready for sale in a particular Period, with **Cost of Sales** simply one of the items that may be reported under this heading. Expenses such as customs duty and freight in are also part of the total COGS, which must be deducted from Sales revenue to determine Gross Profit.

4 Gross Profit

In mathematical terms, Gross Profit is the difference between Sales revenue and Cost of Goods Sold. Because Gross Profit expresses the relationship between the firm's selling and cost prices, it is important that this figure is identified (with its own heading) to allow the owner to assess the adequacy of the firm's mark-up.

5 Adjusted Gross Profit

Any **inventory loss** must be deducted from Gross Profit to show Adjusted Gross Profit, while any inventory gain would be added. Isolating the inventory loss or gain brings it to the attention of the owner so that strategies may be developed to address any problems that are identified.

A standard Income Statement for a trading firm would be similar to the one shown in Figure 8.33:

Net Sales

overall Sales revenue earned in a particular Period after the deduction of Sales returns

Cost of Goods Sold (COGS)

all costs incurred in getting inventory into a condition and location ready for sale in a particular Period

Figure 8.33 Income Statement showing Gross Profit and Adjusted Gross Profit

MARCONI ELECTRONIC PRODUCTS Income Statement (extract) for August 2030		
	\$	\$
Revenue		
Sales ¹	31 500	
Less Sales returns ²	1 500	30 000
Less Cost of Goods Sold ³		
Cost of Sales	17 000	
Customs Duty	2 000	
Freight In/Delivery from Suppliers	1 000	20 000
Gross Profit ⁴		10 000
Less Inventory loss		500
Adjusted Gross Profit ⁵		9 500

Study tip

Discount revenue is not reported here, as it is earned not by selling inventory but by paying Accounts Payable early. The same applies to discount expense; it affects the amount paid, not the amount *incurred* for inventory.

This is obviously not a complete Income Statement, as it does not show any other 'garden variety' expenses, such as wages, rent or advertising, and it does not show Net Profit. (These will be covered in Chapter 10 when the Income Statement is addressed in detail.)

However, this top section of the Income Statement, sometimes referred to as a Trading Statement, details the effect of inventory transactions on profit, and this information is vital to running a successful trading business.



Review questions 8.10

- 1 **Define** the term 'Cost of Goods Sold'.
- 2 **State** two reasons why Cost of Goods Sold may be greater than Cost of Sales.
- 3 **Explain** why it is important to identify Gross Profit in the Income Statement.
- 4 **Explain** why it is important to identify Adjusted Gross Profit in the Income Statement.



8.11 Benefits of the perpetual system

perpetual system of inventory recording

recording inventory transactions in inventory cards, then conducting a physical inventory count at the end of the Period to verify the balances of those inventory cards, in the process detecting any inventory losses or gains

The inventory recording system explained here consists of inventory cards, an Inventory account in the General Ledger and a physical inventory count. These are the key elements of what is known as the **perpetual system of inventory recording**, which involves recording individual inventory transactions in inventory cards as they occur, then conducting a physical inventory count at the end of the Period to verify the balances of those inventory cards. In the process, any inventory losses or gains will be detected.

The key benefits of adopting a perpetual system for recording inventory transactions include:

- **reordering of inventory is assisted**
Because inventory cards provide a continuous record of the number of units of inventory on hand, they can inform the owner when levels of inventory are low. This *Timely* information can lead to better business decisions, such as reordering inventory before it runs out and sales are lost.
- **inventory losses and gains can be detected by comparing the balances of the inventory cards against the physical inventory count**
The inventory cards state what *should* be in inventory and the inventory count states what actually *is* on hand: any discrepancy means an inventory loss or gain has occurred. The perpetual system thus ensures that information is *Verifiable* and provides a *Faithful representation* of the value of the firm's inventory.
- **fast- and slow-moving lines of inventory can be identified**
By examining the frequency of sales recorded in the OUT column of each inventory card, the owner can identify which lines are selling well (or not so well). Inventory lines can then be moved (within the shop), or the inventory mix (the type and numbers of inventory on hand) can be adjusted to include more of the high-selling lines (and less of the inventory that is not selling).

Having said that, the perpetual system is not without its costs, in time and money, including:

- **staffing**
Every transaction must be recorded either manually or electronically, and the business will need to pay a staff member to record or monitor what has been recorded. (This cost would increase if the business decided to use Identified Cost and mark or label each unit of inventory.)

Study tip

See Chapter 9 for a more detailed explanation of inventory management strategies.

- **training**

Staff must be trained in the systems – manual or electronic – used to record inventory transactions, and the business may need to pay for this training.

- **technology (set-up and maintenance)**

At the very least, this would include the cost of purchasing computer hardware and more specialised equipment like scanners, but it could also include specialised software and IT support, all of which have associated costs.

As with most business decisions, the adoption of a perpetual system involves a consideration of costs and benefits. Years ago, the nature of the inventory would have been a more important consideration, with this system thought unsuited to cheap, fast-turnover items. However, the proliferation of IT solutions means the perpetual system can be used for almost all types of inventory.



Review questions 8.11

- 1 **Explain** the operation of the perpetual system of inventory recording.
- 2 **Explain** the benefits of the perpetual system of inventory recording.
- 3 **Explain** the costs of the perpetual system of inventory recording.



Where have we been?

- Inventory is defined as goods held by a trading firm for the purpose of resale.
- Inventory is of paramount importance to a trading firm, as it is its main source of revenue and one of its most significant assets.
- The Inventory account summarises all inventory transactions; inventory cards detail individual transactions affecting each line of inventory.
- Inventory cards are used to determine the cost price of sales (the Cost of Sales), as the source documents will only show the selling price.
- Identified Cost labels each item of inventory with its cost price.
- First In, First Out (FIFO) assumes that inventory that is purchased first will be sold first.
- In times of rising prices, FIFO will lead to the lowest possible Cost of Sales and highest possible profit and inventory on hand.
- A physical inventory count is conducted at the end of the Period to verify the balances in the inventory cards and, in the process, detect any inventory losses or gains.
- The Income Statement reports for inventory by identifying both Gross Profit and adjusted Gross Profit.

Exercises

Please note: asterisks indicate that an answer for that question is available in the Selected Answers section at the end of this book.



Exercise 8.1

Inventory cards: constant cost prices

At the start of October 2030, Mark's Mattresses had 60 SuperSoft mattresses (inventory code SSM) on hand, each with a cost price of \$130 each.

During October 2030, the following transactions took place:

- Oct. 2 Purchased 25 mattresses at \$130 (plus \$13 GST) each from SuperSoft (Inv. 4512)
- 5 Sold 20 mattresses for \$200 (plus \$20) GST each to Bed World (Inv. 52)
- 7 Returned 2 mattresses to SuperSoft because they were damaged for a credit of \$130 plus GST each (Cr. Note 101)
- 11 Purchased 30 mattresses at \$143 including GST each (EFT Rec. 2001)
- 14 Sold 40 mattresses for \$220 each including GST (Rec. 764)
- 17 Purchased 20 mattresses paying a total of \$2 860 including GST (EFT Pay. 580)
- 20 Bed World changed its mind and returned 1 mattress it purchased on 5 October 2030 for a credit of \$220 including GST (Cr. Note 16)
- 22 Sold 10 bedside tables for \$120 (plus GST) each (EFT Rec. 968)
- 26 Donated two mattresses to the local school for use in its sick bay (Memo 43)
- 29 Sold 30 mattresses for a total of \$6 600 including GST (Rec. 1071)
- 31 Mark took home 1 mattress for use in his spare room (Memo 46)

Required

- a. **Explain** the impact of GST on the recording of transactions in the inventory cards.
- b. **Record** the transactions for October 2030 in the inventory card for SuperSoft mattresses.
- c. Referring to your answer to part b, **explain** your treatment of the transaction on 22 October 2030.
- d. **Calculate** the Cost of Sales of SuperSoft mattresses for October 2030.
- e. Referring to your answer to part b, **explain** why the balance is unlikely to be the amount reported in the Balance Sheet for Mark's Mattresses as at 31 October 2030.
- f. **Record** the following transactions in the General Journal of Mark's Mattresses:
 - 2 October 2030
 - 5 October 2030
 - 7 October 2030
 - 20 October 2030
 - 26 October 2030
- g. Referring to one Accounting assumption, **explain** why the transaction on 31 October 2030 results in a decrease in owner's equity.



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Exercise 8.2

Inventory cards: Identified Cost

Casey's Cabinets uses Identified Cost to value its inventory and as at 1 May 2030 had on hand 40 glass-fronted cabinets (inventory code GF900), which it had purchased for \$240 (plus GST) each.

During May 2030, the following transactions took place:

- May 2 Purchased 20 cabinets for \$250 (plus GST) each from Fisher Furniture (Inv. C745).
- 4 Sold 35 cabinets at a selling price of \$500 (plus GST) each to GQ Design (Inv. 76). Of the cabinets, 23 were valued at \$240 each and 12 were valued at \$250 each.
- 7 Casey took from inventory 2 cabinets (with an Identified Cost of \$250) to give to her niece (Memo 34).
- 12 GQ Design returned 5 of the cabinets it purchased on 4 May 2030 because the colour was slightly wrong and were granted a credit of \$550 (including GST) per cabinet (Cr. Note 21). The cabinets were identified as having a cost price of \$240.
- 15 Returned to Fisher Furniture the 5 cabinets returned by GQ Design for a total credit of \$1 320 (Cr. Note A56).
- 19 Purchased 30 cabinets at \$286 (including GST) each from Fisher Furniture (Inv. C786).
- 24 Sold 20 cabinets for \$550 (including GST) each (Rec. 98). Of these cabinets, 8 had a cost price of \$240 and 12 had a cost price of \$260.
- 28 Delivered 4 cabinets (with a cost price of \$240 each) to be used in a display in a home-maker centre (Memo 37).
- 31 Sold 15 cabinets to GQ Design at a total invoice price of \$8 250 including GST (Inv. 89). All of these cabinets were from the inventory purchased on 19 May 2030.

Required

- a. **Record** the transactions for May 2030 in the inventory card for GF900 glass-fronted cabinets.
- b. **Record** the following transactions in the General Journal of Casey's Cabinets:
 - 4 May 2030
 - 7 May 2030
 - 12 May 2030
 - 15 May 2030
 - 24 May 2030
 Narrations are **not** required.
- c. **Explain** how inventory is valued under the Identified Cost method.
- d. **Explain** why it is ethical to include in the same sale any inventory that has been purchased at different cost prices.
- e. **Calculate** the Cost of Sales of GF900 glass-fronted cabinets for May 2030.
- f. **Calculate** the Gross Profit on GF900 glass-fronted cabinets for May 2030.
- g. Assuming GST Clearing has a credit balance, **explain** the effect on the Accounting equation of the transaction on 31 May 2030.



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Ethical considerations

**Exercise 8.3****Inventory loss: Identified Cost**

Darren's Desks supplies offices and homes with solid wood desks. Darren's most popular brand is the Executive 1000, and on 31 March 2030, the inventory card showed the following:



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Inventory Card										
Inventory item: Executive 1000 Inventory code: EX1000							Location: Aisle 3 Supplier: Partner Desks			
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Mar. 31	Balance							4	290	1 160
								15	300	4 500
								10	320	3 200

An inventory count on 31 March 2030 showed that there were 27 Executive 1000 desks on hand: 3 at \$290 each, 15 at \$300 each and 9 at \$320 each (Memo 95).

Required

- Referring to one Qualitative characteristic, **explain** the role of an inventory count.
- Apart from theft, **state** two possible reasons for the discrepancy between the inventory card for Executive 1000 desks and the inventory count.
- Record** Memo 95 in the inventory card for Executive 1000 desks.
- Record** Memo 95 in the General Journal of Darren's Desks.
- Referring to the definitions, **explain** why an inventory loss is reported as an expense.
- Explain** the effect of Memo 95 on the Accounting equation of Darren's Desks as at 31 March 2030.

**Exercise 8.4****Inventory gain: Identified Cost**

Clinnick Music sells musical equipment, and on 31 December 2030 the inventory card for Voss Headphones showed the following:



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Inventory Card										
Inventory item: Voss Headphones Inventory code: MVH							Location: Back wall Supplier: Voss Inc.			
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Dec. 31	Balance							14	80	1 120
								7	90	630

An inventory count on 31 December 2030 showed that there were 24 pairs of Voss Headphones on hand: 15 with a cost price of \$80 each and 9 with a cost price of \$90 each (Memo 115).

Required

- State** two possible reasons for the discrepancy between the inventory card for Voss Headphones and the inventory count.
- Record** Memo 115 in the inventory card for Voss Headphones.
- Record** Memo 115 in the General Journal of Clinnick Music.
- Referring to the definitions, **explain** why an inventory gain is reported as revenue.
- Explain** the effect of Memo 115 on the Accounting equation of Clinnick Music as at 31 December 2030.
- Explain** one benefit Clinnick Music would derive by changing to FIFO from the start of 2031.

**Exercise 8.5****Inventory cards: First In, First Out (FIFO)**

Eclipse Trading uses FIFO to value its inventory and as at 1 January 2030 had on hand \$5 000 worth of picture frames (inventory code 45B). This was made up of 50 frames at \$40 each (which had been purchased first) and 60 frames at \$50 each.

During January 2030, the following transactions occurred:

- Jan. 3 Sold 35 frames to Painters Inc. for \$100 (plus GST) each (Inv. 44).
 5 Purchased 30 frames at \$50 (plus GST) each (EFT Pay. 6243).
 10 Sold 40 frames at \$110 (including GST) each (EFT Rec. 68).
 12 Purchased 40 frames from Zimmer Frames for \$60 (plus GST) each (Inv. ZF390).
 16 Took 12 frames from inventory to be used in a display at the local council chambers (Memo 14).
 19 Painters Inc. returned 3 of the frames purchased on 3 January 2030 because they were the wrong size for a total credit of \$330 including GST (Cr. Note 55).
 20 Sold 60 frames at \$110 including GST each (Rec. 114).
 22 Returned 6 frames to Zimmer Frames for a credit of \$396 including GST (Cr. Note ZF82).
 30 Purchased 25 frames from Zimmer Frames for a total price of \$1 925 including GST (Inv. ZF402).

Required

- Record** the transactions for January 2030 in the inventory card for 45B picture frames.
- Explain** how inventory is valued under the FIFO method.
- Referring to your answer to part **a**, **explain** your valuation of the inventory in the transaction on 20 January 2030.
- Calculate** the Cost of Sales of 45B picture frames for January 2030.
- Record** the following transactions in the General Journal of Eclipse Trading:
 - 10 January 2030
 - 16 January 2030
 - 19 January 2030
 - 22 January 2030
 - 30 January 2030
 Narrations are **not** required.
- Explain** how the use of FIFO affects the valuation of Cost of Sales when prices are rising.



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 Exercise 8.6
Inventory loss: FIFO

Essen Electrical specialises in the sale of dishwashers for small restaurants, and its most popular item is the FP 2000. Inventory is valued using FIFO, and on 30 June 2030 the inventory card of FP 2000 dishwashers showed the following:


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Inventory Card										
Inventory item: FP 2000 dishwasher							Location: Row 16, Bay 3			
Inventory code: FP 2000							Supplier: FP Dishwashers			
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
June 30	Balance							6	600	3 600
								12	620	7 440

An inventory count on 30 June 2030 showed that there were 17 dishwashers on hand (Memo 37).

Required

- a. **Record** Memo 37 in the inventory card for FP 2000 dishwashers.
- b. Referring to your answer to part a, **explain** how the FIFO method of inventory valuation is applied to an inventory loss.
- c. **Record** Memo 37 in the General Journal of Essen Electrical.
- d. **Explain** the effect on the Balance Sheet of Essen Electrical as at 30 June 2030 if Memo 37 was **not** recorded.
- e. The owner of Essen Electrical has suggested that the cause of the inventory loss is undersupply by the supplier. **Explain** how this could have occurred, and **suggest** one action Essen Electrical could take to prevent this in the future.

.....



**Exercise 8.7****Inventory gain: FIFO**

Bayside Knitting sells wool, needles and knitting materials. Inventory is valued using FIFO, and on 30 April 2030 the inventory card of mohair wool (blue) showed the following:



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Inventory Card										
Inventory item: Mohair wool, blue Inventory code: MBL								Location: Aisle 7 Supplier: Aust. Wool Mills		
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
April 1	Balance							23	10	230
7	EFT 1002	30	11	330				23	10	230
								30	11	330
19	Rec. 56				8	10	80	15	10	150
								30	11	330

An inventory count on 30 April 2030 showed that there were 47 balls of mohair wool (blue) on hand (Memo 43).

Required

- Explain** one reason why Bayside Knitting may have decided to use FIFO to value its inventory.
- Record** Memo 43 in the inventory card for mohair wool (blue).
- Referring your answer to part **b**, **explain** how the inventory loss or gain was valued.
Identify one Qualitative characteristic to support your answer.
- Record** Memo 43 in the General Journal of Bayside Knitting.
- Referring to one Qualitative characteristic, **explain** why Bayside Knitting should **not** change the method it uses to value its inventory.





Exercise 8.8

Inventory cards: FIFO (v. Identified Cost)

Note: this exercise uses the same data as Exercise 8.2 but assumes the use of FIFO instead of Identified Cost.

As at 1 May 2030, Casey's Cabinets had 40 glass-fronted cabinets (inventory code GF900) on hand, which it had purchased for \$240 (plus GST) each.

During May 2030, the following transactions took place:

- May 2 Purchased 20 cabinets for \$250 (plus GST) each from Fisher Furniture (Inv. C745).
- 4 Sold 35 cabinets at a selling price of \$500 (plus GST) each to GQ Design (Inv. 76).
- 7 Casey took from inventory 2 cabinets to give to her niece (Memo 34).
- 12 GQ Design returned 5 of the cabinets it purchased on 4 May 2030 because the colour was slightly wrong and were granted a credit of \$550 (including GST) per cabinet (Cr. Note 21).
- 15 Returned to Fisher Furniture the 5 cabinets returned by GQ Design for a total credit of \$1 320 (Cr. Note A56).
- 19 Purchased 30 cabinets at \$286 (including GST) each from Fisher Furniture (Inv. C786).
- 24 Sold 20 cabinets for \$550 (including GST) each (Rec. 98).
- 28 Delivered 4 cabinets to be used in a display in a home-maker centre (Memo 37).
- 31 Sold 15 cabinets to GQ Design at a total invoice price of \$8 250 including GST (Inv. 89).

Required

- a. **Record** the transactions for May 2030 in the inventory card for GF900 glass-fronted cabinets *using FIFO*.
- b. Referring to your answer to part a of Exercise 8.8 and part a of Exercise 8.2, **identify** how many GF900 glass-fronted cabinets are on hand on 24 May 2030.
- c. **Calculate** the Cost of Sales of GF900 glass-fronted cabinets for May 2030 using FIFO.
- d. Referring to your answer to part c of Exercise 8.8 and part e of Exercise 8.2, **calculate** the difference in the Cost of Sales of GF900 glass-fronted cabinets for May 2030 using FIFO when compared with Identified Cost. **Explain** the reason for this difference.
- e. Referring to the information in Exercise 8.8 and Exercise 8.2, **explain** how the use of FIFO affects the valuation of inventory on hand when prices are rising.
- f. **Discuss** whether Casey's Cabinets should use Identified Cost or FIFO to value its inventory.



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Exercise 8.9

Reporting for inventory

Warren's Woks has provided the following Trial Balance as at 30 September 2030:

WARREN'S WOKS Trial Balance as at 30 September 2030		
Account	Debit \$	Credit \$
Accounts Payable		9 200
Accounts Receivable	13 100	
Advertising	6 000	
Bank	4 300	
Capital – Warren		59 900
Cost of Sales	40 000	
Customs duty	2 200	
Drawings	3 000	
GST Clearing		3 400
Interest	600	
Inventory	19 500	
Mortgage – BH Bank		90 000
Premises	120 000	
Sales		81 200
Sales returns	1 200	
Shelving	17 500	
Wages	16 300	
Totals	243 700	243 700

Additional information:

- A physical inventory count on 30 September 2030 showed inventory on hand worth \$19 000.
- The principal of the Mortgage – BH Bank is repayable at \$1 000 per month.

Required

- State** whether interest is a revenue or expense item for Warren's Woks for September 2030. **Justify** your answer.
- Prepare** an Income Statement for Warren's Woks for September 2030.
- Referring to your answer to part **b**, **justify** your treatment of customs duty.
- Explain** the importance of showing Gross Profit in the Income Statement of a trading firm.
- Prepare** a Balance Sheet for Warren's Woks as at 30 September 2030.



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Exercise 8.10

Reporting for inventory

Pots 'n' Pans has provided the following Trial Balance as at 30 June 2030:



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POTS 'N' PANS Trial Balance as at 30 June 2030		
Account	Debit \$	Credit \$
Accounts Receivable	4 600	
Accounts Payable		6 300
Bank		1 500
Capital – Pamela		41 000
Cartage in	1 900	
Cost of Sales	60 000	
Delivery to customers	2 500	
Drawings	5 000	
GST Clearing		500
Inventory	19 300	
Loan – QuickFin		20 000
Rent expense	14 000	
Sales		96 800
Sales returns	6 800	
Shop fittings	40 000	
Wages	12 000	
Totals	\$166 100	\$166 100

Additional information:

- A physical inventory count on 30 June 2030 showed an inventory gain of \$700.
- The Loan – QuickFin is an interest-only loan due for repayment on 1 July 2035.

Required

- Prepare** an Income Statement for Pots 'n' Pans for June 2030.
- Referring to your answer to part **a**, **explain** why the owner might be concerned about the quality of the firm's inventory.
- Referring to your answer to part **a**, **evaluate** the adequacy of the mark-up applied by Pots 'n' Pans.
- Prepare** a Balance Sheet for Pots 'n' Pans as at 30 June 2030.
- Referring to your answer to part **d**, **discuss** whether the Drawings figure is too high.





Exercise 8.11

Interpreting inventory cards

Michael Conlon owns The Good Oil, which imports olive oil from Sicily and sells it to retail stores throughout Melbourne. All inventory is sold at a 50% mark-up.

The inventory card for Virgin Olive Oil for November 2030 is shown below:



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Inventory Card										
Inventory item: Virgin Olive Oil Inventory code: VO 01								Location: Aisle 17 Supplier: Familia Oil Co.		
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Nov. 1	Balance							50	30	1 500
3	Cr. Note 29	2	30	60				52	30	1 560
4	Cr. Note 12				2	30	60	50	30	1 500
9	Inv. L63				40	30	1 200	10	30	300
13	Inv. X70	50	40	2 000				10	30	300
								50	40	2 000
16	Memo 63				4	30	120	6	30	180
								50	40	2 000
22	Rec. 19				6	30	180			
					24	40	960	26	40	1 040
30	Memo 64				3	40	120	23	40	920

Required

- Identify** whether The Good Oil uses Identified Cost or FIFO to value its Virgin Olive Oil. **Justify** your answer by referring to at least one transaction from the inventory card above.
- Identify** what type of transaction occurred on 9 November 2030.
- Suggest** how the transactions on 3 November 2030 and 4 November 2030 may be related. **Justify** your answer.
- Suggest** two possible reasons for the transaction on 16 November 2030.
- Record** Receipt 19 in the General Journal of The Good Oil.
- The inventory manager sent Memo 64 after the inventory count was completed. **Record** Memo 64 in the General Journal of The Good Oil.
- Calculate** Cost of Sales for Virgin Olive Oil for November 2030.
- Referring to your answer to part **g**, **state** two reasons why this may **not** be the figure reported as Cost of Goods Sold for November 2030.
- Calculate** Adjusted Gross Profit for Virgin Olive Oil for November 2030.



**Exercise 8.12****Source documents and inventory cards**

Hugh Glow owns Glare, a firm that sells light fittings and bedside lamps from a small shop in the city. Inventory is valued using FIFO, and physical inventory counts are carried out at the end of each quarter (every three months) to update the records.

On 1 February 2030, the firm had on hand the following inventory of bedside lamps:

Quantity	Cost	Total
4	\$20	\$80
7	\$25	\$175

The following transactions occurred during February 2030:



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**DOCUMENT A**



**Bright
Lights**

TAX INVOICE

ABN: 45 478 834 121

2a Buckley St,
Collingwood VIC 3066

Invoice: 519

Original

Terms: 10/14, n/30

Charge to: Glare
Block Arcade, Melbourne VIC 3000
ABN: 65 980 706 511

Date	Details	Qty	Unit Price \$	Total
Feb. 2	Bedside lamps	20	20	400
	GST			40
	Total			\$440

DOCUMENT B



Glare

TAX INVOICE

ABN: 65 980 706 511

Block Arcade
Melbourne VIC 3000

Invoice: 70

DUPLICATE

Terms: 5/7, n/30

Charge to: The Hilton Country Inn
ABN: 66 009 963 451

Date	Details	Qty	Unit Price \$	Total
Feb. 12	Bedside lamps	10	60	600
	GST			60
	Total			\$660

DOCUMENT C

	Glare	ABN: 65 980 706 511	Order form # G35
		Block Arcade Melbourne VIC 3000	DUPLICATE
Supplier: Bright Lights 2a Buckley St, Collingwood VIC 3066			
Please supply the following:			
Date	Details	Quantity	
Feb. 23	Bedside lamps	30	
Please deliver within 5 working days.			

DOCUMENT D

	Glare	MEMO 73
		28/2/30
<i>Inventory count revealed that there were 18 bedside lamps on hand</i>		

Required

- Referring to one Qualitative characteristic, **explain** why Glare should conduct an inventory count more often than every quarter.
- Record** the relevant transactions in the inventory card for bedside lamps.
- Referring to your answer to part **b**, **explain** your treatment of Document C.
- Record** the relevant transactions in the General Journal of Glare.
- Explain** the effect of Document A on the Balance Sheet of Glare as at 12 February 2030.
- State** the effect on the Accounting equation of Glare if Document D is **not** recorded.

**Exercise 8.13****Inventory and the General Ledger**

Matthew Farewell owns Matt's Mats, a store that specialises in selling welcome mats to carpet and general stores. The business uses the perpetual inventory system, and all inventory movements are recorded using the FIFO method of cost assignment.



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The inventory card for plain welcome mats showed the following transactions for April 2030:

Inventory Card										
Inventory item: Plain welcome mat Inventory code: PWM								Location: Shelf 7 Supplier: Coir Industries		
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
April 1	Balance							8	30	240
								50	40	2 000
2	Cr. Note 36	2	30	60				10	30	300
								50	40	2 000
9	Memo 71				3	30	90	7	30	210
								50	40	2 000
17	Inv. 35				7	30	210			
					8	40	320	42	40	1 680
25	Inv. B003	60	45	2 700				42	40	1 680
								60	45	2 700
30	Memo 72	3	45	135				42	40	1 680
								63	45	2 835

Additional information:

- Plain welcome mats are purchased on credit from Coir Industries and sold at a 100% mark-up.
- On 1 April 2030, the Inventory account had a balance of \$42 950.
- The only customer who buys plain welcome mats on credit is Account Receivable – Bullings, and on 1 April 2030, the account showed a balance of \$2 000.
- Memo 71 related to inventory withdrawn by the owner; Memo 72 related to the physical inventory count. These were the only memos written in April 2030.

Required

- Explain** the reason for the difference between the balance of the Inventory account and the balance shown in this inventory card as at 1 April 2030.
- Identify** the number of plain welcome mats detected by the physical inventory count on 30 April 2030.
- Referring to one Qualitative characteristic, **explain** why Memo 72 has valued the inventory items at \$45 each.
- Record** the following transactions in the General Journal of Matt's Mats:
 - Credit Note 36
 - Memo 71
 - Invoice B003
 - Memo 72.
- Assuming there were no other transactions, **show** how the following accounts would appear in the General Ledger of Matt's Mats after recording the information provided:
 - Inventory
 - Account Receivable – Bullings.
- Explain** the effect on the owner's equity of Matt's Mats as at 30 April 2030 if Memo 71 had **not** been recorded.



Exercise 8.14

Inventory valuation

Tahlia Powell has just started a business called RM16 Activewear selling exercise clothing and leisure wear. Inventory is purchased from an overseas supplier and stored in a local warehouse. Sales are made online, and items are mailed to customers directly from the warehouse. To manage these orders the business has invested heavily in technology to help it track its inventory. On advice from a friend, Tahlia has decided to use FIFO to value her inventory.

On 1 May 2030, the business purchased inventory worth \$59 400 (including GST). The tax invoice was made out in the name of RM16 Activewear, but Tahlia paid the supplier by making a funds transfer from her own personal bank account.

Required

- Referring to one Accounting assumption, **explain** why Tahlia should change the way she makes business payments.
- Record** the purchase of inventory in the General Journal of RM16 Activewear. (A narration is **not** required.)

Included in the inventory purchased on 1 May 2030 were 40 pairs of $\frac{3}{4}$ leggings (size 12, green with yellow stripe). As an introductory offer, the supplier charged \$25 per pair for the first 15 pairs, with the remainder at the normal price of \$28 per pair. Tahlia has decided to charge her customers \$60 per pair.

- Explain** whether it is ethical for RM16 Activewear to charge customers the same selling price for the items purchased on 1 May 2030.

During May 2030, RM16 Activewear purchased a further 20 pairs of leggings, but due to higher freight costs the supplier increased the price to \$30 per pair. Sales of leggings for May 2030 amounted to 43 pairs, but 2 pairs were returned by a customer due to faulty stitching. The faulty leggings were returned to the supplier.

An inventory count on 31 May 2030 found 17 pairs of leggings on hand. Tahlia has decided to use FIFO to value her inventory, but on the basis of differences in the packaging she thinks 3 of the pairs on hand were from the introductory offer, 5 were from the other inventory purchased on 1 May 2030, and the remainder were purchased after the price increase by the supplier.

- Model** the effect using of using different inventory valuations by calculating:
 - inventory on hand
 - Cost of Sales
 for leggings for May 2030 under both the FIFO and Identified Cost methods.
- Referring to your answer to part **d**, **explain** how the choice of inventory valuation methods affects the financial reports of RM16 Activewear for May 2030.
- Referring to any appropriate Qualitative characteristics, **discuss** which inventory valuation method RM16 Activewear should use.



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Chapter 9

Valuing and managing inventory



Learning intentions

After completing this chapter, you should be able to:

- **define** and **calculate** the cost of inventory
- **explain** the importance of Accounting assumptions and Qualitative characteristics in the valuation of inventory
- **define** and **identify** product and period costs
- **record** product and period costs in the inventory cards, General Journal and General Ledger
- **report** product and period costs in the Income Statement and Balance Sheet
- **define** and **apply** the Lower of Cost and Net Realisable Value (NRV) rule
- **state** possible reasons for an Inventory write-down
- **record** an Inventory write-down in the inventory cards, General Journal and General Ledger
- **report** an Inventory write-down in the Income Statement
- **state** the effect of an Inventory write-down on the Accounting equation
- **model** the effect on the Accounting equation and Accounting reports of using different inventory costing and valuation methods
- **calculate** and **analyse** Inventory Turnover
- **discuss** strategies to manage inventory.

Key terms

After completing this chapter, you should be familiar with the following terms:

- cost of inventory
- unit cost
- product cost
- period cost
- Net Realisable Value (NRV)
- Lower of 'Cost' and 'Net Realisable Value' rule
- Inventory write-down
- Inventory Turnover (ITO).



9.1 The 'cost' of inventory

How much is our inventory worth? It seems like a fairly obvious question for a business owner to ask, and the owner would expect the Accountant to be able to answer it with absolute certainty. After all, inventory is often the most significant asset a trading business will hold and, just as importantly, it is its main source of revenue. So how should we value our inventory?

Applying the Accounting assumptions and Qualitative characteristics, the answer seems easy enough. Under the Going concern assumption, it is assumed that the business will continue to operate into the future and, by extension, is not intending to liquidate (sell) all of its inventory immediately. This means that inventory does not need to be valued at what it would realise if sold today. Indeed, the selling price of inventory *does not* provide a *Faithful representation* of its value as there is no guarantee it can be sold at this estimated (and therefore biased) price.

Instead, inventory should be valued at its original purchase price, as this is *Verifiable* by reference to a source document and does provide a *Faithful representation* of the firm's inventory (because it is neutral and free from error and bias).

In essence then, inventory is valued by calculating its cost. In many cases, this will simply be the price charged by the supplier. But in some cases, there may be other costs associated with the purchase, and these must be accounted for in determining the cost price of the inventory.

Example

Sleepworld sell beds and bedroom furniture. On 18 October 2030, it purchased a new item of inventory, a king-size waterbed, and incurred the following costs:

Waterbed – supplier's price	\$800
Delivery to Sleepworld from supplier	100
GST on purchase and delivery	90
Total invoice price	\$990

The bed will have a selling price of \$1 200 (plus \$120 GST).

What is the 'cost' of the bed?

Let's start by eliminating the *selling price* as a possibility, because this figure is not the purchase price, is not *Verifiable* and will therefore not provide a *Faithful representation* of the value of the firm's inventory.

The *GST* charged by the supplier is not included as any GST on the purchase will be debited to the GST Clearing account and will simply reduce the liability the business owes to the ATO. It does not affect the economic resource represented by the inventory – the economic benefits to be gained when the inventory is sold.

By contrast, the *supplier's price* of \$800 is included as this is the key cost of purchasing the bed. However, we must also consider that without the *delivery charges* of \$100 the inventory would not be available to sell to customers; it is part of the purchase price and must be included in the **cost of inventory**. In fact, any costs incurred in order to bring the inventory into a condition and location ready for sale must be included in its cost price, and these may include:

- the supplier's price
- freight in (delivery to the firm from the supplier)
- modifications
- customs/import duties
- any other buying expenses.

cost of inventory

all costs incurred in order to bring inventory into a condition and location ready for sale



Adding together the supplier's price and the delivery charges, the cost price of the bed is **\$900** or, put another way, the bed is *worth* **\$900**.

The importance of an accurate calculation of cost price

Calculating an accurate cost price for inventory is important not only in terms of valuing inventory in the Balance Sheet, but also in terms of earning profit. Many businesses determine their selling price by applying some sort of mark-up, which is itself based on the cost price. For example, if a firm applies a 100% mark-up, its selling price will be twice its cost price. If the firm calculates the cost price of its inventory incorrectly, then it may set its selling prices too high, leading to a loss of sales volume, or too low, leading to an insufficient mark-up.

The use of the cost price in setting selling prices means that it is essential that the owner has accurate information relating to the cost price of each individual unit of inventory. This is sometimes known as its **unit cost**.

Study tip

Items such as advertising, wages and freight out (the cost of delivering inventory to customers) are excluded, as they are only incurred *after* the inventory is ready for sale.

unit cost

the cost price of each individual item/unit of inventory



Review questions 9.1

- 1 Referring to one Qualitative characteristic, other than *Relevance*, **explain** why inventory should be valued at its original purchase price.
- 2 **Explain** why valuing inventory at its selling price would breach *Faithful representation*.
- 3 **Explain** why GST is excluded from the calculation of the cost of inventory.
- 4 **Define** the term 'cost' as it is used in reference to inventory.
- 5 **State** three costs, other than the supplier's price, that may be included in the cost price of inventory.
- 6 **State** two reasons why it is important to have an accurate calculation of the cost price of inventory.



9.2 Product costs

product cost

a cost incurred in order to bring inventory into a condition and location ready for sale that can be allocated to individual units of inventory on a logical basis

Study tip

An absence of a logical basis to allocate costs would mean that a cost cannot be treated as a product cost and must be treated as a period cost (see Section 9.3).

Example

We have already established that the cost of inventory includes all costs incurred in order to bring inventory into a condition and location ready for sale. But to calculate the unit cost – the cost *per item* – it is also necessary that we are able to *allocate* those costs to each individual unit of inventory.

Including a particular expense in the calculation of the unit cost of an individual item of inventory requires that the cost fits the definition of a **product cost**; that is, a cost incurred in order to bring inventory into a condition and location ready for sale, which can be allocated to individual units of inventory on a logical basis.

This is, in effect, a two-way test.

First, the cost must be **incurred in order to bring the inventory into a condition and location ready for sale**. This would include costs such as the supplier's price, freight in and modifications. If this test is not met, the cost cannot be included in the unit cost of the inventory. Costs incurred only after the inventory is ready for sale (such as advertising and wages) would be excluded.

Second, once it has been established that the cost is incurred to get inventory ready for sale, we must determine if it **can be allocated to individual units of inventory on a logical basis**. This means the cost must be directly traceable to a particular line of inventory, and a per item cost can be calculated on some logical basis.

On 15 April 2030, MacEvoy Golf Gear purchased **15 golf bags** (code B1403) from Bear Industries (Invoice 361). The purchase invoice showed the following:

Golf bags – supplier's price	(15 bags @ \$190 each)	\$2 850
Cartage in		150
Total – before GST		3 000
GST (10%)		300
Total		\$3 300

Supplier's price is obviously a product cost: it is incurred to get the inventory ready for sale and can easily be allocated to individual units of inventory on a logical basis as it is already expressed as \$190 *per bag*.

Cartage in is also incurred to get inventory ready for sale, but it applies to the whole purchase. Can it be logically allocated?

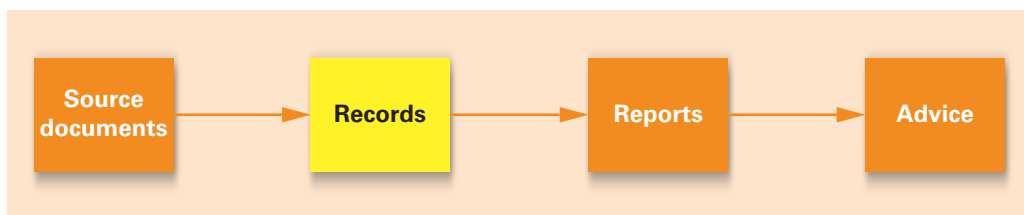
Given that the cartage applies *only to this purchase*, and **15 bags** were ordered, it is logical to divide the total cost (\$150) by the number of bags purchased (**15**) to calculate the cost of cartage in per bag (\$10). Thus, both **supplier's price** and **Cartage in** can be treated as product costs and included in the cost of each bag or 'product' (hence the term 'product' cost), giving a unit cost of \$200 *per bag*.

The unit cost (that is, the cost price of one golf bag) would thus be calculated as:

Supplier's price		\$190
Cartage in	(\$150/15 bags)	10
Unit cost of one bag		\$200



Recording: inventory cards



Because product costs are treated as part of the unit cost of each item of inventory, they are recorded as part of the value of each item of inventory in the inventory card and the Inventory account.

In the inventory card, the golf bags would be valued using a single product cost of **\$200 per bag** (\$190 supplier's price plus **\$10** Cartage in) as shown in Figure 9.1:

Figure 9.1 Inventory card: product costs

Inventory Card										
Inventory item: Golf bags					Inventory code: B1403					
Location: Storeroom					Supplier: Bear Industries					
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
April 1	Balance							10	180	1 800
15	Inv. 361	15	200	3 000				10	180	1 800
								15	200	3 000

The supplier's price and cartage in are not identified separately; they are now just part of the same cost price of **\$200** per bag.

Recording: General Journal

Just as the product costs are recorded as part of the value of inventory in the inventory card, so are they recorded together, as one figure, in the General Journal as shown in Figure 9.2:

Figure 9.2 General Journal: product costs

General Journal			
Date	Details	Debit \$	Credit \$
April 15	Inventory	3 000	
	GST Clearing	300	
	Account Payable – Bear Industries		3 300
	Credit purchase of 15 golf bags (B1403) from Bear Industries (Inv. 361)		

The amount debited to the **Inventory** account (\$3 000) includes both the total supplier's price (15 bags × \$190 per bag = \$2 850) and Cartage in (\$150). There is no separate ledger account for Cartage in, as this amount is included as part of the value of inventory recorded in the Inventory account. As with all credit purchases, the entire amount charged (\$3 300) would be credited to the account of the Account Payable – Bear Industries.

Recording: General Ledger

Posting the General Journal to the General Ledger would mean the accounts would appear as shown in Figure 9.3:

Figure 9.3 General Ledger: product costs

General Ledger Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 1	Balance	18 000			
15	Account Payable – Bear Industries	3 000			
GST Clearing (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
15	Account Payable – Bear Industries	300	April 1	Balance	2 500
Account Payable – Bear Industries (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			April 1	Balance	4 950
			15	Inventory / GST Clearing	3 300

If the purchase had been made with cash, the effect on the inventory card, the Inventory account and the GST Clearing account would be the same, but the transaction would be credited to Bank instead of Account Payable – Bear Industries.

Product costs from other suppliers

The treatment of product costs is the same even when a different supplier provides the service of delivering or modifying the inventory.

On 15 April 2030, MacEvoy Golf Gear purchased **15 golf bags** (code B1403) from Bear Industries (Invoice 361). The purchase invoice showed the following:

Golf bags – supplier's price	(15 bags @ \$190 each)	\$2 850
GST (10%)		285
Total		\$3 135

This inventory was delivered by Green Circle delivery company at a cost of **\$150** plus GST (EFT payment 30952).

Example

The two purchases are made from different suppliers, but both are for the same order of inventory and so can still be treated as product costs. Therefore, the cost price of each golf bag is still **\$200**, the only difference being the need to recognise that *two transactions* were involved in the purchase of the inventory. Figure 9.4 shows how this would be recorded in the inventory card:

Figure 9.4 Inventory card: product costs – more than one supplier

Inventory Card										
Inventory item: Golf bags					Location: Storeroom					
Inventory code: B1403					Supplier: Bear Industries					
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
April 1	Balance							10	180	1 800
15	Inv. 361/ EFT 30952	15	200	3 000				10	180	1 800
								15	200	3 000

In this example, the 'extra' product cost (Cartage in) was incurred on the day the inventory was purchased and so can be recorded as part of the same line in the inventory card, with the 'Details' column identifying both source documents: **Invoice 361** and **EFT 30952**.

The General Journal would record this transaction as shown in Figure 9.5:

Figure 9.5 General Journal: product costs – more than one supplier

General Journal			
Date	Details	Debit \$	Credit \$
April 15	Inventory	2 850	
	GST Clearing	285	
	Account Payable – Bear Industries		3 135
	Credit purchase of 15 golf bags (B1403) from Bear Industries (Inv. 361)		
April 15	Inventory	150	
	GST Clearing	15	
	Bank		165
	Cartage in of 15 golf bags (B1403) by Green Circle (EFT 30952)		

As a consequence of the different businesses supplying the bags and the cartage in, the General Ledger would appear as shown in Figure 9.6:

Figure 9.6 General Ledger: product costs – more than one supplier

General Ledger Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 1	Balance	18 000			
15	Account Payable – Bear Industries	2 850			
	Bank	150			

GST Clearing (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 15	Account Payable – Bear Industries	285	April 1	Balance	2 500
	Bank	15			

Account Payable – Bear Industries (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			April 1	Balance	4 950
			15	Inventory / GST Clearing	3 135

Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 1	Balance	9 800	April 15	Inventory / GST Clearing	165

Even though the inventory has been provided by two different suppliers and recorded in two separate entries, a total of **\$3 000** is still debited to the Inventory account to show the cost or value of the inventory purchased.

Product costs on different dates

Had the invoice for the purchase (from Bear Industries) and the payment for the delivery (to Green Circle) occurred on different dates (such as **April 15** and **April 17**), the transactions would be recorded separately in the inventory card, but the value of inventory would still end up as **\$200 per bag**, as is shown in Figure 9.7:

Figure 9.7 Inventory card: product costs – more than one supplier (different dates)

Inventory Card										
Inventory item: Golf bags					Inventory code: B1403					
Location: Storeroom					Supplier: Bear Industries					
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
April 1	Balance							10	180	1 800
15	Inv. 361	15	190	2 850				10	180	1 800
								15	190	2 850
17	EFT 30952	15	10	150				10	180	1 800
								15	200	3 000

The transaction on 17 April does not increase the quantity of inventory on hand, just its value (from \$190 to \$200 per unit).

(The General Journal and the General Ledger would simply appear as shown in Figures 9.5 and 9.6, but with different dates.)



Review questions 9.2

- 1 **Define** the term 'product cost'.
- 2 **Explain** how product costs are recorded in the inventory cards.
- 3 **Explain** how product costs are recorded in the Inventory account in the General Ledger.
- 4 **Explain** how the recording of product costs differs if more than one supplier is involved.



9.3 Period costs and other expenses

In the example in Section 9.2 concerning the golf bags, there was a logical basis on which to allocate Cartage in, so it could be expressed as cartage *per unit* and treated as a product cost. In other cases where there is no logical basis for allocation, the cost must be treated as a **period cost**: a cost incurred in order to bring inventory into a condition and location ready for sale, which cannot be allocated to individual units of inventory because there is no logical basis to do so.

period cost

a cost incurred in order to bring inventory into a condition and location ready for sale that cannot be allocated to individual units of inventory on a logical basis

On 23 May 2030, MacEvoy Golf Gear purchased golf clothing from Nickwell Clothing (Invoice 67). The purchase invoice showed the following:

Golf shirts – supplier's price	(20 shirts at \$23 each)	\$460
Golf hats – supplier's price	(10 hats at \$8 each)	80
Cartage in		50
Total – before GST		590
GST (10%)		59
Total		\$649

Example



Study tip

Period and product costs are both incurred to get inventory ready for sale, so this characteristic will not distinguish between the two. It will only distinguish between costs related to inventory and Other expenses (as explained later in this section).

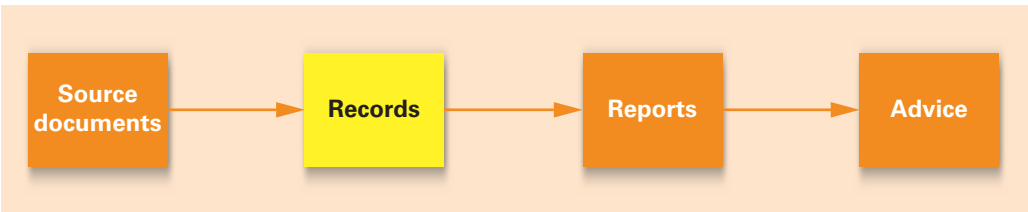
Study tip

If a cost can be allocated on a per unit basis, it should be treated as a product cost; only when this allocation is not possible should the item be treated as a period cost.

Although all of these costs are incurred to bring the inventory into a condition and location ready for sale, there is no logical basis to allocate the **Cartage in** of \$50 because there are two different lines of inventory ordered (golf shirts and golf hats). Both lines of inventory would incur cartage, but we cannot assume that the Cartage in would be the same *per shirt* as it is *per hat*, meaning we cannot divide the \$50 cost between the 30 items. As a result, we do not know the *per item* cost of the cartage.

In a case like this, we have no choice but to treat the **Cartage in** of \$50 as a period cost (an expense of the period) and value the **inventory** only at the price charged by the supplier, which is \$23 per shirt and \$8 per hat.

Recording: Inventory cards



A period cost is unable to be treated as part of the unit cost of each item of inventory, so it must be recorded and reported separately from the inventory. In terms of the inventory cards, the golf shirts would be valued only at their supplier’s price of \$23 each, and the golf hats at \$8 each, as shown in Figure 9.8:

Figure 9.8 Inventory cards: period costs

Inventory Card										
Inventory item: Golf Shirt, 40 inch, Yellow						Inventory code: NCS40iY				
Location: Storeroom						Supplier: Nickwell Clothing				
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
May 1	Balance							8	20	160
23	Inv. 67	20	23	460				8	20	160
								20	23	460

Inventory Card										
Inventory item: Golf Hats, Large						Inventory code: NCHL				
Location: Storeroom						Supplier: Nickwell Clothing				
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
May 1	Balance							20	7	140
23	Inv. 67	10	8	80				20	7	140
								10	8	80

Recording: General Journal

Because **Cartage in** is not recorded in the inventory cards as contributing to the value of the inventory, it must be recorded in its own separate ledger account. In fact, it is treated as a separate expense, *incurred in the Period in which the inventory is purchased* (hence the name ‘period’ cost). Figure 9.9 shows how the purchase would be recorded in the General Journal:

Figure 9.9 General Journal: period cost

General Journal			
Date	Details	Debit \$	Credit \$
May 23	Inventory	540	
	Cartage in	50	
	GST Clearing	59	
	Account Payable – Nickwell Clothing		649
	Credit purchase of 20 golf shirts (NCS40iY) and 10 golf hats (NCHL) from Nickwell Clothing (Inv. 67)		

This shows that of the **\$649** charged by the Account Payable, **\$540** was for the inventory, **\$50** was for the Cartage in expense and **\$59** was GST.

Recording: General Ledger

Because the Cartage in cannot be itemised, it cannot be included in the inventory figure and must be recorded as a separate expense. In the General Ledger there would be a separate ledger account for Cartage in, as is shown in Figure 9.10:

Figure 9.10 General Ledger: period cost

General Ledger Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
May 1	Balance	23 000			
23	Account Payable – Nickwell Clothing	540			

Cartage in (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
May 23	Account Payable – Nickwell Clothing	50			

GST Clearing (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
May 23	Account Payable – Nickwell Clothing	59	May 1	Balance	3 000

Account Payable – Nickwell Clothing (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			May 1	Balance	2 750
			23	Inventory / Cartage in / GST Clearing	649

Study tip

Strictly speaking, any cost that is not a product cost is a period cost (in the sense that it is incurred in the Period of purchase rather than when the product is sold).

Cost of Goods Sold and other expenses

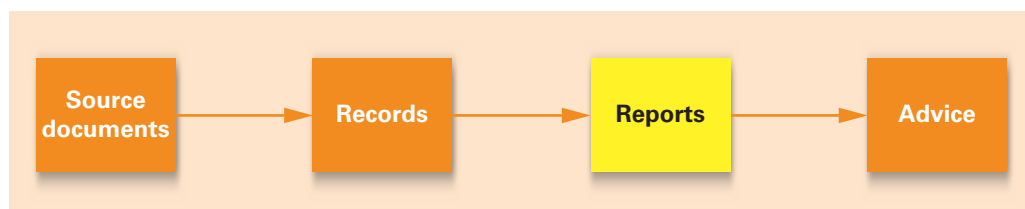
By definition, period costs cannot be allocated to individual items of inventory on a logical basis and so must be recorded in their own, separate account in the General Journal. Indeed, the very fact that such an account exists in the General Ledger is proof enough that it has already been recorded as a period cost.

Where such a cost is incurred to get inventory ready for sale, it will be reported under the 'Cost of Goods Sold' heading in the Income Statement.

However, costs that are *not* related to getting inventory ready for sale are simply classified as 'Other expenses', and for these expenses it does not matter whether there is a logical basis for allocation. The defining characteristic of an item reported as an 'Other expense' is that rather than being incurred to bring inventory into a condition and location *ready for sale*, it is incurred *after the sale*.

**Review questions 9.3**

- 1 **Define** the term 'period cost'.
- 2 Compared with product costs, **explain** one difference in the way period costs are recorded in:
 - the inventory card
 - the General Ledger.
- 3 **Explain** how a period cost can be identified in the General Ledger.
- 4 **Distinguish** between an expense reported under 'Cost of Goods Sold' and an expense reported under 'Other expenses' in the Income Statement.

9.4 Reporting product and period costs

As we have noted, treating costs as product costs means *all* the costs incurred to get inventory ready for sale are allocated directly to the items of inventory themselves. If the inventory is unsold, the product costs are included in the value of the asset, Inventory, and when the inventory is sold, the product costs become part of the Cost of Sales figure. In fact, product costs are recognised as being incurred, and their benefit consumed, in the Period *when inventory is sold*.

Period costs, on the other hand, are recorded separately in the General Ledger and reported under the heading 'Cost of Goods Sold' in the Income Statement. Further, the entire amount is recognised as being incurred in the Period when the *inventory is purchased*, regardless of whether the inventory is sold or not.

Unless all the inventory is sold, period costing will lead to a higher Cost of Goods Sold in the Period when inventory is purchased (resulting in a lower Gross Profit and Net Profit and therefore a lower owner's equity) and a lower value of inventory on hand (and therefore lower assets). The exact amount by which these items will be different can be calculated by multiplying the period cost by the fraction of items of inventory remaining unsold.

During October 2030, HiFi Central imported 10 sets of wireless headphones for **\$120** (plus GST) each, incurring **\$350** (plus GST) in **modification** costs. Four sets of headphones were sold in October 2030 for **\$250** (plus GST) each.

Example



Product costing

Assuming the modifications were (correctly) treated as product costs, the cost of one set of headphones would be:

	Supplier's price	\$120
plus	Modifications (\$350/10 sets)	35
	Unit cost of one set of headphones	\$155

Figure 9.11 shows how the Income Statement (extract) would appear:

Figure 9.11 Income Statement: product costs

HIFI CENTRAL Income Statement (extract) for October 2030		
	\$	\$
Revenue		
Sales (4 sets × \$250)		1 000
Less Cost of Goods Sold		
Cost of Sales (4 sets × \$155)		620
Gross Profit		380

Product costing recognises the expense as being incurred only in the Period when the *inventory is sold*, and because only 4 out of 10 sets have been sold, only 4/10 of the **\$350** spent on modifications has been recognised as being incurred in October 2030. This is included in the **Cost of Sales** figure of **\$620**.

The remaining 6/10 of the modifications cost – yet to be incurred because the inventory has not yet sold – is included in the value of inventory on hand in the Balance Sheet at the end of October 2030, as is shown in Figure 9.12:

Figure 9.12 Balance Sheet: product costs

HIFI CENTRAL Balance Sheet (extract) as at 31 October 2030	
	\$
Current Assets	
Inventory (6 sets × \$155)	930

Period costing

Assuming the same data, but using period costing, would produce very different reports. Period costing would not allocate the modifications to each set of headphones and hence value them at only their supplier's price of \$120 each. However, it would recognise the entire \$350 spent on modifications as incurred in the Period when the inventory was purchased. That is, the entire \$350 would be reported as an expense for October 2030, so the Income Statement (extract) would appear as is shown in Figure 9.13:

Figure 9.13 Income Statement: period costs

HIFI CENTRAL Income Statement (extract) for October 2030		
	\$	\$
Revenue		
Sales (4 sets × \$250)		1 000
Less Cost of Goods Sold		
Cost of Sales (4 sets × \$120)	480	
Modifications	350	830
Gross Profit		170

Study tip

If an item is listed in the Trial Balance, it means it has its own ledger account and therefore must have been recorded as a period cost.

Under period costing, the entire cost of the modifications (\$350) has been recognised as an expense, even though six remain unsold. Put another way, only 4/10 of the sets have been sold, but 10/10 of the \$350 has been recognised as being incurred as an expense.

The six remaining (unsold) sets will be valued only at their supplier's price of \$120 each and thus would be shown in the Balance Sheet as shown in Figure 9.14:

Figure 9.14 Balance Sheet: period costs

HIFI CENTRAL Balance Sheet (extract) as at 31 October 2030	
	\$
Current Assets	
Inventory (6 sets × \$120)	720

Figure 9.15 shows a comparison of product and period costing:

Figure 9.15 Product versus period costs

	Product costing		Period costing		
Income Statement		\$		\$	\$
Sales	4 units @ \$250	1 000	4 units @ \$250		1 000
Cost of Goods Sold					
Cost of Sales	4 units @ \$155*	620	4 units @ \$120	480	
Plus Period costs			Modifications	350	830
Gross Profit		380			170
Balance Sheet					
Inventory	6 units @ \$155*	930	6 units @ \$120		720

* Includes *part* of \$350 cost of modifications i.e. \$35 per set

In this example, Cost of Goods Sold under period costing (\$830) is higher than product costing (\$620) because it includes all of the modification costs. This means Gross Profit is \$210 lower ($\$210 = 6/10 \text{ unsold} \times \$350 \text{ modifications}$).

At the same time, Inventory (and thus assets) under period costing (\$720) is lower than product costing (\$930) by the same amount, because the 6 remaining headphone sets will only be valued at their supplier's price of \$120.

Summary

If a cost is incurred to get inventory ready for sale and can be allocated to individual units on a logical basis, then it is a product cost. Except where the cost is insignificant (see below), treating a product cost as a period cost leads to the omission of information that would be useful for decision-making and thus breaches *Relevance*. Where there is *no* logical basis on which to allocate the cost to individual units, period costing must be used. In this situation, treating a period cost as a product cost would be misleading and could result in poor decision-making.

Equally, period costing *may* be used if the cost concerned can be allocated but is *too small* to affect decision-making; that is, it is immaterial. Here we are talking about costs that would otherwise be, correctly, treated as product costs, but due to their insignificance may be treated as period costs. The insignificance of such items means that it should not really matter how they are treated, because, by definition, they will not affect decision-making.

Period costing recognises the entire cost as an expense in the Period when the inventory is *purchased*, whereas product costing includes the cost as an expense only in the Period in which the inventory is *sold*. As a result, unless all inventory is sold, and this is an important caveat, period costing will lead to a higher Cost of Goods Sold and thus a lower profit and owner's equity, and a lower Inventory and assets.

Study tip

Period costing will lead to a higher COGS in the period when inventory is purchased but a lower COGS in the following period. However, if all inventory is sold, both methods will produce the same figures.



Review questions 9.4

- 1 Compared with product costs, **explain** one difference in the way period costs are reported in the Income Statement.
- 2 **Explain** the effect on profit if period costing is used instead of product costing.
- 3 **Explain** the effect on the Balance Sheet if period costing is used instead of product costing.
- 4 **State** two circumstances in which it is appropriate to use period costing.
- 5 Referring to one Qualitative characteristic, **explain** why the correct inventory valuation method should be applied.



9.5 The Lower of 'Cost' and 'Net Realisable Value' (NRV) rule

As we have noted, inventory is usually valued at its **'Cost'** – its original purchase price plus any costs incurred to get it ready for sale – as this valuation upholds both *Verifiability* (it can be checked against the purchase document) and *Faithful representation* (as the valuation is complete, free from error and neutral or without bias).

However, there may be some situations when the **Cost** no longer provides a *Faithful representation* of the value of inventory. For instance, inventory that is damaged may no longer be worth its original purchase price.

While continuing to value this inventory at its **Cost** would uphold *Verifiability*, it would actually breach *Faithful representation* as the original purchase price would not account for the damage to the inventory, meaning it would no longer provide a valuation that was complete or free from error. In fact, it would actually *overstate* the value of inventory and assets as a whole, and overstate profit by not recognising the loss (caused by the damage) that is probable on the sale of the inventory. This lack of *Faithful representation* might also be deemed to be unethical.

Ethical considerations

Net Realisable Value (NRV)

the estimated selling price of inventory minus any costs involved in its selling, marketing or distribution

Net Realisable Value (NRV)

In cases such as this, where the **Cost** no longer provides a *Faithful representation*, it is better to use an estimate based on the selling price to value the inventory. This estimate is called **Net Realisable Value (NRV)** and is calculated by estimating the selling price of the inventory (its 'realisable value', or what it would be worth if it was sold today) and then deducting any direct selling expenses (costs that would be incurred in its selling, marketing or distribution).

Net Realisable Value (NRV) = Estimated selling price less direct selling expenses

Whereas the **Cost** of the inventory represents its value at the time it was purchased, **Net Realisable Value** represents what the inventory would be worth if it was sold today, less what it would cost to carry out the selling.

Lower of 'Cost' and 'Net Realisable Value' rule

If the **Cost** remains lower than the **Net Realisable Value**, as it will in most cases, it indicates that the inventory is still expected to be sold at a profit, and therefore that the cost price continues to provide a *Faithful representation* of the value of inventory. In this situation, no further action is required in terms of the Accounting records (until a sale or some other transaction occurs).

However, if the **Net Realisable Value** should fall below the **Cost**, it indicates that the inventory is not expected to be sold at a profit because something has happened to either the inventory or the market (see below). This means the **Cost** no longer provides a *Faithful representation* of the value of inventory, and the **Net Realisable Value** should be used instead.

In general terms, inventory is valued at either its **Cost** (original purchase price) or its **Net Realisable Value**, using whichever valuation is *lower*. This is known as the **Lower of 'Cost' and 'Net Realisable Value' rule**.

Lower of 'Cost' and 'Net Realisable Value' rule

inventory should be valued at either its Cost, or its Net Realisable Value, using whichever value is lower

Reasons why NRV may be lower than 'Cost'

In most cases, **Cost** is lower than **Net Realisable Value** because the business wants to sell its inventory at a profit. In these cases, the business will continue to value its inventory at its **Cost** (upholding both *Verifiability* and *Faithful representation*).

However, there are a number of reasons why the **Net Realisable Value** may fall below the **Cost**, including:

- **damage or physical deterioration**
Inventory that is damaged, or shop soiled, may have to be sold for less than its original purchase price.
 - **a purposeful decrease in selling price**
Some inventory may be sold for less than its cost price as a deliberate marketing ploy to attract new customers or force a competitor out of the market.
 - **a decrease in demand**
Inventory that is out of season or no longer in fashion may not be able to be sold for what it was once worth. This applies particularly to clothes, sporting equipment and fads.
 - **obsolescence**
Items that are technically obsolete, superseded by a new model or, in the case of food items, out of date will be difficult to sell for more than their cost price.
- If any of these situations occur, inventory must be revalued: *from its Cost to its Net Realisable Value* by making an Inventory write-down.



Review questions 9.5

- 1 Referring to two Qualitative characteristics, **explain** why inventory is usually valued at its cost price.
- 2 **Explain** the circumstances under which valuing inventory at its cost price may undermine *Faithful representation*.
- 3 **Explain** the effect on the Accounting equation of not revaluing damaged inventory.
- 4 **Define** the term 'Net Realisable Value'.
- 5 Referring to one Qualitative characteristic, **explain** why inventory should be valued according to the Lower of 'Cost' and 'Net Realisable Value' rule.
- 6 **Explain** why Cost is usually lower than Net Realisable Value.
- 7 **State** four reasons why Net Realisable Value may fall below Cost.





9.6 Inventory write-down

Inventory write-down

the expense incurred when the Net Realisable Value (NRV) of an item of inventory falls below its Cost or original purchase price

Example

As at 1 August 2030, Dave's Discount Appliance Store had on hand 6 'Clarity' dishwashers that it had purchased for \$500 (plus GST) each. These dishwashers had a selling price of \$650 (plus GST) each.

On 31 August 2030, the supplier released a new dishwasher model – the 'Clarity Plus'. In response, Dave decided to reduce the selling price of the remaining 'Clarity' dishwashers to \$550 (plus GST) each and spend \$720 (plus GST) on a special advertising campaign to promote the sale (Memo 31).



Video 9.1

Recording and inventory write-down

When the 'Clarity' dishwashers were purchased, each was valued at its Cost of \$500 as this amount was not only Verifiable but also lower than its selling price (which in this case is the same as its NRV) and thus provided a Faithful representation of each dishwasher's value. As a consequence, as at 1 August 2030 the dishwashers would be valued in the inventory card at \$500 each.

Calculating the NRV

Following the release of the new 'Clarity Plus', the Cost of the old 'Clarity' dishwashers has not changed, but their NRV has as they can no longer be sold for \$650. Had this been the only change, an Inventory write-down would not be required, as their Cost of \$500 would still be lower than their NRV of \$550.

However, in this example the new estimated selling price of \$550 is only likely to be 'realised' after the business spends \$720 on a campaign to advertise the 6 dishwashers still on hand.

These changed market conditions mean the NRV of the 'Clarity' dishwashers must be recalculated as at 31 August 2030 as shown in Figure 9.16:

Figure 9.16 Calculation: Net Realisable Value

$$\begin{aligned}
 \text{Net Realisable Value (NRV)} &= \text{Estimated selling price less direct selling expenses} \\
 &= \$550 \text{ less } \$120 * \\
 &\quad *(\text{Advertising } \$720 / 6 \text{ dishwashers on hand}) \\
 &= \$430 \text{ per dishwasher}
 \end{aligned}$$

As a result of the release of the new model, the old models are now less in demand and have an NRV of only \$430. This must be compared against their Cost to determine if an Inventory write-down is necessary.

Study tip

GST, as it applies to either the selling price or the cost price, is not a factor to be considered in the valuation of inventory as it affects GST Clearing, not inventory or profit. Cost is calculated with the GST excluded, and so is NRV.

Calculating the Inventory write-down

Because the **NRV** of each dishwasher (\$430) has fallen below its **Cost** (\$500), the **cost price** no longer provides a *Faithful representation* of the value of the inventory, so each dishwasher must be written down (from its **Cost**, to its **NRV**) via an **Inventory write-down**.

The amount of the **Inventory write-down** is calculated by comparing the **Cost** and **NRV** as shown in Figure 9.17:

Figure 9.17 Calculation: Inventory write-down

$$\begin{aligned}\text{Inventory write-down} &= \text{Cost less Net Realisable Value} \\ &= \$500 \text{ less } \$430 \\ &= \$70 \text{ per dishwasher}\end{aligned}$$

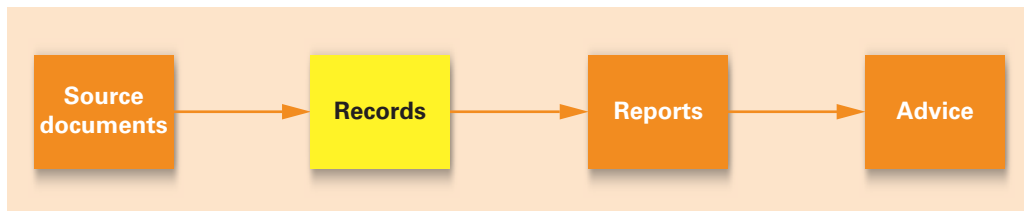
Study tip

If the Inventory write-down figure turns out to be negative, the **NRV** is greater than the **Cost**, so an Inventory write-down is not necessary!

Given that there are six dishwashers still on hand, each of which must be written down by \$70, the total Inventory write-down will be \$420 (6 × \$70).

(This rule must be applied on an individual basis, because for most lines of inventory their **Cost** is likely to remain lower than their **NRV**. These items will need to remain valued at their cost price, which continues to provide a valuation that is both *Verifiable* and a *Faithful representation*.)

Recording: Inventory write-down



At the time of purchase, inventory is recorded in the inventory card at its **Cost**. If the inventory must be written down to its **NRV**, then both the inventory card and the Inventory account in the General Ledger must be adjusted by an **Inventory write-down**.

Recording: Inventory card

The inventory card for dishwashers must record the write-down *per item*, as shown in Figure 9.18:

Figure 9.18 Inventory card: Inventory write-down

Inventory Card										
Inventory item: Dishwasher, Clarity							Location: Row 5, Bay 2			
Inventory code: CD3000							Supplier: F&P			
Date	Source Document	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Aug. 1	Balance							6	500	3 000
31	Memo 31				6	70	420	6	430	2 580

Notice that even though this entry is recorded in the OUT column of the inventory card, no units of inventory are actually leaving the business; inventory has been reduced in *value*, not in *quantity*. Each dishwasher is written down by \$70, leaving each one valued at its NRV of \$430 (\$500 cost price less \$70 Inventory write-down).

Recording: General Journal and General Ledger

In the General Journal, *Inventory write-down* is debited by \$420 to recognise the expense: the reduction in assets (Inventory), which decreases owner’s equity. At the same time, the asset *Inventory* is credited to recognise that the value of the asset has decreased. Figure 9.19 shows how this would be recorded in the General Journal:

Figure 9.19 General Journal: Inventory write-down

General Journal			
Date	Details	Debit \$	Credit \$
Aug. 31	Inventory write-down	420	
	Inventory		420
	Write down of 6 dishwashers (Clarity) to NRV due to release of new model (Memo 31)		

Study tip

The amount used in the General Journal entry is the amount of the *Inventory write-down*, not the new balance of inventory on hand.

This General Journal entry would be posted to the General Ledger as shown in Figure 9.20:

Figure 9.20 General Ledger: Inventory write-down

General Ledger Inventory* (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 1	Balance	140 000	Aug. 3	Cost of Sales	47 600
19	Account Payable	95 000	8	Drawings	500
22	Cost of Sales	1 000	10	Advertising	2 600
			16	Cost of Sales	62 400
			22	Account Payable	600
			31	Inventory write-down	420

Inventory write-down (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 31	Inventory	420			

*Other probable entries have been added to show a more complete Inventory account

The inventory card and the Inventory account in the General Ledger would now show all inventory at the Lower of ‘Cost’ and ‘NRV’, ensuring that the reports provide a *Faithful representation* of the value of inventory.

In the process, *Relevance* would also be upheld, as the information in the reports would be more useful for decision-making.

Effect on the Accounting equation

In terms of the Accounting equation, the overall effect of an Inventory write-down is:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Inventory)	420
Liabilities	No effect	
Owner's equity	Decrease (Inventory write-down expense decreases Profit)	420



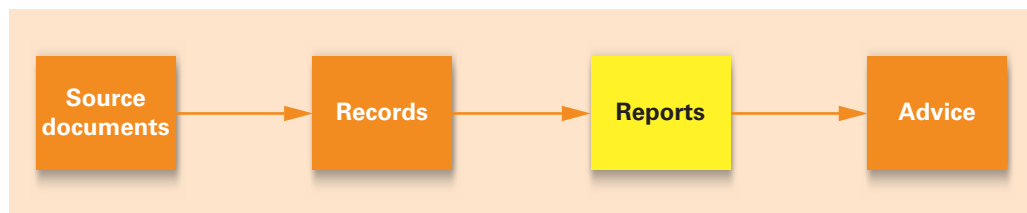
Review questions 9.6

- 1 Define** the term 'Inventory write-down'.
- Referring to one Qualitative characteristic, **explain** why an Inventory write-down may be necessary.
- 3 Show** how the amount of an Inventory write-down is calculated.
- 4 Explain** why the Lower of 'Cost' and 'Net Realisable Value' rule should be applied to individual inventory lines.
- 5 Show** the General Journal entries necessary to record an Inventory write-down.
- 6 Explain** why an Inventory write-down is recorded in the OUT column of the inventory card.
- 7 State** the effect of an Inventory write-down on the Accounting equation.





9.7 Reporting an Inventory write-down



Study tip

An Inventory write-down is reported in the same place as an inventory loss or gain.

Because **Inventory write-down** is not a cost involved in getting the inventory into a condition or location ready for sale, it should not be classified under Cost of Goods Sold: it will not affect the mark-up on inventory that is reflected in Gross Profit.

However, it is *related* to inventory and will affect the overall margin that the business will earn from the sale of inventory. In this way, an Inventory write-down has the same effect as an inventory loss or gain, so it is reported as a deduction from Gross Profit to determine Adjusted Gross Profit.

Figure 9.21 shows how an Inventory write-down would appear in the Income Statement:

Figure 9.21 Income Statement: Inventory write-down

DAVE'S DISCOUNT APPLIANCE STORE Income Statement for August 2030		
	\$	\$
Revenue		
Sales		165 000
Less Cost of Goods Sold		
Cost of Sales	109 000	
Customs duty	1 000	110 000
Gross Profit		55 000
Less Inventory write-down		420
Adjusted Gross Profit		54 580

In the Balance Sheet, the balance of the Inventory account would be reported as would normally be the case, but its value would reflect the fact that all inventory was valued at the Lower of 'Cost' and 'Net Realisable Value'.

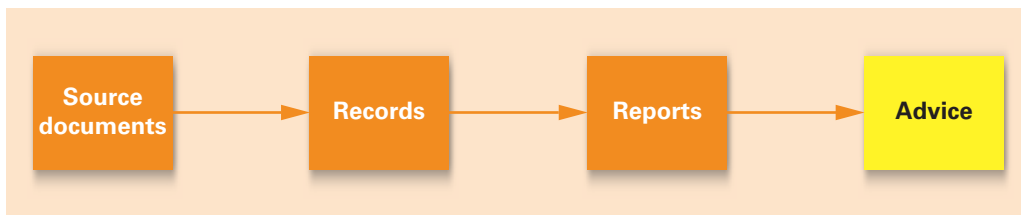


Review questions 9.7

- 1 Explain** why Inventory write-down is **not** reported as part of Cost of Goods Sold in the Income Statement.
- 2 Explain** how an Inventory write-down affects Adjusted Gross Profit.



9.8 Inventory Turnover (ITO)



As a firm's main source of revenue, inventory is also its main source of cash inflows, but before cash can be collected from cash sales or Accounts Receivable, the inventory must first be sold. **Inventory Turnover (ITO)** calculates the average number of days taken to sell inventory (or turn inventory into sales) and therefore assesses how effectively the firm has managed its inventory holdings.

Inventory Turnover is calculated as shown in Figure 9.22:

Figure 9.22 Formula: Inventory Turnover

$$\begin{aligned}\text{Inventory Turnover (ITO)} &= \frac{\text{Average inventory}}{\text{Cost of Goods Sold}} \times 365 \\ &= \text{Average number of days}\end{aligned}$$

Like Accounts Payable Turnover and Accounts Receivable Turnover, Inventory Turnover uses the average balance of inventory (derived by adding the starting and ending balances, and then dividing by 2) to reflect the inventory on hand carried throughout the period, while multiplying by 365 converts the turnover into days.

Fast Inventory Turnover, as measured by low days, means that, on average, inventory is sold quickly. This will enhance the firm's ability to earn profit and generate cash from the sale of inventory.

Inventory Turnover (ITO)

the average number of days it takes for a business to sell its inventory or convert its inventory into sales

Markwell Mirrors has provided the following information relating to its trading activities for 2030:

Cost of Goods Sold	\$450 000
Inventory as at 1 January 2030	\$56 000
Inventory as at 31 December 2030	\$58 000
Inventory Turnover for 2029	41 days

Example

Calculating Inventory Turnover

The Inventory Turnover for Markwell Mirrors for 2030 would be calculated as shown in Figure 9.23:

Figure 9.23 Calculation: Inventory Turnover

$$\begin{aligned}\text{Inventory Turnover (ITO)} &= \frac{(56\,000 + 58\,000)/2}{450\,000} \times 365 \\ &= \frac{57\,000}{450\,000} \times 365 \\ &= \mathbf{46^* \text{ days (46.2 rounded down to the nearest day)}}$$

Study tip

Changes in ITO should be described as faster or slower than previous periods, than budgeted or than similar businesses.

This ITO indicates that in 2030 inventory was sold on average every 46 days.

Analysing Inventory Turnover

This Inventory Turnover should be assessed against 'benchmarks' or 'standards' including:

- last year (performance in *previous periods*)
- expected (*budgeted* performance)
- its competitors (performance of *similar businesses*, sometimes reflected in an *industry average*).

This allows the owner to assess whether the business is selling its inventory *faster* or *slower* than previously, expected or its competitors.

In this example, Markwell Mirrors' Inventory Turnover of 46 days in 2030 is actually 5 days slower than the 41 days taken in 2029, indicating a worsening in its management of inventory. This may have negative consequences for sales and profit, but also for liquidity, with slower sales leading to slower cash inflows.

Fast Inventory Turnover

In general, fast Inventory Turnover is beneficial for profitability and liquidity because it indicates higher sales, leading to higher profit and more cash on hand (provided collection mechanisms are effective). It could also indicate effective inventory management techniques that are leading to inventory moving quickly through the store, reducing the chances of inventory losses and/or write-downs.

However, it is also possible that Inventory Turnover could be *too fast* as it may indicate that the selling price is too low, and this would be a loss of potential revenue and profit. Alternatively, it may be because the firm is holding too little inventory. If this is the case, costs such as delivery may be higher (because deliveries are more frequent) and the business could lose the possibility of earning discounts for buying in bulk.

Slow Inventory Turnover

Inventory Turnover that is too slow (that is, a high number of days) usually has negative consequences for both cash and profit.

If slower Inventory Turnover is caused by a decrease in sales, its immediate effect will be a negative effect on profit. Further, it may lead to worsening liquidity, as cash is collected slower (as cash sales or cash received from Accounts Receivable) and is therefore less readily available to meet short-term debts as they fall due.

Even if slower Inventory Turnover is caused by an increase in inventory on hand, it still puts pressure on cash flows, as cash has already been spent or is owed in greater amounts (and in need of repayment) to Accounts Payable. Further, an increased amount of inventory, which is not selling, becomes more susceptible to inventory loss and Inventory write-down, causing expenses that decrease profit.

Other considerations

Any assessment of Inventory Turnover must consider the *nature of the goods sold*. Goods that are perishable (such as fresh produce) or susceptible to changes in fashion (like clothing) should have a fast Inventory Turnover so they are not subject to inventory loss or Inventory write-down issues. Relatively cheap items should also be sold much faster than more expensive items, such as luxury cars.

Further, because it only measures the *average* time taken to sell inventory, decisions should not be made on an assessment of Inventory Turnover alone. It is important that the owner also analyses the inventory cards, so that they have detailed information about the speed at which *specific lines of inventory* are selling, so that appropriate decisions can be made.

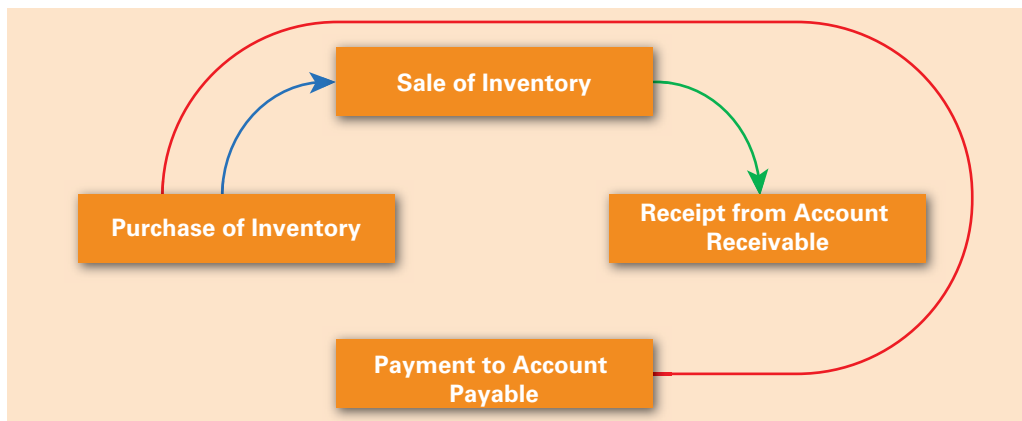
Finally, it must be remembered that Inventory Turnover is a *historical measure*: it describes what has already happened and does not guarantee what will occur in the future.

Inventory Turnover, Accounts Receivable Turnover and Accounts Payable Turnover

As noted above, Inventory Turnover is a key consideration in an assessment of liquidity. In the case of cash sales, the number of days taken to sell inventory will also be the number of days taken to generate cash. However, for credit sales the business will have to wait until the inventory is sold, and then wait again until cash is received from Accounts Receivable. This in turn has consequences for the firm's ability to make payments to its Accounts Payable, with cash not available until inventory is sold and cash is collected.

Figure 9.24 shows the relationship between **Inventory Turnover**, **Accounts Receivable Turnover** and **Accounts Payable Turnover** in what is sometimes called the 'cash cycle':

Figure 9.24 Cash cycle



The days between the purchase of inventory and sale of inventory are measured by the **Inventory Turnover**, the days between the sale of inventory and the receipt from the Accounts Receivable are measured by the **Accounts Receivable Turnover**, and the days between the purchase of the inventory and the payment to the Accounts Payable are measured by the **Accounts Payable Turnover**.

In most cases, a business will want its **ITO** and **ARTO** to be *fast* whereas it will want its **APTO** to be as *slow* as possible (without exceeding credit terms). In terms of cash, there may be a benefit in selling for cash and buying on credit, as it makes it more likely that cash will be generated from sales before Accounts Payable must be paid. However, there are significant advantages to selling on credit, and provided the business manages its inventory, Accounts Receivable and Accounts Payable effectively, the cash cycle can be managed to ensure debts are met on time.

Example

Markwell Mirrors has provided the following summary of its financial indicators for 2030:

Indicator	2030	Benchmark
Inventory Turnover	46 days	2029: 41 days
Accounts Receivable Turnover	28 days	Credit terms offered to customers: 30 days
Accounts Payable Turnover	64 days	Credit terms offered by suppliers: 60 days

In this example, it takes 46 days (ITO) to sell the inventory, and then a further 28 days (ARTO) to receive cash from Accounts Receivable, meaning it takes 74 days (46 days + 28 days) to generate cash. This is perhaps the reason why it is taking 64 days (APTO) to pay Accounts Payable. Given the fact that cash is received from Accounts Receivable within the 30-day credit terms, it is the ITO that is most in need of attention to ensure cash can be generated to meet Accounts Payable in time.

Managing inventory

Given its importance to both profit and liquidity, the owner may consider implementing some, or all, of the following strategies to manage its inventory:

- Maintain an appropriate inventory mix**
What is ‘appropriate’ may change from season to season, or as tastes and preferences change, so the owner must pay close attention to which inventory is selling. Inventory lines that are selling well should be expanded, while those that are not should be reduced or even discontinued. ‘Appropriate’ inventory must also meet community and legal standards, meaning this decision has ethical and financial dimensions. In the longer term, inventory that is dangerous, outside the bounds of accepted community standards or simply poor quality and/or not ‘fit for the purpose intended’ will simply not sell.
- Promote the sale of complementary goods**
Complementary goods are add-on sales that support the original item sold. For example, a business selling tents may also sell sleeping bags, inflatable mattresses

Ethical considerations



and gas lights to encourage more sales. As part of its assessment of its inventory mix, the business should consider what 'extra sales' it can generate from inventory that is related in some way.

- **Ensure inventory is up to date**

Sales of some inventory lines will be heavily affected by changes in fashion or technology. In order to maintain sales, inventory of these items must be the most current version available: older and out-of-date versions should be discounted for quick sale.

- **Rotate inventory**

The positioning of inventory in the store can have a significant impact on whether it sells or simply sits on the shelf. Particularly for perishable items, older products should be moved to the front, so they are taken first: this will minimise inventory loss or write-down issues. At other times, moving an entire inventory line to another location within the store may boost its sales.

- **Determine an appropriate level of inventory on hand**

Carrying too little inventory could mean a loss of sales, so inventory levels should be sufficient to meet demand. However, they should not be so high that additional storage costs or inventory write-down issues (such as damage or technical obsolescence) ensue. Setting a target level for inventory also assists in identifying when to reorder.

- **Market strategically and effectively (and ethically)**

Strategies like advertising – in the right way, to the right customers – will hopefully lead to increased sales and faster Inventory Turnover for all lines of inventory, or for a particular line (which may then attract customers and entice them to buy other items too).

Loyal customers are less sensitive to changes in price and less likely to switch to a competitor. Some studies indicate that attracting new customers costs more than five times as much as retaining existing customers, but increasing retention rates and repeat sales can increase profits substantially.

Having said that, marketing must be ethical and provide an honest representation of the goods, their qualities and their uses. Making promises that items of inventory cannot fulfil is dishonest and, in certain cases, illegal and will lead to sales returns and could even result in legal sanctions.

- **Appoint an Inventory Manager**

An Inventory Manager has responsibility for record keeping including checking the documents to ensure goods ordered and charged for are delivered, conducting a physical count and ensuring inventory-handling procedures are followed and are effective.

Much of the information referred to above may be *non-financial* in nature and based on the owner's assessment of customers, trends and the market such as consumer preferences, community attitudes and even trends in the weather. (Umbrellas are more likely to sell in winter than during the heat of summer.) Taken together, financial and non-financial information is crucial in determining what to sell, when and in what quantities.

Ethical considerations



Review questions 9.8

- 1 **State** what is measured by Inventory Turnover (ITO).
- 2 **Show** the formula to calculate Inventory Turnover.
- 3 **List** three benchmarks that can be used to assess Inventory Turnover.
- 4 **Explain** why fast Inventory Turnover is beneficial for:
 - profitability
 - liquidity.
- 5 **Explain** the disadvantages of Inventory Turnover being:
 - too fast
 - too slow.
- 6 **State** two limitations of using Inventory Turnover to assess inventory management.
- 7 **Explain** the role of inventory cards in an analysis of Inventory Turnover.
- 8 **Explain** the importance of Inventory Turnover and Accounts Receivable Turnover in managing Accounts Payable Turnover.
- 9 **List** the strategies that businesses can use to manage their inventory.



Where have we been?

- Inventory should be valued at its original purchase price, as this is *Verifiable* by reference to a source document and provides a *Faithful representation* of its value.
- The cost of inventory includes all costs incurred in order to bring the inventory into a condition and location ready for sale.
- Product costs can be allocated to individual units of inventory on a logical basis; period costs cannot.
- Product costs are recorded as increases to the unit cost of inventory in the inventory cards; period costs are recorded separately in the ledger.
- Product costs are recognised as being incurred only in the Period in which inventory is sold; period costs are recognised as being incurred in the Period in which the inventory is purchased.
- Compared to product costing, period costing will lead to a higher Cost of Goods Sold and lower profit in the Income Statement, and lower assets and owner's equity in the Balance Sheet.
- To ensure *Faithful representation*, inventory must be valued at the Lower of 'Cost' and 'Net Realisable Value (NRV)'.
- NRV is the estimated selling price of the inventory less any costs involved in its selling, marketing or distribution.
- Inventory write-down is calculated by deducting NRV from Cost.
- The overall effect of an Inventory write-down is to decrease both assets and owner's equity.
- Inventory Turnover (ITO) calculates the average number of days taken to sell inventory.
- Fast ITO is beneficial for profit and liquidity, provided it is not too fast.
- Slow ITO can have negative consequences for profit and liquidity.
- ITO, ARTO and APTO are related in the cash cycle.
- There are many strategies that businesses can use to manage their inventory.

Exercises

Please note: asterisks indicate that an answer for that question is available in the Selected Answers section at the end of this book.



Exercise 9.1

Cost of inventory

On 1 March 2030, El Fresco Living had 25 barbecues on hand worth \$85 each. On 4 March 2030, the business purchased 40 barbecues at a cost of \$80 (plus GST) each, with Cartage in costing \$10 (plus GST) per barbecue (EFT payment 20102). The barbecues will have a selling price of \$200 (plus GST) each.

Required

- Explain** why GST on the purchase is **not** included in the calculation of the cost price of inventory.
- Calculate** the cost price of one of the barbecues purchased on 4 March 2030.
- Referring to your answer to part **b**, **explain** your treatment of 'Cartage in'.
- Record** EFT payment 20102 in the inventory card for barbecues.
- Record** EFT payment 20102 in the General Journal of El Fresco Living.



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Exercise 9.2

Cost of inventory

As at 1 January 2030, Comfy Couches had eight couches on hand with a cost price of \$1 590 each.

On 3 January 2030, the business purchased 10 couches from Wilson Products (Inv. 65), with the details of the purchase provided as follows:

Supplier's price	\$15 000
Anti-stain treatment	1 300
Sub-total	16 300
GST	1 630
Total invoice cost	\$17 930

Each couch has a selling price of \$4 000 (plus GST), with a special advertising campaign to sell the couches costing \$2 200 (including GST).

Required

- Explain** how valuing the couches at their selling price would breach both *Verifiability* and *Faithful representation*.
- Calculate** the cost price of one of the couches purchased on 3 January 2030.
- Referring to your answer to part **b**, **explain** your treatment of the advertising campaign.
- Record** Invoice 65 in the inventory card for couches.
- Record** Invoice 65 in the General Journal of Comfy Couches.



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Exercise 9.3

Product versus period costing

Ben Scott owns an electrical shop called High Voltage, which is the sole distributor of a new combined washer/dryer. The details of the new washer/dryer are:

Invoice price	\$900	per unit
Freight in	10%	of invoice price
Modification costs	\$25	per unit
Insurance of inventory	\$400	per month

Additional information:

- Ben has decided to treat the Insurance of inventory as a period cost.
- On 6 November 2030, Ben purchased 40 washer/dryers from Young Bros. (Inv. 23) and paid \$400 (plus GST) for insurance for the month (EFT payment 142).
- By 30 November 2030, 25 of the washer/dryers had been sold for \$2 500 (plus GST) each.

Required

- Referring to one Qualitative characteristic, **explain** why it is important that the cost price of inventory is calculated accurately.
- Explain** why the modification costs should be treated as product costs.
- Calculate** the unit cost of one washer/dryer.
- Record** the purchase on 6 November 2030 in the inventory card for washer/dryers.
- Record** the transactions on 6 November 2030 in the General Journal of High Voltage.
- Calculate** Gross Profit on washer/dryers for November 2030.
- Explain** whether Ben was correct in treating Insurance of inventory as a period cost.



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Exercise 9.4

Product versus period costs

As at 1 February 2030, FP Bicycles had four mountain bikes on hand that it had purchased for \$155 (plus GST) each.

On 12 February 2030, FP Bicycles purchased a further 10 mountain bikes from Wonder Cycles for a total cost of \$1 540 (including GST) (Invoice A13). On the same day, FP Bicycles paid a further \$170 (plus GST) for signwriting on the new bikes (EFT no. 912). FP Bicycles uses FIFO to value its inventory, and at the end of February 2030 eight mountain bikes remained on hand.

Required

- Calculate** the cost of one of the mountain bikes purchased on 12 February 2030.
- Referring to your answer to part **a**, **explain** your treatment of the cost of signwriting.
- Record** the purchase of inventory on 12 February 2030 in the inventory card for mountain bikes.
- Record** the purchase of inventory on 12 February 2030 in the General Journal of FP Bicycles. Narration is **not** required.
- Calculate** the value of mountain bikes on hand as at 28 February 2030.
- Calculate** the value of mountain bikes on hand as at 28 February 2030 if the cost of the signwriting had been treated as a period cost.
- State** the effect on the valuation of inventory on hand as at 28 February 2030 if the cost of signwriting had been treated as a period cost. **Explain** your answer.



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Exercise 9.5

Product versus period costs

Static Sound and Vision commenced Operations on 1 April 2030 selling televisions and stereo systems. The owner has provided the following document relating to the purchase of inventory on 1 April 2030:



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Wired Electronics

ABN: 66 765 400 008
89 Mill St,
Bendigo VIC 3550

TAX INVOICE

Invoice 201
Terms: 5/7, n/30

Charge to: Static Sound and Vision (ABN: 12 500 438 966)
Bell St, Coburg VIC 3058

Date	Details	Quantity	Unit Price	Total
Apr. 1 2030	60 inch television	12	650	7 800
	Sound bar (5 channel)	5	300	1 500
	Freight			300
	Subtotal			9 600
	GST			960
	Total			10 560

During April 2030, three televisions were sold for \$1 320 (including GST) each, and two sound bars were sold for \$550 (including GST) each. One television was written off as an inventory loss due after it was dropped in the showroom.

Required

- Record** Invoice 201 in the General Journal of Static Sound and Vision.
- Referring to your answer to part **a**, **explain** your treatment of Freight.
- * **Prepare** an Income Statement for Static Sound and Vision for April 2030 showing Gross Profit and Adjusted Gross Profit. A full Income Statement is **not** required.
- Explain** how treating expenses as period costs instead of product costs can lead to a lower profit.
- Discuss** whether it would have been ethical to sell the television that had been dropped.

Ethical considerations



**Exercise 9.6****Product versus period costs**

Nordic Supplies purchases ski goggles in shipments of 100 units that are stored in a local warehouse. They are sold under Nordic Supplies' own brand name, and free delivery is offered to customers. The following details have been provided for a purchase on 1 July 2030 (amounts do **not** include GST):

Supplier's invoice price	\$9 000
Attachment of brand badges	80
Packaging and delivery to Nordic Supplies	1 600
Cost of delivery to customers	9 per unit
Warehouse costs	150 month

Additional information:

- During July 2030, 30 pairs of goggles were sold.
- The Accountant has decided to treat the cost of attaching the brand badges as a period cost.

Required

- Discuss** the Accountant's decision to treat the cost of attaching the brand badges as a period cost. In your answer refer to at least one Qualitative characteristic.
- Calculate** the cost price of each pair of goggles purchased on 1 July 2030.
- Referring to your answer to part **b**, **explain** your treatment of Warehouse costs.
- Calculate** Cost of Goods Sold for goggles for July 2030.
- Model** the calculation of Cost of Goods Sold for goggles for July 2030 if packaging and delivery had been treated as a period cost.
- Referring to your answer to part **e**, **explain** the effect on the Accounting reports of Nordic Supplies if Packaging and delivery had been treated as a period cost.



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**Exercise 9.7****Lower of Cost and NRV**

During 2023, Foord Memorabilia purchased commemorative posters featuring the Matildas team that finished third in the World Cup of that year. The release of signed versions of the posters meant that sales were much lower than expected, and as at 1 May 2030, there were still 40 posters on hand, each with a cost price of \$20. The posters were originally sold for \$120 (plus GST), but on 31 May 2030 the owner estimated they could be sold for only \$5 (plus GST) each (Memo 39).

Required

- Calculate** the value of posters on hand as shown in the inventory card at 1 May 2030.
- Referring to one Qualitative characteristic, **explain** why the posters should be valued at the Lower of 'Cost' and 'Net Realisable Value'.
- Calculate** the total Inventory write-down on the posters as at 31 May 2030.
- Record** Memo 39 in the inventory card for posters.
- Record** Memo 39 in the General Journal of Foord Memorabilia.
- Explain** how the Inventory write-down will affect the Balance Sheet of Foord Memorabilia as at 31 May 2030.



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Exercise 9.8

Lower of Cost and NRV

Sukhveer Guneratne owns Sir Vaylance, a shop that sells security cameras. As at 1 September 2030, the firm had 14 Viewmaster video cameras in inventory, valued at \$450 each. On 21 September 2030, six video cameras were sold for \$800 (plus GST) each (Receipt 24). On 30 September 2030, the owner decided to lower the selling price of the remaining cameras to \$500 (plus GST) each (Memo 24). To encourage the sale of these cameras to make way for new inventory, she has offered her sales staff 15% commission on each sale.



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Required

- Define** the term Net Realisable Value (NRV).
- Calculate** the total Net Realisable Value of the cameras as at 30 September 2030.
- Record** Memo 24 in the inventory card for cameras.
- Record** Memo 24 in the General Journal of Sir Vaylance.
- * **Prepare** an Income Statement for Sir Vaylance for September 2030 that shows Gross Profit and Adjusted Gross Profit. A full Income Statement is **not** required.



Exercise 9.9

Lower of Cost and NRV

Girlfriend Fashions has provided the following information after conducting a physical inventory count on 31 December 2030 (Memo 17):

Inventory item	Qty	Cost price (per unit)	Estimated selling price (per unit)	Direct selling expenses (per unit)
Jeans	200	\$50	\$70	\$5
Shirts	50	\$35	\$40	\$8
Hats	400	\$20	\$28	\$3



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Required

- Calculate** the value of inventory on hand as at 31 December 2030 as would be shown in the inventory cards.
- Calculate** the value of inventory on hand as at 31 December 2030 by applying the Lower of 'Cost' and 'NRV' rule.
- State** three reasons why the Net Realisable Value of the inventory might have fallen below its Cost.
- Referring to your answer to part **b**, **explain** why it would be unethical to continue to value all inventory at its Cost.
- Record** the Inventory write-down in the appropriate inventory card of Girlfriend Fashions.
- Record** the Inventory write-down in the General Journal of Girlfriend Fashions. A narration is **not** required.
- State** the effect on the Accounting equation of Girlfriend Fashions if the inventory is **not** written down on 31 December 2030.

Ethical considerations



Exercise 9.10
Lower of Cost and NRV

High Country Camping has produced the following information regarding its inventory of snow jackets as at 31 October 2030:

Inventory on hand	50 @ \$70	3 500
	20 @ \$72	1 440
Total		\$4 940

The normal selling price of each jacket is \$250 (plus GST) each, but as it is nearing the end of the ski season, the owner estimates each jacket will only sell for \$80 (plus GST) (Memo 73). This will require extra selling expenses costing \$1 400 (plus GST).

Required

- a. Referring to one Accounting assumption, **explain** why it would be incorrect to value the jackets at \$250 each.
- b. Referring to one Qualitative characteristic, **explain** why the jackets should no longer be valued at their cost price.
- c. **Calculate** the Inventory write-down on snow jackets as at 31 October 2030.
- d. **Record** Memo 73 in the inventory card for snow jackets.
- e. **Record** Memo 73 in the General Journal of High Country Camping.



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Exercise 9.11
Inventory Turnover

HP Pots sells cooking equipment and has provided the following information relating to its activities for 2030:

Cost of Goods Sold	\$300 000
Inventory as at 1 January 2030	\$68 000
Inventory as at 31 December 2030	\$78 000

Additional information:

- Inventory is purchased on credit from SteelCo, which offers terms of 10/7, n/60.
- All sales are marked up 100%. Approximately 10% of sales are made on credit.
- Inventory Turnover for 2029 was 72 days.

Required

- a. **State** what is measured by Inventory Turnover.
- b. **Calculate** Inventory Turnover for HP Pots for 2030.
- c. Referring to your answer for part b, **explain** two reasons why the owner of HP Pots should be concerned about Inventory Turnover in 2030.
- d. **Explain** two reasons why the Inventory Turnover of HP Pots may have negative consequences for its profit.
- e. **Explain** two strategies HP Pots may implement in 2031 to improve its Inventory Turnover.
- f. **Discuss** whether HP Pots will have difficulties in paying its Accounts Payable on time in 2031.



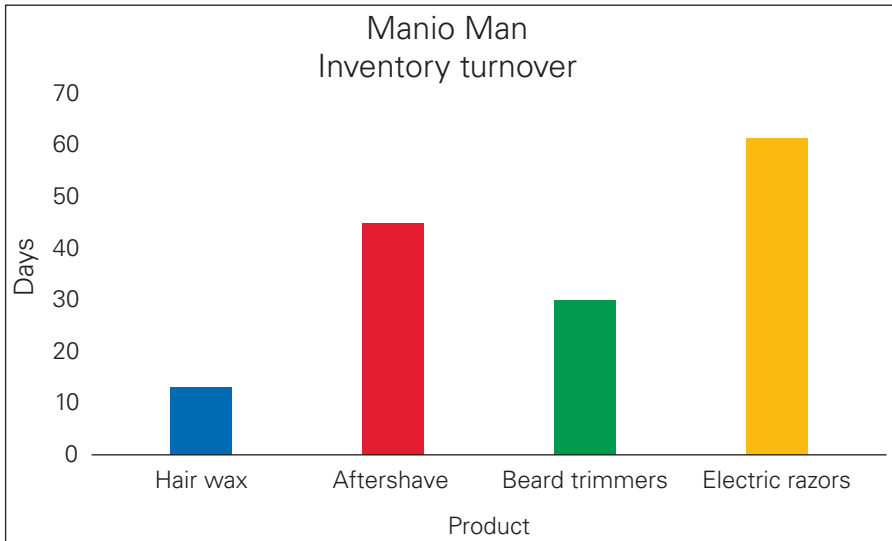
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Exercise 9.12

Cash cycle

Sade Manio is the owner of Manio Man, which sells men's grooming products including hair wax, aftershave, beard trimmers and electric razors. The following information relating to the firm's activities for 2030 has been provided:



Sade is concerned that the Inventory Turnover is not the same for each product line and is therefore intending to decrease prices and increase advertising.

Required

- Identify** which product has the fastest Inventory Turnover. **Suggest** one reason why this may be the case.
- Suggest** one reason for the difference in Inventory Turnover between beard trimmers and electric razors.
- Explain** why Sade should not be concerned that the Inventory Turnover is not the same for each product line.
- Explain** one strategy Sade could implement to improve the Inventory Turnover of aftershave without increasing sales.
- Identify** one extra piece of information you would need before assessing the overall Inventory Turnover of Manio Man for 2030. **Justify** your answer.
- Discuss** how decreasing prices might affect both Inventory Turnover and profit in 2031.



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**Exercise 9.13****Product versus period costs**

On 1 August 2030, Suave Suits had 10 pure wool suits on hand, which it had purchased for \$195 plus GST each during July 2030. The following transactions occurred during August 2030:



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 Woollen Mills Australia Quality Clothing Terms: 5/7, n/30		TAX INVOICE Invoice: 85 Original ABN: 45 111 981 342		
		Charge to: Suave Suits Geelong VIC 3220 (ABN: 44 505 612 349)		
Date	Details	Quantity	Unit Price	Total
3/8/30	Pure wool suits	16	175	2 800
	Tailoring costs			480
less	Sales discount			80
	Subtotal			3 200
plus	GST			320
	Total		\$	3 520

On 9 August 2030, Suave Suits paid Woollen Mills Australia \$3 168 in full settlement of Invoice 85 (EFT payment 3024). At the end of August 2030, four of the suits purchased on 3 August 2030 remained on hand.

Required

- Calculate** the cost of one of the suits purchased on 3 August 2030.
- Referring to your answer to part **a**, **explain** your treatment of the sales discount of \$80.
- Record** Invoice 85 in the inventory card for wool suits.
- Record** Invoice 85 and EFT payment 3024 in the General Journal of Suave Suits.
- Referring to your answer to part **d**, **explain** the effect of EFT payment 3024 on the valuation of inventory.
- Explain** the effect on the Balance Sheet of Suave Suits as at 31 August 2030 if the tailoring costs had been treated as period costs.
- Given that the discount and GST are both applied at a rate of 10%, **explain** why the dollar amount of the discount is greater than the dollar amount of GST.



Exercise 9.14

Recording and reporting for inventory

Zippy Scooters sells one type of scooter to selected retail stores. The scooters are manufactured by BX Bikes in Wangaratta and delivered to the shop in Carlton in lots of five. Zippy Scooters uses FIFO to value its inventory.

The following transactions took place during July 2030:

- July 1 Inventory on hand: 16 scooters valued at \$1 800 each.
- 5 Credit sale of 9 scooters for \$3 000 (plus GST) each to J. Fangio (Inv. V23).
- 12 Purchase of 5 scooters at \$1 400 each plus \$2 000 freight (Inv. 42). Total GST on the purchase amounted to \$900. A local mechanic was paid \$110 (including GST) per scooter to fit each one with a sports kit (EFT payment 188).
- 14 J. Fangio returned a scooter due to a faulty engine (Cr. Note 17) and received a credit for \$3 000 (plus GST).
- 16 Faulty scooter returned to the manufacturer; Zippy Scooters received a credit note for \$1 980 (including GST) (Cr. Note 922).
- 26 Credit sale of 9 scooters for \$3 300 (including GST) per bike (Inv. V24).
- 31 Inventory count revealed 3 scooters on hand, but one is scratched and damaged, and it can only be sold for \$1 200 (Memo 36).

Required

- a. **Calculate** the cost price of each scooter purchased on 12 July 2030.
- b. Referring to your answer to part a, **explain** your treatment of the cost of the sports kit.
- c. Referring to one Qualitative characteristic, **explain** why Memo 36 should be recognised in the financial reports of Zippy Scooters.
- d. **Record** the transactions for July 2030 in the inventory card for scooters.
- e. **Discuss** whether the damaged scooter should be recorded in a separate inventory card.
- f. **Record** the transactions on 14, 16 and 31 July 2030 in the General Journal of Zippy Scooters.
- g. **Show** how the Inventory account would appear in the General Ledger of Zippy Scooters after recording the information above. **Balance** the account.
- *h. **Prepare** an Income Statement for Zippy Scooters for July 2030 that shows Gross Profit and Adjusted Gross Profit. (A full Income Statement is **not** required.)
- i. **State** the effect on the Balance Sheet of Zippy Scooters as at 31 July 2030 if the cost of the sports kit had been treated as a period cost.

Zippy Scooters is considering using the Identified Cost method to value its inventory.

- j. **Explain** what actions Zippy Scooters would need to take to implement the Identified Cost method to value its inventory.
- k. **Explain** why the adoption of the Identified Cost method would not have changed the recording of the transaction on 5 July 2030.
- l. **Identify** one transaction from July 2030 that may have been recorded differently if the Identified Cost method had been used instead of FIFO. **Justify** your answer.
- m. **Discuss** how the use of the Identified Cost method instead of FIFO might have affected the Net Profit of Zippy Scooters for July 2030.



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Chapter 10

Reporting for profit

Learning intentions

After completing this chapter, you should be able to:

- **define** revenue, expenses and profit
- **calculate** profit
- **explain** the role of Accounting assumptions and Qualitative characteristics in the determination of profit
- **explain** the reasons for closing the ledger
- **record** closing entries in the General Journal and General Ledger
- **prepare** the Profit and Loss Summary account
- **record** the transfer of drawings to the Capital account in the General Journal and General Ledger
- **prepare** an Income Statement for a trading firm
- **explain** and **interpret** the information presented in an Income Statement
- **discuss** strategies to generate revenue and control expenses and **model** their effects
- **calculate** and **analyse** the Gross Profit Margin and Net Profit Margin
- **model** the effects of strategies to improve profit and profitability
- **construct** and **interpret** graphical representations of financial information.

Key terms

After completing this chapter, you should be familiar with the following terms:

- profitability
- Net Profit Margin (NPM)
- closing the ledger
- Gross Profit Margin (GPM)
- Profit and Loss Summary account
- Vertical analysis of the Income Statement
- Income Statement



10.1 Determining profit or loss

The most basic function of any small business is to earn a profit for the owner, and the calculation of profit is simple enough: profit is what is left over after expenses are deducted from revenues.

$$\text{Net Profit} = \text{Revenue} \text{ less } \text{Expenses}$$

In this equation, revenues are defined as increases in assets or decreases in liabilities that lead to an increase in owner's equity (other than those relating to capital contributions), and expenses are defined as decreases in assets or increases in liabilities that lead to a decrease in owner's equity (other than drawings by the owner).

Profit then represents a net increase in the owner's equity in the business (and is reported as such in the Balance Sheet).

Accounting assumptions and Qualitative characteristics

The question of *when* to calculate profit depends on the needs of the owners. The Going concern assumption states that the life of a business is continuous or never ending, so to follow this assumption alone means that profit could never be determined. As a result, owners would not have information about the trading activities of their firm until it was too late to do anything about it.

This is why the Period assumption is so important: it allows the life of the business to be divided into arbitrary periods so that profit can be determined.

The length of these Periods remains arbitrary, or subjective, as it is up to the owners to decide how often they want profit to be determined (although taxation requirements mean that it must be no longer than one year). Some owners will want profit calculated every month, while others will be satisfied with seasonal or quarterly profit reports. In some industries, such as fast food, hourly breakdowns of sales and expenses may be useful.

Once the length of the Period is determined, the Accrual basis assumption is applied to ensure that the calculation of profit includes only revenues and expenses that have occurred *during* the current Period.

Under this assumption, **revenues** are recognised in the Period in which the expected inflow of economic benefits can be measured, or when the revenue is **earned**. Similarly, **expenses** are recognised when the consumption of goods and/or services can be measured, or when the expense is **incurred**. This means profit under the Accrual basis is determined by comparing **revenue earned** against **expenses incurred** in that same Period.

Applying the Accrual basis assumption ensures that the reports support *Relevance* by including only information that is capable of making a difference to decision-making. Including items *other* than revenues and expenses (such as drawings or loan repayments), or even revenues or expenses that occurred *outside* the current Period (such as last year's wages), would mean the Income Statement would contain

information that would *not* be useful for decision-making. The information would thus distort decision-making and probably lead to negative consequences for the business and its owner.



Review questions 10.1

1 **Define** the following terms:

- revenues
- expenses
- profit.

2 **Explain** how the Period assumption assists in the calculation of profit.

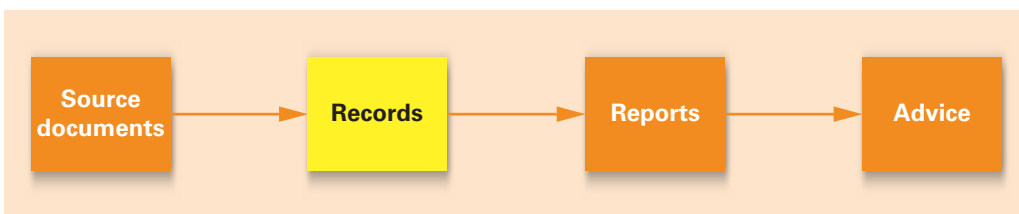
3 **Explain** how revenues and expenses are recognised under the Accrual basis assumption.

4 **Explain** how profit is calculated under the Accrual basis assumption.

5 **Explain** how the Accrual basis assumption helps to ensure *Relevance* in the Accounting reports.



10.2 Closing the ledger



Given that each revenue and expense item has its own ledger account, profit can be calculated from the General Ledger by **closing the ledger**: transferring the balances from all the revenue and expense accounts to a special account called the **Profit and Loss Summary account**, with a sole figure – the Net Profit or Loss for the current period – produced at the end. In the process, the revenue and expense accounts will be ‘emptied’ or reset to zero in readiness for the next Period.

Thus, the two main aims of closing the ledger are:

- to transfer revenues and expenses to the Profit and Loss Summary account in order to calculate profit for the *current* Period
- to reset revenue and expense accounts to zero in preparation for the *next* Period.

It is only revenue and expense accounts that are closed, because only revenues and expenses are used to determine profit, and revenues and expenses exist only during a particular Period. By contrast, assets and liabilities (and owner’s equity, for that matter) will exist into the future, so they are not closed but balanced so that they carry forward into the next Period.

closing the ledger

transferring balances from revenue and expense ledger accounts to the Profit and Loss Summary account so that profit can be calculated

Profit and Loss Summary account

a General Ledger account that is used to summarise revenues and expenses so that profit can be calculated

Study tip

The Profit and Loss Summary account is like a ‘funnel’ that collects all revenues and expenses so that profit can be calculated, but it is a temporary Owner’s equity account so is not reported anywhere.

Example

Pulse Music supplied the following Trial Balance as at 30 September 2030:

PULSE MUSIC		
Trial Balance as at 30 September 2030		
Account	Debit \$	Credit \$
Accounts Payable		36 000
Accounts Receivable	13 000	
Advertising	1 300	
Bank	3 800	
Capital – B. Pressure		28 970
Cartage in	600	
Cost of Sales	21 000	
Discount expense	700	
Discount revenue		500
Drawings	2 000	
Freight out	900	
GST Clearing		1 500
Interest expense	120	
Inventory	50 000	
Inventory gain		200
Inventory write-down	350	
Loan – Markos Bank		30 000
Rent expense	1 000	
Sales returns	1 000	
Sales revenue		35 000
Shop fittings	31 000	
Wages	5 400	
Totals	\$132 170	\$132 170

The owner has requested that the General Ledger be closed and reports prepared (Memo 43).

Closing revenue accounts

In the General Ledger, the revenue accounts (*Sales*, *Discount revenue* and *Inventory gain*) have a credit balance, so to transfer amounts *from* these accounts (and reset them to zero) they must be *debited*. (*Sales returns* is a negative revenue account with a debit balance but is also closed with the revenue accounts via a *credit* entry.)

Together, these amounts are then closed to the *Profit and Loss Summary* account by a single *credit* entry to show net revenue earned for the Period.

This would be recorded in the General Journal as shown in Figure 10.1.



Figure 10.1 General Journal: closing revenue accounts

General Journal			
Date	Details	Debit \$	Credit \$
Sept. 30	Sales	35 000	
	Discount revenue	500	
	Inventory gain	200	
	Sales returns		1 000
	Profit and Loss Summary		34 700
	Closing revenue accounts to Profit and Loss Summary		
	(Memo 43)		

Study tip

It may seem odd to debit a revenue account, but remember that the aim is to *reduce* the revenue accounts to zero.

Note how all the revenue accounts are closed in one General Journal entry, with each individual revenue account debited, but only one entry (for the net revenue figure of \$34 700) is credited to the Profit and Loss Summary account.

This entry would be posted to the General Ledger as is shown in Figure 10.2:

Figure 10.2 General Ledger: closing revenue accounts

General Ledger Sales * (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Profit and Loss Summary	35 000	Sept. 5	Accounts Receivable	15 000
			17	Bank	8 000
			28	Account Receivable	12 000
		35 000			35 000

Sales returns * (-R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 8	Accounts Receivable	1 000	Sept. 30	Profit and Loss Summary	1 000
		1 000			1 000

Inventory gain * (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Profit and Loss Summary	200	Sept. 30	Inventory	200
		200			200

Discount revenue * (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Profit and Loss Summary	500	Sept. 23	Accounts Payable	500
		500			500

Profit and Loss Summary (Oe)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Sept. 30	Revenues	34 700

* Other probable entries have been added to show more realistic accounts.

In the case of the Profit and Loss Summary account, the credit entry of \$34 700 is linked to the Sales, Sales returns, Discount revenue and Inventory gain accounts, but rather than list each and every one of these account names, the cross-reference

is simply **Revenues** to indicate that there are a number of revenue accounts linked to this total revenue figure.

As a result of the closing entry, all revenues have now been transferred into the Profit and Loss Summary account so that profit can be calculated for September 2030, and each revenue account has been reset to zero (it has a zero balance) in readiness for the next Period (so the revenue accounts for October 2030 will show only the revenue earned in October 2030).

Closing expense accounts

The same principle applies when closing expense accounts: all expense accounts are closed using one General Journal entry, with the total expenses figure posted to the Profit and Loss Summary account.

Expense accounts (and in this case there are many) have a debit balance, so to transfer amounts from these accounts (and reset them to zero) they must be **credited**, with a single **debit** to the **Profit and Loss Summary** account to show the total expenses incurred for the Period.

This would be recorded in the General Journal as shown in Figure 10.3:

Figure 10.3 General Journal: closing expense accounts

General Journal			
Date	Details	Debit \$	Credit \$
Sept. 30	Profit and Loss Summary	31 370	
	Advertising		1 300
	Cartage in		600
	Cost of Sales		21 000
	Discount expense		700
	Freight out		900
	Interest expense		120
	Inventory write-down		350
	Rent expense		1 000
	Wages		5 400
	Closing expense accounts to Profit and Loss Summary (Memo 43)		

This entry would be posted to the General Ledger as is shown in Figure 10.4.

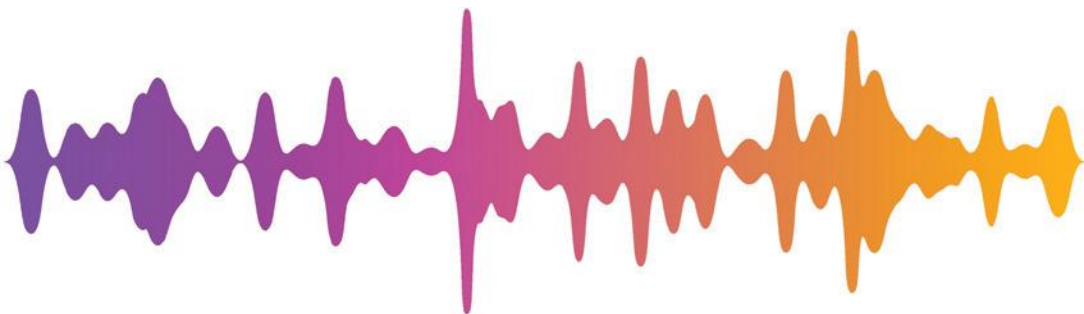


Figure 10.4 General Ledger: closing expense accounts

Advertising * (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 7	Bank	1 000	Sept. 30	Profit and Loss Summary	1 300
29	Inventory	300			
		1 300			1 300
Cartage in * (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 10	Bank	600	Sept. 30	Profit and Loss Summary	600
		600			600
Cost of Sales * (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 5	Inventory	10 000	Sept. 8	Inventory	600
17	Inventory	4 600	30	Profit and Loss Summary	21 000
28	Inventory	7 000			
		21 600			21 600
Discount expense * (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 7	Accounts Receivable	500	Sept. 30	Profit and Loss Summary	700
29	Accounts Receivable	200			
		700			700
Freight out * (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 14	Bank	900	Sept. 30	Profit and Loss Summary	900
		900			900
Interest expense * (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 2	Bank	120	Sept. 30	Profit and Loss Summary	120
		120			120
Inventory write-down * (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 26	Inventory	350	Sept. 30	Profit and Loss Summary	350
		350			350
Rent expense * (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 1	Bank	1 000	Sept. 30	Profit and Loss Summary	1 000
		1 000			1 000

Wages * (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 15	Bank	2 700	Sept. 30	Profit and Loss Summary	5 400
30	Bank	2 700			
		5 400			5 400

Profit and Loss Summary (Oe)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Expenses	31 370	Sept. 30	Revenues	34 700

*Other probable entries have been added to show more realistic accounts.

There is one single entry in the Profit and Loss Summary account but, as with revenues, the **debit** entry of \$31 370 is linked to a number of accounts, so the cross-reference in the Profit and Loss Summary must be just **Expenses** (in preference to listing each expense account).

Transferring profit or loss

With all revenues and expenses now closed to the Profit and Loss Summary account, the only step remaining is to calculate **profit** (by deducting **expenses** from **revenues**).

In this example **revenues** (\$34 700) are greater than **expenses** (\$31 370), meaning that a **Net Profit** (of \$3 330) has been earned. This profit represents an increase in owner's equity and so leads to a **credit** to the **Capital** account. The **Profit and Loss Summary** account must then be **debited** to leave it with a zero balance ready for the next Period.

Figure 10.5 shows the General Journal entries to transfer the profit from the Profit and Loss Summary account:

Study tip

For the purposes of explanation, this closing entry has been broken into three separate components but Figures 10.1, 10.3 and 10.5 would in fact constitute a single closing entry for September 2030.

Figure 10.5 General Journal: transferring profit or loss

General Journal			
Date	Details	Debit \$	Credit \$
Sept. 30	Profit and Loss Summary	3 330	
	Capital		3 330
	Transfer of Net Profit for September 2030 to Capital account (Memo 43)		

(In the case of a loss, the Capital account would be debited to show the decrease in owner's equity, with the Profit and Loss Summary account closed with a credit entry.)

This would be posted to the General Ledger as shown in Figure 10.6.

Figure 10.6 General Ledger: transferring profit or loss

General Ledger Profit and Loss Summary (Oe)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Expenses	31 370	Sept. 30	Revenues	34 700
	Capital	3 330			
		34 700			34 700

Capital * (Oe)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Sept. 1	Balance	18 970
			5	Bank	10 000
			30	Profit and Loss Summary	3 330

*Other probable entries have been added to show more realistic accounts.

As a result of the transfer of profit, the Profit and Loss Summary account now has a zero balance too, ready for next period. Opening (when the revenues and expenses are transferred in) and closing (when the profit or loss is transferred out) on the same day, the account lasts for only as long as it takes to post these three entries. It is never listed in an Accounting report, as its function is simply to facilitate the calculation of profit.

Study tip

There will only ever be three entries in the Profit and Loss Summary account: **Revenues**, **Expenses** and the transfer to the **Capital** account (for the profit or loss).

Study tip

Although the \$3 330 is **Net Profit**, this is not the name of a ledger account, so resist the temptation to label it as 'Profit' in the Profit and Loss Summary account.



Review questions 10.2

- 1 Explain** the process of closing the ledger.
- 2** Referring to an appropriate Accounting assumption, **explain** two reasons for closing the ledger.
- 3 Explain** why asset and liability accounts are not closed.
- 4 Show** the General Journal entries necessary to:
 - close revenue accounts
 - close expense accounts
 - transfer profit or loss to the Capital account.
- 5 Prepare** the 'template' of the Profit and Loss Summary account.
- 6** Referring to revenues and expenses, **explain** why the cross-references in the Profit and Loss Summary account are not individual ledger account names.
- 7 Explain** how the Profit and Loss Summary account would be classified in the Balance Sheet. (Beware!)



10.3 Transferring Drawings

It is customary to record drawings by the owner in a separate ledger account so that the owner's transactions for a particular Period can be identified. This also allows Drawings to be compared against Net Profit for the Period to determine whether it is at an appropriate level. However, at the end of the Period, the balance of the Drawings account must be transferred into the Capital account so that the Capital account can show the net effect of all transactions with the owner.

Because Drawings has a debit balance, this transfer is achieved via a **credit** to the **Drawings** account to set it to zero, and a **debit** to **Capital** to show the decrease in owner's equity.

Example (continued)

As at 30 September 2030, the Drawings account of Pulse Music showed a balance of \$2 000 DR (Memo 44).

Figure 10.7 shows how this would be recorded in the General Journal:

Figure 10.7 General Journal: transferring Drawings to Capital

General Journal			
Date	Details	Debit \$	Credit \$
Sept. 30	Capital	2 000	
	Drawings		2 000
	Transfer of Drawings for September 2030 to Capital account (Memo 44)		

Figure 10.8 shows how the General Ledger accounts would appear after posting the General Journal to the General Ledger:

Figure 10.8 General Ledger: transferring Drawings to Capital

General Ledger Drawings * (–Oe)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 16	Bank	1 800	Sept. 30	Capital	2 000
25	Inventory	200			
		2 000			2 000

Capital * (Oe)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Drawings	2 000	Sept. 1	Balance	18 970
	Balance	30 300	5	Bank	10 000
			30	Profit and Loss Summary	3 330
		32 300			32 300
			Oct. 1	Balance	30 300

*Other probable entries have been added to show more realistic accounts.

Although the Drawings account is transferred to the Capital account, it is not closed through the Profit and Loss Summary account. Transactions with the owner are expressly excluded from the definitions of revenues and expenses and must not be counted in the calculation of profit. To include drawings in the calculation of profit would be a direct breach of *Relevance*.

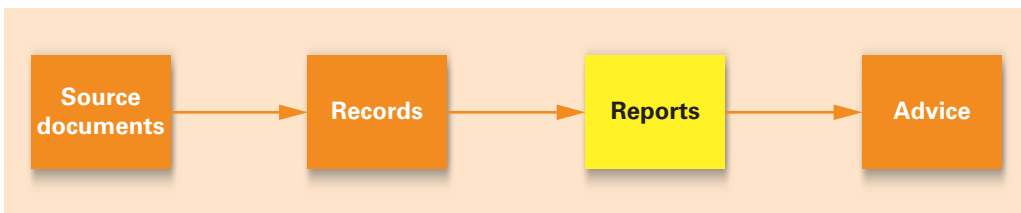


Review questions 10.3

- 1 **State** one reason why transactions with the owner are recorded separately in the Drawings account (rather than directly in the Capital account).
- 2 **State** one reason why the Drawings account is closed to the Capital account.
- 3 Referring to the definition of an expense, **explain** why the Drawings account is **not** closed to the Profit and Loss Summary account.
- 4 Referring to one Qualitative characteristic, **explain** why Drawings are **not** included in the calculation of profit.
- 5 **Show** the General Journal entries necessary to transfer Drawings to the Capital account.



10.4 The Income Statement



Having closed the ledger, the profit figure will be known in the records, but it must still be reported to the owner in an appropriate format. Knowing the Net Profit figure is all well and good, but perhaps the most obvious question for the owner to ask about profit is, 'How was the profit generated?' This question is answered by the preparation of an **Income Statement**, which details the revenues earned and expenses incurred during the period and, in the process, shows both Gross Profit and Net Profit.

The **Net Profit** reported in the Income Statement should be the same as the figure determined in the Profit and Loss Summary account, but the Income Statement will show the reasons why that profit (or loss) occurred, giving the owner far more information on which to base decisions. This fits with the basic function of all Accounting reports: to communicate financial information that will assist the owner in making better decisions.

Income Statement
an Accounting report that details the revenues earned and expenses incurred during the current Period

Using the data provided in Section 10.2, and closed to the Profit and Loss Summary account in Figures 10.1, 10.3 and 10.5, the Income Statement for Pulse Music would appear as shown in Figure 10.9:

Study tip

Presentation matters in Accounting reports; items must be reported under the correct headings for the statement to be correct.



Video 10.1
Preparing an Income Statement

Figure 10.9 Income Statement

PULSE MUSIC Income Statement for September 2030		
	\$	\$
Revenue ¹		
Sales revenue	35 000	
less Sales returns	1 000	34 000
less Cost of Goods Sold ²		
Cost of Sales	21 000	
Cartage in	600	21 600
Gross Profit ³		12 400
add Inventory gain	200	
less Inventory write-down	350	150
Adjusted Gross Profit ⁴		12 250
add Other revenues ⁵		
Discount revenue		500
		12 750
less Other expenses ⁶		
Advertising	1 300	
Discount expense	700	
Freight out	900	
Interest expense	120	
Rent expense	1 000	
Wages	5 400	9 420
Net Profit ⁷		3 330

In common with all Accounting reports, the Income Statement begins by identifying *who* the report was prepared for (Pulse Music), *what* type of report it is (an Income Statement) and *when* the report covers (September 2030).

(Unlike a Balance Sheet, which refers to *as at*, an Income Statement refers to *for*, as the information it reports is not confined to a single day but covers a period of time – in this case, the month of September 2030.)

The information within the report is classified under the following headings:

1 Revenue

This section lists only those revenues earned as a *direct result of selling inventory*, namely, Sales revenue. Sales could be listed separately (as 'Cash sales' and 'Credit sales',) but in this business there is only a single ledger account called 'Sales', so only one figure is reported in the Income Statement.

As noted in Chapter 6, reporting Sales returns separately allows the owner to assess the quality of the firm's inventory and customer service. As a negative revenue, Sales returns is reported as a deduction from Sales, leaving Net Sales of \$34 000 – the overall Sales revenue earned after the deduction of Sales returns.

2 Cost of Goods Sold

As explained in Chapter 8, Cost of Goods Sold is a heading referring to all costs incurred in getting goods into a condition and location ready for sale. Cost of Sales is simply one of the items that may be reported under this heading with period costs, like Cartage in, also included. (Any items listed separately under Cost of Goods Sold are, by definition, period costs as they have not been recorded in the Inventory account and expensed as part of Cost of Sales.)

Where Sales returns occur, the balance of the Cost of Sales account is changed when the return is recorded, so the figure closed to the Profit and Loss Summary account has already taken this into account.

3 Gross Profit

As the difference between Net Sales (\$34 000) and Cost of Goods Sold (\$21 600), Gross Profit reflects the profit earned directly from the sale of inventory.

As both Sales and Cost of Sales are the result of the same sales volume (or *quantity of sales*), the difference between them reflects the difference between the firm's selling and cost prices, so identifying this figure (with its own heading) allows the owner to assess the adequacy of the firm's mark-up.

4 Adjusted Gross Profit

Inventory losses and Inventory write-downs must be deducted from Gross Profit, while inventory gains must be added in order to determine Adjusted Gross Profit. These items do not occur as a direct result of the sale of inventory but are related to holding inventory and are therefore reported separately to allow the owner to make decisions about managing inventory.

5 Other revenues

Any revenues other than Sales are reported after Adjusted Gross Profit in order to protect Gross Profit as a measure of the mark-up.

Like Sales, Discount revenue will increase profit; however, it is not earned at the time of the sale: it actually occurs from paying Accounts Payable early, so it is only earned when the payment is made. As a result, it must be reported under Other revenues, after Gross Profit has been calculated. Interest revenue and Commission revenue would also be reported here.

The figure derived by adding Other revenues to Adjusted Gross Profit (\$12 750 in Figure 10.9) has no title, but it must be shown nonetheless. Leaving out this total may result in failing to account for Other revenues when Net Profit is calculated.

6 Other expenses

Other expenses refers to all expenses not related to inventory, including day-to-day expenses such as **Advertising**, **Rent** and **Wages**. If an expense is not reported in the calculation of Adjusted Gross Profit, it is reported here.

Note that this is where **Freight out** (the cost of delivery *to customers*) is reported, as this is incurred after the sale. Freight *in* (the cost of delivery *from the supplier*) is incurred in the process of getting goods ready for sale and so would be reported as part of Cost of Goods Sold.

7 Net Profit

This is the 'bottom line' so frequently talked about in business circles: the overall profit or loss earned by the business in the current Period. It is calculated by deducting Other expenses from the previous total (in this case, **\$12 750** less \$9 420) or by deducting total expenses from total revenues. It is this **Net Profit** figure of **\$3 330** that represents the net increase (or decrease) in owner's equity as a result of the firm's trading activities for the period.

If the closing entries have been recorded correctly, and the Income Statement prepared correctly, this Net Profit figure should be identical to the figure calculated in the Profit and Loss Summary account.



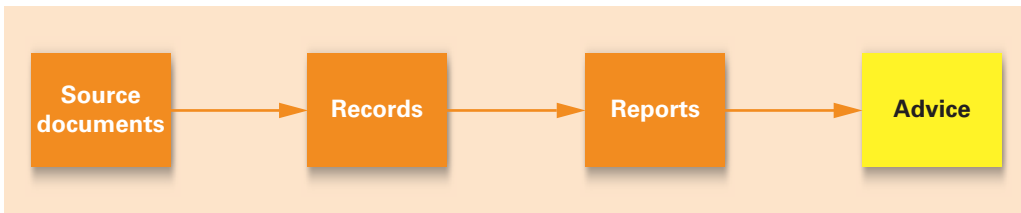
Review questions 10.4

- 1 **Explain** why it is necessary to prepare an Income Statement even when the profit figure is known.
- 2 **Explain** the relationship between the Profit and Loss Summary account and the Income Statement.
- 3 **Explain** why the Income Statement is titled *for* the period rather than as at a particular date.
- 4 **State** one reason for reporting Sales returns separately in the Income Statement.
- 5 **Explain** the difference between Cost of Sales and Cost of Goods Sold.
- 6 **Explain** how to identify a period cost in the Income Statement.
- 7 **Explain** why Discount revenue is reported after Adjusted Gross Profit.
- 8 **Identify** two revenues other than Discount revenue that would be classified as 'Other revenues'.





10.5 Uses of the Income Statement



The basic function of all Accounting reports is to communicate financial information that will assist the owner in making better decisions. In the case of the Income Statement, this information relates to the firm's trading operations: the revenue it has earned, the expenses it has incurred in the process and the profit or loss that has resulted.

By reporting what has already happened as a result of the firm's trading activities, the Income Statement allows the owner to:

- **Assess the firm's performance against its revenue and expense targets**

This is so that areas of over- and underperformance can be identified, allowing corrective action to be taken to improve profit in the next Period.

Comparisons of actual and budgeted (expected) revenues and expenses will highlight where performance was better or worse than expected. Strategies can then be implemented to generate more revenue and/or control expenses more effectively.

- **Plan for future trading activities**

This can be done by informing the formulation of the next set of revenue and expense targets.

By providing a basis for the next set of budgeted revenues and expenses, the Income Statement will aid in the setting of targets for the future. This may include sales levels and advertising expenditure, or even inventory levels and staffing requirements.

- **Calculate financial indicators to support analysis and interpretation**

Financial indicators such as the Gross Profit Margin (GPM) and Net Profit Margin (NPM) can be used not only to uncover what has happened, but to help explain why. (This is covered in the following pages and in more detail in Chapter 18.)

Strategies to earn profit

Armed with the information provided by the Income Statement, the owner is better equipped to make decisions to improve profit and profitability.

In basic terms, earning profit involves two simple yet complex activities:

- earning revenue
- controlling expenses.

These activities are simple in that they are easy to identify, but complex in that they are often hard to achieve.

Earning revenue

To generate more revenue, the owner may:

- **Change selling prices**

Selling prices could be decreased to generate a higher volume of sales or increased to generate greater revenue per sale. Modelling the effects of various scenarios can help the owner make this decision in an informed manner.

- **Market strategically and effectively**

Advertising could be increased, targeted more accurately at prospective customers or changed to emphasise different aspects of the business or the inventory it sells. Marketing can also include how inventory is displayed for sale within the store. At the same time, marketing must be ethical: it must represent honestly and completely the details and the qualities of the products offered for sale.

- **Implement strategies to manage inventory**

Detailed in Chapter 9, this could include a whole range of strategies to improve Inventory Turnover, such as:

- maintaining an appropriate inventory mix
- promoting the sale of complementary goods
- ensuring inventory is up to date
- rotating inventory.

Provided selling prices do not drop, higher Inventory Turnover resulting in higher sales volume will mean higher Sales revenue. (Some of these strategies could also help to control expenses like inventory losses and Inventory write-downs.)

- **Move to a better location**

If a relocation moves the business to an area that is more visible, closer to its existing customers or close to a new potential market, it may generate more sales revenue.

However, changing location can be logistically difficult, as not only must the assets of the business be moved, but customers must also be informed of the move and, in the case of sales made from the shop floor, willing to travel to the new location. (If sales are made online or over the phone, this is less of a concern.)

- **Improve customer service**

Staff training could improve employees' service and/or product knowledge and skills, extra services (such as deliveries, wrapping, internet/phone access and product advice) could be offered and internal procedures (such as ordering) could be made more customer friendly.

(Like strategies to manage inventory, improving staff skills could also help to manage expenses.)

Ethical considerations

Controlling expenses

In order to improve its ability to control expenses, a business might:

- **Change inventory management practices**

Finding an alternative supplier who can provide cheaper inventory could mean a reduction in Cost of Goods Sold, while better quality inventory might allow an increase in selling price, both of which would lead to higher Gross Profit. Changing ordering and handling procedures could reduce storage costs, inventory losses and even Inventory write-downs, or generate price discounts.

Having said that, the requirements for ethical purchasing remain and may even be a source of profit in the long run as customers respond to socially responsible trading practices. (See Chapter 9 for a detailed discussion of inventory management principles and Chapter 5 regarding ethical purchasing.)

Ethical considerations

- **Change staff management practices**

Different rostering systems, appropriate incentives and extra training may improve staff productivity and performance, leading to more effective utilisation of human resources.

Savings may be possible by reviewing and then matching more closely the number of staff to the level of sales. However, staff who are qualified and committed may actually generate more sales, and lower sales returns, than those paid more cheaply.

In any case, it is not possible to simply cut wage rates unilaterally without expecting a negative response from employees and, in many cases, legal action for breaching fair work practices and employment law.

- **Change non-current asset management practices**

This could include reviewing electricity usage and adopting energy-saving practices and devices or researching lower prices from different suppliers.

Assets that are inefficient, under-utilised or unreliable are ultimately expensive and should be replaced or removed. This could include almost any non-current asset, such as office equipment, fixtures and fittings, shelving, delivery vehicles or even premises (with rent a significant expense).

Non-financial information

Choosing between options for improvement must always be done with knowledge of the individual business in mind, and to this end *non-financial information* is also critical. For example:

- the number of competitors in the area
- the number of customers in particular locations
- the number of repeat sales
- the number of sales returns
- the number of customer complaints
- the number of website hits
- the predicted weather for the next month

can all influence which strategies are implemented.

And all of this must still be done with **ethical considerations** in mind. Notwithstanding the cost savings, a business owner may for ethical reasons decide to choose a more expensive option because it is more socially or environmentally responsible.

Goods produced by suppliers who pay their employees fairly, electricity and gas generated through 'green power' or assets that produce less waste and fewer greenhouse emissions may be chosen in spite of higher costs from their use. The owner must consider the health of the business within the society and environment in which it operates: one cannot be healthy unless the other is too.

Ethical considerations



Review questions 10.5

- 1 **Explain** how an Income Statement can be used by a business to assess its trading performance.
- 2 **Explain** how an Income Statement can be used by a business to plan for future trading activities.
- 3 **List** five strategies that might be used to generate more revenue.
- 4 **List** five strategies that might be used to improve expense control.
- 5 **Explain** the importance of non-financial information in decision-making to improve profit.
- 6 **Explain** why ethical considerations must be taken into account by business owners when choosing strategies to improve profitability.

Ethical considerations



10.6 Financial indicators

By reporting revenues earned and expenses incurred, the Income Statement identifies the individual reasons why a particular profit (or loss) occurred. However, it does so in *absolute* dollar terms.

Financial indicators, on the other hand, present information about **profitability** – the ability of the firm to earn profit – in *relative* terms, comparing items from the Income Statement against each other and against items from the Balance Sheet. This will be explored in detail in Chapter 18, but it is worth considering two of these financial indicators here in the context of using the Income Statement to assist decision-making.

profitability

the ability of a business to earn profit as expressed in relative terms by comparing profit against a base like sales, assets or owner's equity

Net Profit Margin (NPM)

a profitability indicator that indicates expense control by calculating the percentage of Net Sales revenue that is retained as Net Profit

Net Profit Margin (NPM)

Competition in many markets means that earning revenue is a challenging exercise for most small businesses. With this in mind, it is vital that once a sale is made the business retains, as profit, as much of that revenue as possible.

The **Net Profit Margin (NPM)** calculates the percentage of Net Sales revenue that is retained as Net Profit. Put another way, it measures how much of *each dollar* of Net Sales revenue remains as Net Profit after expenses are deducted. As a result, it is a good indicator of overall expense control.

Net Profit Margin is calculated as shown in Figure 10.10:

Figure 10.10 Formula: Net Profit Margin

$$\text{Net Profit Margin (NPM)} = \frac{\text{Net Profit}}{\text{Net Sales}} \times 100$$

A high Net Profit Margin means that a large percentage of Net Sales revenue is retained as Net Profit (because a low percentage is consumed by expenses).

Example

Using the information from the previous example:

In September 2030, Pulse Music had earned \$34 000 in **Net Sales** and \$3 330 in **Net Profit**.

The Net Profit Margin of Pulse Music would be calculated as shown in Figure 10.11:

Figure 10.11 Calculation: Net Profit Margin

$$\begin{aligned} \text{Net Profit Margin (NPM)} &= \frac{\text{Net Profit}}{\text{Net Sales}} \times 100 \\ &= \frac{\$3\,330}{\$34\,000} \times 100 \\ &= 9.79\% \end{aligned}$$

Study tip

When assessing performance, look *backwards* (to previous figures), *forwards* (to budget figures) and *sideways* (to competitors or industry averages).

This Net Profit Margin indicates that, in September 2030, Pulse Music retained 9.79% of its Net Sales as **Net Profit**. (From the reverse perspective, it also means that 90.21% of its Net Sales was consumed by **expenses**.) Put another way, it means that for every \$1 of Net Sales generated, almost 10 cents is retained as Net Profit.

Whether this Net Profit Margin would be seen as satisfactory or not would depend on a comparison against *previous periods*, *budgeted* performance and *competitors' performance* (industry averages).

Gross Profit Margin (GPM)

Because the Net Profit Margin uses Net Profit in its calculation, it can be used to assess overall expense control. If *Gross Profit* is used instead, we are able to assess expense control specifically as it relates to *inventory and Cost of Goods Sold*.

The **Gross Profit Margin (GPM)** calculates the percentage of Net Sales revenue that is retained as Gross Profit, indicating the average mark-up on all goods sold during a particular Period.

Gross Profit Margin is calculated as shown in Figure 10.12:

Gross Profit Margin (GPM)

a profitability indicator that measures the average mark-up by calculating the percentage of Net Sales revenue that is retained as Gross Profit

Figure 10.12 Formula: Gross Profit Margin

$$\text{Gross Profit Margin (GPM)} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$$

A high Gross Profit Margin means that a large percentage of Net Sales revenue is retained as Gross Profit (because a low percentage is consumed by Cost of Goods Sold).

Using the information from the previous example:

In September 2030, Pulse Music had earned \$34 000 in Net Sales and \$12 400 in Gross Profit.

Example

The Gross Profit Margin of Pulse Music would be calculated as shown in Figure 10.13:

Figure 10.13 Calculation: Gross Profit Margin

$$\begin{aligned} \text{Gross Profit Margin (GPM)} &= \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100 \\ &= \frac{\$12\,400}{\$34\,000} \times 100 \\ &= 36.47\% \end{aligned}$$

This Gross Profit Margin indicates that 36.47% of Net Sales revenue is retained as Gross Profit (or 63.53% of Net Sales is consumed by Cost of Goods Sold). Put another way, it means that for every \$1 of Net Sales generated, approximately 37 cents is retained as Gross Profit.

Given that it does not account for Other expenses, the Gross Profit Margin will always be higher than the Net Profit Margin. The only exception would be if the business had no Other expenses, but this would be highly unlikely.

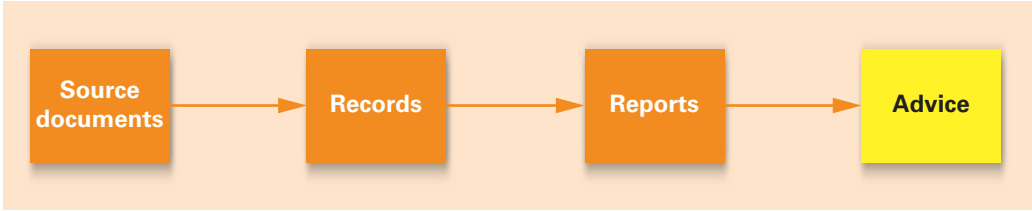


Review questions 10.6

- 1 **Define** the term 'profitability'.
- 2 **Explain** why financial indicators can be useful in assessing profitability.
- 3 **Show** the formula to calculate the Net Profit Margin.
- 4 **Explain** how the Net Profit Margin can be used to assess profitability.
- 5 **Show** the formula to calculate the Gross Profit Margin.
- 6 **Explain** how the Gross Profit Margin can be used to assess profitability.
- 7 **Identify** three benchmarks that can be used to assess the Net Profit Margin and Gross Profit Margin.
- 8 **Explain** why the Gross Profit Margin is always higher than the Net Profit Margin.



10.7 Communicating information: graphical representations



The information presented earlier in this chapter in the Income Statement took the form of a financial report. In many cases information presented in this form will be just what the owner is interested in seeing, and the owner will be able to interpret the report to make decisions.

Having said that, *Understandability* requires financial information to be presented in a way that is comprehensible to (can be understood by) users, meaning it should be presented clearly and concisely. Even for users who have a high level of financial literacy, one way of ensuring this occurs is to utilise graphical representations of the information in the reports.

Trends: line graphs

When representing changes in a particular item *over time*, line graphs can be a useful way of presenting information.

Example

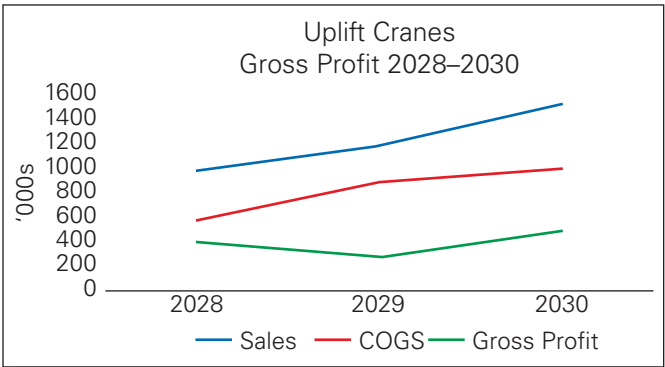
Uplift Cranes has presented the following information relating to its activities from 2028–2030:

	2028	2029	2030
Sales revenue	1 000 000	1 200 000	1 500 000
Cost of Goods Sold	600 000	900 000	1 000 000
Gross Profit	400 000	300 000	500 000

An analysis of the raw figures may lead the Accountant to particular conclusions, but trends and relationships between items may be more obvious to the owner if the information is represented graphically. (In this endeavour, a spreadsheet program can be very helpful.)

Figure 10.14 uses a line graph to represent the information for Uplift Cranes:

Figure 10.14 Line graph



The graph provides a visual representation of the increase in Sales revenue over the three years, the larger than proportional increase in Cost of Goods Sold leading to a decrease in Gross Profit in 2029 and the smaller increase in Cost of Goods Sold leading to a bigger increase in Gross Profit in 2030. The graph also shows clearly that the change in the gap between Sales and Cost of Goods Sold determines the change in Gross Profit.

A similar approach could be applied to any data over time, including financial indicators like Net Profit Margin and Gross Profit Margin.

Constructing line graphs using spreadsheets

Spreadsheet programmes (like Excel and Numbers, just to name two) present data in columns (running left to right) and rows (running up and down), allowing the data in each 'cell' to be sorted and manipulated. This means mathematical processes (like addition, subtraction, division and multiplication) can be applied using formulae, allowing calculations to be made independent of the actual numbers involved. As a consequence, results can change automatically in response to changes in the data.

In the case of the Income Statement, spreadsheets also make the creation of graphical representations like Figure 10.14 relatively easy, with the graphs also changing automatically to reflect changes in the data.

To create the graph in Figure 10.14, the data had to be rearranged in the spreadsheet as shown in Figure 10.15:

Figure 10.15 Line graph: spreadsheet

	A	B	C	D
1		Sales	COGS	Gross Profit
2	2028	1000	600	400
3	2029	1200	900	300
4	2030	1500	1000	500

Any spaces were removed to ensure the data was recognised as numbers (and not text), and the number of 'thousands' was also removed to allow the data to be represented more clearly.

The program used to create Figure 10.14 also had a function – in the menu bar at the top – that then allowed for the automatic creation of the graphs (followed by some manipulation to improve the presentation, e.g. colours and headings).

Proportions: pie charts

When representing the components of a particular item, like individual items that make up Sales revenue or Total expenses, pie charts can be helpful.

Finn Fashions has presented the following information relating to its activities for July 2030:

Example

	\$
Sales revenue	85 000
less Cost of Goods Sold	45 000
Gross Profit	40 000
Less Inventory loss	3 000
Adjusted Gross Profit	37 000
Less Other expenses	
Advertising	3 000
Discount expense	1 400
Rent	12 000
Wages	10 000
Net Profit	10 600

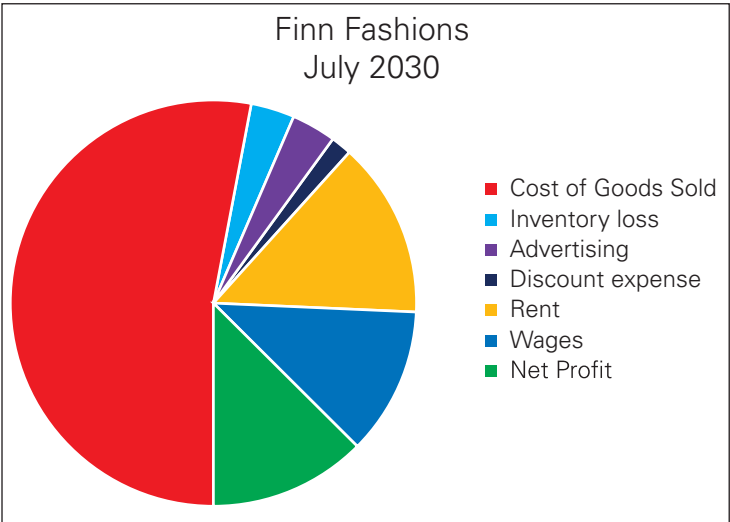
Vertical analysis of the Income Statement

a representation of individual expenses as a percentage of Sales revenue to allow for an assessment of their relative importance

While the owner could review each of the expense *amounts*, by presenting them as a percentage of Sales revenue (sometimes called a **Vertical analysis of the Income Statement**), a pie chart allows the owner to examine their *relative* importance.

Figure 10.16 shows how a pie graph can be used to represent the relative size of each expense:

Figure 10.16 Pie chart



From this graph it is clear that **Cost of Goods Sold** is the single biggest component of expenses, consuming more than half of Sales revenue, and therefore most deserving of attention. Efforts to improve smaller expenses, like Discount expense, may improve profit, but by only a small amount.

Constructing pie charts using spreadsheets

Before the spreadsheet program was able to construct the graph in Figure 10.16, it was necessary to convert the dollar figures into a percentage of sales. Figure 10.17 shows how the spreadsheet was constructed and the percentage calculated:

Figure 10.17 Pie chart: spreadsheet

	A	B	C	Formula in Column C
1	Item	\$	%	
2	Sales revenue	85 000	100%	=B2/B\$2
3	Less Cost of Goods Sold	45 000	53%	=B3/B\$2
4	Gross Profit	40 000	47%	=B4/B\$2
5	Less Inventory loss	3 000	4%	=B5/B\$2
6	Adjusted Gross Profit	37 000	43%	=B6/B\$2
7	Less Other expenses			
8	Advertising	3 000	4%	=B8/B\$2
9	Discount expense	1 400	2%	=B9/B\$2
10	Rent	12 000	14%	=B10/B\$2
11	Wages	10 000	12%	=B11/B\$2
12	Net Profit	10 600	12%	=B12/B\$2

The formulae shown in the additional column use a *relative cell* reference (meaning it changes from B2 to B3 etc) for each item, but an *absolute cell* reference (meaning it always uses the figure in cell B2) for the **Sales revenue**. Absolute cells are designated by the use of a '\$' prior to the row or column that will not change. In this way, every percentage shown in column C is calculated by dividing the item by the **Sales revenue** of \$85 000.

As with the line graph in Figure 10.14, the spreadsheet programme had short cuts on the menu bar to enable the creation of the pie chart, with only minor changes necessary for formatting.



Review questions 10.7

- 1 Referring to one Qualitative characteristic, **explain** the purpose of using graphical representations to communicate Accounting information.
- 2 **Explain** the purpose of preparing a line graph.
- 3 **Explain** the role of a spreadsheet in preparing a line graph.
- 4 **Explain** the purpose of preparing a pie chart.
- 5 **Explain** the use of a spreadsheet in preparing a pie chart.



Where have we been?

- Profit is calculated by matching revenues earned against expenses incurred in that Period.
- Closing the ledger is necessary to:
 - transfer revenue and expense amounts to calculate profit for the current Period
 - reset the revenue and expense accounts to zero in readiness for the next Period.
- Revenue and expense accounts must be closed to the Profit and Loss Summary account at the end of the Period. Profit is then transferred from the Profit and Loss Summary account to the Capital account.
- The Drawings account is transferred to the Capital account at the end of the Period.
- The Income Statement aids decision-making by detailing the revenues earned and expenses incurred during the Period, and in the process showing both Gross Profit and Net Profit.
- The Income Statement and Profit and Loss Summary account should both calculate the same Net Profit figure.
- Financial indicators like Net Profit Margin and Gross Profit Margin can be used to assess performance.
- Businesses can adopt strategies to generate revenue and control expenses.
- Graphical representations can assist *Understandability* in communicating financial information.

Exercises

Please note: asterisks indicate that an answer for that question is available in the Selected Answers section at the end of this book.



Exercise 10.1 Closing the ledger



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Rugged Rugs has provided the following ledger accounts for August 2030:

General Ledger Inventory

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 1	Balance	10 000	Aug. 5	Cost of Sales	17 000
16	Cost of Sales	650	13	Cost of Sales	15 000
19	Accounts Payable	34 000	21	Advertising	400
			31	Inventory loss	500

Sales

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Aug. 5	Bank	34 000
			13	Accounts Receivable	28 000

Sales returns

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 16	Accounts Receivable	1 300			

Interest revenue

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Aug. 4	Bank	1 500

Cost of Sales

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 5	Inventory	17 000	16	Inventory	650
13	Inventory	15 000			

Wages

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 24	Bank	12 000			

Rent expense

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 12	Bank	9 000			

Advertising					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 3	Bank	8 000			
21	Inventory	400			

Inventory loss					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 31	Inventory	500			

Required

- Explain** the purpose of closing the ledger.
- Record** the closing entries and transfer of profit or loss in the General Journal of Rugged Rugs as at 31 August 2030 (Memo 41).
- Post** the General Journal to the General Ledger of Rugged Rugs.
- Explain** why the Inventory account is balanced rather than closed.
- Explain** how the Profit and Loss Summary account will be reported in the Balance Sheet of Rugged Rugs as at 31 August 2030.



Exercise 10.2

Closing the ledger

Jigsaw World has provided the following ledger accounts for December 2030:



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General Ledger					
Cash sales					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Dec. 3	Bank	18 000
			21	Bank	12 000

Credit sales					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Dec. 19	Accounts Receivable	27 000
			27	Accounts Receivable	23 000

Sales returns					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 26	Accounts Receivable	1 000			

Inventory gain					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Dec. 31	Inventory	1 200

Freight inwards					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 8	Bank	1 600			

Cost of Sales

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 3	Inventory	9 000	Dec. 26	Inventory	500
19	Inventory	13 500			
21	Inventory	6 000			
27	Inventory	11 500			

Wages

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 12	Bank	16 000			
26	Bank	14 500			

Rent expense

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 2	Bank	8 500			

Discount expense

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 30	Accounts Receivable	1 300			

Required

- Record** the closing entries and transfer of profit or loss in the General Journal of Jigsaw World as at 31 December 2030 (Memo 13).
- Post** the General Journal to the General Ledger of Jigsaw World.
- Calculate** Adjusted Gross Profit for Jigsaw World for the year ended 31 December 2030.
- Explain** how closing the ledger ensures *Relevance* in the financial reports.





Exercise 10.3

Closing the ledger and transferring Drawings

On 30 June 2030, the Trial Balance of Wombat Plants showed the following:

WOMBAT PLANTS Trial Balance as at 30 June 2030		
Account	Debit \$	Credit \$
Accounts Payable		4 000
Accounts Receivable	5 000	
Bank	1 700	
Capital – Withered		45 900
Cost of Sales	50 000	
Discount expense	400	
Discount revenue		500
Drawings	2 000	
GST Clearing		1 000
Inventory	45 000	
Inventory loss	300	
Loan – ANZ (repayable \$2 000 per annum)		16 000
Sales		82 500
Sales returns	2 500	
Shop fittings	17 000	
Wages	11 000	
Water and supplies expense	15 000	
Totals	149 900	149 900

Additional information:

Drawings consisted of \$1 600 cash and \$400 inventory.

Required

- Record** the closing entries and transfer of profit or loss in the General Journal of Wombat Plants as at 30 June 2030. A narration is **not** required.
- Record** the transfer of Drawings in the General Journal of Wombat Plants as at 30 June 2030 (Memo 152).
- Show** how the Profit and Loss Summary, Capital and Drawings accounts would appear in the General Ledger of Wombat Plants as at 30 June 2030 after all closing and balancing entries had been made.
- Explain** why Drawings is **not** closed to the Profit and Loss Summary account.
- * **Prepare** the equities side of the Balance Sheet of Wombat Plants as at 30 June 2030.



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**Exercise 10.4****Income statement**

On 30 June 2030, the General Journal of Frosty Fridges showed the following closing entries:



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FROSTY FRIDGES General Journal			
Date	Details	Debit \$	Credit \$
June 30	Sales	122 600	
	Discount revenue	1 800	
	Sales returns		2 000
	Profit and Loss Summary		122 400
	Closing revenue accounts to P&L Summary account		
June 30	Profit and Loss Summary	98 900	
	Advertising		3 000
	Cost of Sales		60 000
	Customs duty		2 500
	Discount expense		1 300
	Inventory loss		500
	Inventory write-down		600
	Rent expense		12 000
	Wages		19 000
	Closing expense accounts to P&L Summary account		
June 30	Profit and Loss Summary	23 500	
	Capital – B. Ding		23 500
	Transfer of Net Profit to Capital account		
June 30	Capital – B. Ding	5 600	
	Drawings		5 600
	Transfer of Drawings to Capital account		

The owner of Frosty Fridges has argued that it would not matter if her Drawings was reported as part of Wages.

Required

- Show** how the Profit and Loss Summary and Capital accounts would appear in the General Ledger of Frosty Fridges after all closing and balancing entries had been made.
- Prepare** an Income Statement for Frosty Fridges for the year ended 30 June 2030.
- Referring to your answer to part **b**, **explain** your treatment of Customs duty.
- Referring to one Qualitative characteristic, **explain** why Frosty Fridges should still prepare an Income Statement even when it knows the Net Profit for the period.
- The owner has stated that as owner's equity increased, the firm's assets must also have increased. **State** one reason why this may be incorrect.
- Referring to financial and ethical considerations, **discuss** whether the owner's Drawings should be reported as part of Wages.

**Ethical
considerations**



Exercise 10.5

Income statement

The Trial Balance for Precious Paintings as at 31 October 2030 showed the following:

PRECIOUS PAINTINGS Trial Balance as at 31 October 2030		
Account	Debit \$	Credit \$
Accounts Payable		6 350
Accounts Receivable	2 800	
Advertising	450	
Bank	3 520	
Capital – Lovegood		14 200
Cost of Sales	9 600	
Delivery vehicle	20 000	
Discount expense	70	
Discount revenue		50
Drawings	1 500	
Freight in	610	
Freight out	800	
GST Clearing		350
Inventory	14 000	
Inventory loss	400	
Loan – Commonwealth Bank (repayable \$5000 p.a.)		20 000
Rent expense	2 400	
Sales		17 500
Wages	2 300	
Totals	58 450	58 450



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Additional information:

Precious Paintings employs one part-time shop assistant.

Required

- Record** the General Journal entries to close the expense accounts of Precious Paintings as at 31 October 2030. A narration is **not** required.
- Show** how the Profit and Loss Summary and Capital accounts would appear in the General Ledger of Precious Paintings after all closing and balancing entries had been made.
- * **Prepare** an Income Statement for Precious Paintings for October 2030.
- Referring to your answer to part **c**, **explain** your treatment of Freight out.
- State** two reasons why the owner may be disappointed with Net Profit for October 2030.
- Using an example from the information provided, **explain** how an increase in Other expenses might lead to an increase in Net Profit.
- * **Prepare** a classified Balance Sheet for Precious Paintings as at 31 October 2030.

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Exercise 10.6

Income statement

On 31 May 2030, the Trial Balance of Rest Easy Beds showed the following:



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REST EASY BEDS Trial Balance as at 31 May 2030		
Account	Debit \$	Credit \$
Accounts Payable		3 000
Accounts Receivable	1 000	
Advertising	230	
Bank		3 410
Buying expenses	900	
Capital – J. Snooze		26 790
Cost of Sales	8 380	
Discount revenue		250
Drawings	1 500	
GST Clearing		350
Inventory	14 000	
Inventory gain		300
Inventory write-down	400	
Loan – Bank of Hope (repayable \$5 000 p.a.)		15 000
Office furniture	7 650	
Rent expense	1 800	
Sales		12 000
Sales returns	1 200	
Shop fittings	21 920	
Wages	2 120	
Totals	61 100	61 100

Required

- Explain** how it is possible for Rest Easy Beds to have an inventory gain and an Inventory write-down in the same period.
- Record** the General Journal entry to close the revenue accounts of Rest Easy Beds as at 31 May 2030. A narration is **not** required.
- * **Prepare** an Income Statement for Rest Easy Beds for May 2030.
- Referring to your answer to part **c**, **explain** your reporting of discount revenue.
- Referring to your answer to part **c**, **explain** why the owner might be concerned about the quality of the firm's sales staff.
- Explain** two actions the owner might take to improve the Net Profit of Rest East Beds.
- * **Prepare** a classified Balance Sheet for Rest Easy Beds as at 31 May 2030.





Exercise 10.7

Net Profit Margin

Franklin Howard Motors has provided the following information relating to its trading activities for 2028 to 2030:



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FRANKLIN HOWARD MOTORS Income Statement (extract) for:			
	2028	2029	2030
	\$	\$	\$
Sales	810 000	900 000	980 000
Sales returns	5 000	8 000	12 000
Cost of Goods Sold	402 500	446 000	484 000
Gross Profit	402 500	446 000	484 000
Other Expenses	316 500	356 000	392 000
Net Profit	86 000	90 000	92 000

Additional information:

- A mark-up of 100% is applied to all sales.
- To increase profit, the owner is considering spending \$25 000 on a free-to-air television advertising campaign in 2031. He anticipates that this would generate a 6% increase in Sales, with Sales returns likely to increase to \$15 000.

Required

- Explain** what is measured by the Net Profit Margin.
- Calculate** the Net Profit Margin for Franklin Howard Motors for 2029 and 2030.
- Referring to your answer to part **b**, **explain** whether the firm's ability to control its overall expenses has improved or worsened in 2030.
- Model** the effect of the owner's plan to increase spending on advertising on the Income Statement and Net Profit Margin for 2031.
- Referring to your answer to part **d**, **discuss** whether the owner's plan to increase spending on advertising is likely to improve profit and profitability in 2031.
- Explain** two actions the owner might take to improve the Net Profit Margin without affecting Sales.
- Referring to one Qualitative characteristic, **explain** the purpose of constructing graphical representations of financial information.
- Prepare** a graph to show the trend in Sales, Sales returns and Net Profit from 2028 to 2030.



**Exercise 10.8****Gross Profit Margin**

Martha's Backyard sells garden furniture and has provided the following information relating to its activities for 2030:



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MARTHA'S BACKYARD Income Statement for 2030		
	\$	\$
Sales	480 000	
less Sales returns	3 200	476 800
less Cost of Goods Sold		
Cost of Sales	228 400	
Buying expenses	10 000	238 400
Gross Profit		238 400
less Inventory write-down		6 900
Adjusted Gross Profit		231 500
less Other expenses		
Administration expenses	13 900	
Discount expense	6 100	
Gas and electricity	10 000	
Rent expense	35 000	
Wages	89 000	154 000
Net Profit		77 500

Additional information:

- In 2029 the Gross Profit Margin of Martha's Backyard was 42%.
- The owner of Martha's Backyard thinks she can generate a higher Gross Profit Margin by cutting back on wages paid to staff in 2031.

Required

- Referring to the Income Statement, **identify** whether Martha's Backyard pays its Accounts Payable early. **Justify** your answer.
- Explain** what is measured by the Gross Profit Margin.
- Calculate** the Gross Profit Margin for Martha's Backyard for 2030.
- Referring to your answer to part **c**, **suggest** two possible reasons for the change in the Gross Profit Margin from 2029 to 2030.
- Referring to financial and ethical considerations, **evaluate** the owner's plan to improve the Gross Profit Margin in 2031.
- Prepare** a graph to show the proportion of Net Sales consumed by each expense in 2030.
- Referring to your answer to part **f**, **explain** how presenting information in this way could improve expense control.

**Ethical
considerations**



Exercise 10.9

Income Statement

Zara and Luke is a homewares shop in Brunswick selling items like lamps, rugs, vases and small furnishings. The business prepares its reports on a monthly basis. The owner has provided the firm's Trial Balance as at 30 April 2030:



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ZARA AND LUKE Trial Balance as at 30 April 2030		
Account	Debit \$	Credit \$
Accounts Payable		49 500
Accounts Receivable	2 300	
Advertising	1 560	
Bank	5 160	
Capital		63 080
Commission revenue		350
Cost of Sales	8 250	
Discount expense	200	
Drawings	1 500	
Electricity expense	620	
Fixtures and fittings	35 000	
Freight in	300	
GST Clearing		4 700
Interest expense	50	
Inventory	46 000	
Mortgage – Bank of Melven		490 000
Premises	520 000	
Sales		16 900
Sales returns	400	
Telephone charges	90	
Wages	3 100	
Totals	624 530	624 530

Additional information:

- \$1 100 of wages paid was incorrectly recorded as \$1 000 Advertising (plus GST) (Memo 65).
- A physical inventory count on 30 April 2030 determined there was \$45 610 of inventory on hand (Memo 66).
- The business employs one shop assistant, who is paid minimum wages.
- Sometimes Zara and Luke receives a commission for displaying for sale goods made by a local pottery business, but it has just been informed that the pottery business may be using dangerous chemicals to clean its equipment.
- The Loan – Bank of Melven is repayable \$500 per month.

Required

- Explain** whether Zara and Luke owns the shop it uses for its operations.
- Record** Memo 65 and Memo 66 in the General Journal of Zara and Luke. Narrations are **not** required.
- Record** the closing entries and transfer of profit in the General Journal of Zara and Luke as at 30 April 2030. A narration is **not** required.

- * **d. Prepare** an Income Statement for Zara and Luke for April 2030.
- e.** Referring to at least one financial and one ethical consideration, **discuss** whether Zara and Luke should continue to display for sale the goods made by the local pottery business.
- f. Explain** two actions the owner might take to improve profit without changing total expenses.
- * **g. Prepare** a Balance Sheet for Zara and Luke as at 30 April 2030.
- h. Explain** how the owner can ensure that the valuation shown for 'Fixtures and fittings' is a *Faithful representation*.



Exercise 10.10

Income statement



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Heruni Kohli is the owner of Prime Windows, a business that sells windows and other construction materials. The business is based in a small town about 500 km from Melbourne where Heruni also lives with her husband and young family. Most sales are made to two local builders, but some sales are for home renovations. The town has a population of about 500 people, 15 of whom are employed by JB Constructions, Prime Windows' main supplier.

Heruni has provided the firm's Trial Balance as at 30 June 2030:

PRIME WINDOWS Trial Balance as at 30 June 2030		
Account	Debit \$	Credit \$
Accounts Payable		140 000
Accounts Receivable	84 000	
Bank		680
Buying expenses	4 300	
Capital		262 670
Cost of Sales	310 000	
Discount expense	2 400	
Discount revenue		4 000
Drawings	31 700	
GST Clearing	3 800	
Insurance	1 200	
Interest expense	750	
Inventory	146 000	
Inventory write-down	1 600	
Loan – QV Finance		179 400
Rent expense	25 000	
Sales		420 000
Sales returns	1 500	
Shelving	145 000	
Vehicle expenses	16 400	
Vehicles	180 000	
Wages	53 100	
Totals	1 006 750	1 006 750

Additional information:

- Heruni is concerned that the business is not well known in the wider building industry.
- Prime Windows has been approached by an interstate supplier who has quoted cost prices 10% below those currently being paid to JB Constructions.
- The Loan – QV Finance was used to purchase new vehicles during June 2030. It is to be repaid in monthly instalments of \$600.

Required

- Referring to the Trial Balance, **explain** whether Prime Windows sells on credit terms.
- * **Prepare** an Income Statement for Prime Windows for the six months ending 30 June 2030.
- Explain** why Heruni is likely to be correct in asserting that the business is not well known.
- Show** how the Profit and Loss Summary and Capital accounts would appear in the General Ledger of Prime Windows after all closing and balancing entries had been made.
- Discuss** the financial and ethical considerations of Prime Windows changing to the interstate supplier.
- Explain** two actions Heruni could take to improve the Gross Profit of Prime Windows without changing suppliers.
- * **Prepare** a Balance Sheet for Prime Windows as at 30 June 2030.
- Explain** one reason why Heruni should be concerned about the relationship between Net Profit and Drawings for the six months ended 30 June 2030.

**Ethical
considerations**



Chapter 11

Reporting for cash



Learning intentions

After completing this chapter, you should be able to:

- **explain** the need to report for cash
- **prepare** a Statement of Receipts and Payments
- **explain** the role of the Bank account in reporting for cash
- **define** the terms 'cash surplus' and 'cash deficit'
- **define** and **identify** Operating, Investing and Financing cash flows
- **prepare** a Cash Flow Statement
- **explain** the uses of the Cash Flow Statement
- **explain** the difference between cash and profit
- **calculate** and **analyse** Cash Flow Cover (CFC)
- **identify** reasons why a firm's cash and profit performance may differ.

Key terms

After completing this chapter, you should be familiar with the following terms:

- Statement of Receipts and Payments
- cash surplus
- cash deficit
- Cash Flow Statement
- Operating activities
- Investing activities
- Financing activities
- Cash Flow Cover (CFC).



11.1 Reporting for cash

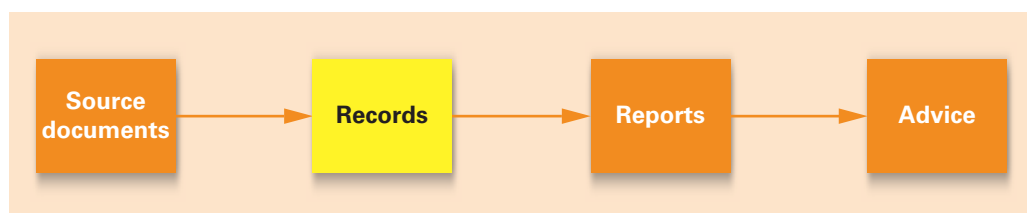
Accounting exists as an information system, and as part of that system, Accounting reports have the function of communicating financial information to the owner to assist decision-making.

The previous chapters were concerned mainly with reporting for profit and, given that earning a profit is the primary reason for being in business, this is certainly a valid concern. After all, owners must have accurate information about revenues and expenses if they are to improve the trading performance of their firms.

However, many profitable businesses still fail because they have not paid sufficient attention to managing their cash. Many small business owners (incorrectly) assume that cash and profit are the same thing, and that if they can sell their products at a profit then they will automatically have cash available to pay their debts. Unfortunately, this is not the case. Cash and profit are different measures of performance, and there are many possible reasons why a firm that is earning a profit can still suffer from a lack of cash.

Given that cash and profit are different, it is important that the owner is provided with different information on both items. (If you are still questioning whether cash and profit are actually different things, skip ahead to '11.5 Cash versus profit' to check!) Without information on both cash and profit, the owner will not be able to manage both effectively.

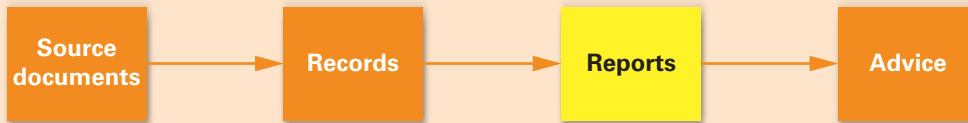
Recording for cash



In terms of the Accounting equation, any reporting for cash must be based on the recording that has already occurred. Data about cash *could* be garnered directly from the source documents (cash receipts – manual, electronic, EFT, credit card; EFT payment receipts), but this information would apply to individual transactions only and would not be sorted in any way.

Instead, reporting for cash is based on the information already recorded in the Bank account in the General Ledger, which combines cash receipts (recorded on the debit side) and cash payments (recorded on the credit side) to allow for the calculation of a closing Bank balance. The same information is also available in the Bank Statement (even though the timing of some transactions that appear in the Bank account in the General Ledger might not appear in the Bank Statement until the next Period and vice-versa).

The Statement of Receipts and Payments



Statement of Receipts and Payments

an Accounting report that details cash received and paid during a period, and the change in the firm's bank balance over that period

Given the information recorded in the Bank account, the most basic way of reporting for cash is to detail cash *received* and cash *paid* during the period, and then identify the change in the firm's bank balance. This is achieved by preparing a **Statement of Receipts and Payments**.

Example

As at 31 December 2030, the Bank account of Makris Manchester showed the following:

General Ledger Bank					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 1	Balance	13 500	Dec. 3	Electricity / GST Clearing	550
2	Loan – Aust. Bank	25 000	4	GST Clearing	1 500
5	Capital	5 000	7	Shelving / GST Clearing	11 000
12	Cash sales / GST Clearing	23 100	10	Accounts Payable	26 000
20	Accounts Receivable	19 000	12	Inventory / GST Clearing	13 200
24	Cash sales / GST Clearing	24 200	15	Wages	16 000
29	Accounts Receivable	22 500	19	Insurance / GST Clearing	1 320
			21	Drawings	6 700
			23	Accounts Payable	15 400
			23	Loan – Aust. Bank	2 000
				Interest expense	600
			26	Office equipment / GST Clearing	4 950
			29	Wages	15 000
			30	Inventory / GST Clearing	8 800
			31	Balance	9 280
		132 300			132 300
Jan. 1	Balance	9 280			

Rather than list every individual cash transaction as recorded in the Bank account, receipts and payments are summarised according to their purpose before they are reported in the Statement of Receipts and Payments. For example, all Cash sales are aggregated and reported as a single figure, as are receipts from Accounts Receivable, payments to Accounts Payable, payments for Inventory, payments for Wages and cash Drawings.

Using this information, the Statement of Receipts and Payments would appear as shown in Figure 11.1.

Figure 11.1 Statement of Receipts and Payments

MAKRIS MANCHESTER Statement of Receipts and Payments for December 2030		
	\$	\$
Cash Receipts		
Cash sales	43 000	
GST received	4 300	
Receipts from Accounts Receivable	41 500	
Loan – Aust. Bank	25 000	
Capital contribution	5 000	118 800
Less Cash Payments		
Payments to Accounts Payable	41 400	
Inventory	20 000	
Wages	31 000	
Electricity	500	
GST settlement	1 500	
Shelving	10 000	
Drawings	6 700	
Insurance	1 200	
Loan – Aust. Bank	2 000	
Interest expense	600	
Office equipment	4 500	
GST paid	3 620	123 020
Surplus (Deficit)		(4 220)
Add Bank Balance at start (1 December 2030)		13 500
Bank Balance at end (31 December 2030)		9 280

In common with all Accounting reports, this statement identifies the *who* (Makris Manchester), the *what* (Statement of Receipts and Payments) and the *when* (the month ended 31 December 2030) about which it is reporting. As with the Income Statement, the *when* refers to a period of more than one day and so states that it is *for the month* (rather than *as at*, which applies to the Balance Sheet).

Reporting GST cash flows

Where the cross-reference of a transaction includes GST Clearing, it indicates GST was involved, and the GST amount is calculated by dividing the transaction amount by 11. These individual amounts for GST received or GST paid can then be added together to determine the total GST cash flows.

By contrast, the GST settlement (\$1 500) is identifiable because the cross-reference is *only* GST Clearing. This amount is reported separately because, unlike GST paid, it is paid to the ATO to settle the GST debt from the previous period.

Surplus (deficit)

By deducting payments from receipts, the cash surplus or cash deficit can be calculated:

$$\text{Surplus (Deficit)} = \text{Cash receipts} - \text{Cash payments}$$

A **cash surplus** occurs when cash received is greater than cash paid during the period, and it will lead to an overall increase in the bank balance. A **cash deficit** occurs when cash received is less than cash paid, and it will lead to an overall decrease in the bank balance.

Note that the closing **Balance** of the Bank account in the General Ledger matches the **Bank balance at end** in the Statement of Receipts and Payments (which in this case is **\$9 280**). Both use the same data, but because the Statement of Receipts and Payments summarises the sources of cash (cash receipts) and uses of that cash (cash payments), it allows the owner to identify not only whether the firm's cash balance has increased or decreased, but also the main reasons why this has occurred. As a result, it is more useful to the owner in making decisions about the firm's cash performance.

cash surplus

an excess of cash receipts over cash payments, leading to an increase in the bank balance

cash deficit

an excess of cash payments over cash receipts, leading to a decrease in the bank balance

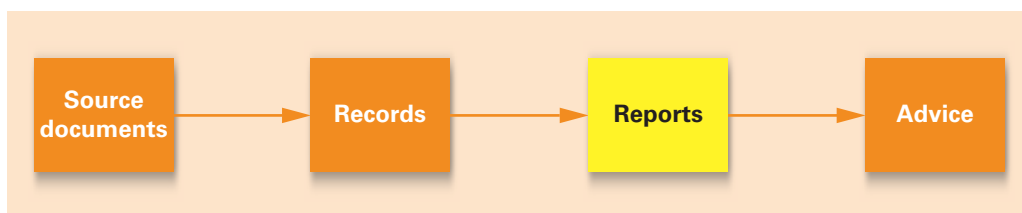


Review questions 11.1

- 1 **Explain** the basic function of all Accounting reports.
- 2 **Explain** why it is important to report for both cash and profit.
- 3 **Explain** why reports for cash are prepared from the Bank account in the General Ledger rather than the source documents.
- 4 **Explain** the function of a Statement of Receipts and Payments.
- 5 **Explain** how the information reported in the Statement of Receipts and Payments differs from the data recorded in the Bank account in the General Ledger.
- 6 **Explain** how GST received and GST paid are determined.
- 7 **Explain** why a GST settlement is reported separately from GST paid.
- 8 **Define** the following terms:
 - cash surplus
 - cash deficit.



11.2 The Cash Flow Statement



While the Statement of Receipts and Payments is a good starting point for assessing changes in the firm's cash position, it is somewhat limited in its uses because it only classifies the cash transactions as receipts or payments. Information about cash is more useful for decision-making if it classifies common *sources* and *uses* of cash and separately identifies their effect on the bank balance. The **Cash Flow Statement** reports on cash inflows (cash received) and cash outflows (cash paid), separately identifying cash flows relating to Operating activities, Investing activities and Financing activities.

Operating activities

Operating activities are all cash flows related to the firm's day-to-day trading activities. Operating inflows will include cash sales, receipts from Accounts Receivable, GST received and any other cash revenues. Operating outflows will include all payments related to expenses (including interest), payments to Accounts Payable, GST settlement and GST paid.

Cash Flow Statement

an Accounting report that details all cash inflows and outflows from Operating, Investing and Financing activities, and the overall change in the firm's cash balance

Operating activities

cash flows related to day-to-day trading activities

Investing activities

cash flows related to the purchase and sale of non-current assets

Investing activities

Investing activities are cash flows relating to the purchase or sale of non-current assets. In effect this will mean there are only two possible Investing items: cash received from the sale of a non-current asset (Investing inflow) and cash paid for the purchase of a non-current asset (Investing outflow).

Financing activities

cash flows related to changes in the financial structure of the firm

Financing activities

Financing activities are cash flows that are the result of changes in the firm's financial structure. In essence, this will mean only cash transactions that change Loans and Owner's equity, such as receiving or repaying the principal of a loan or cash contributions or drawings by the owner.

Using the same information that was reported in the Statement of Receipts and Payments in Figure 11.1, the Cash Flow Statement for Makris Manchester would appear as shown in Figure 11.2:

Study tip

When classifying cash flows, work from the bottom up: identify the Financing and Investing activities first, so the remainder must be Operating activities.

**Video 11.1**

Preparing a Cash Flow Statement

Study tip

Resist the temptation to classify interest as 'Financing'. Interest is a payment for an expense, so it is always 'Operating'.

Figure 11.2 Cash Flow Statement

MAKRIS MANCHESTER		
Cash Flow Statement for December 2030		
	\$	\$
CASH FLOWS FROM OPERATING ACTIVITIES		
Cash sales	43 000	
GST received	4 300	
Receipts from Accounts Receivable	41 500	88 800
Payments to Accounts Payable	(41 400)	
Inventory	(20 000)	
Wages	(31 000)	
Electricity	(500)	
GST settlement	(1 500)	
Insurance	(1 200)	
Interest expense	(600)	
GST paid	(3 620)	(99 820)
Net Cash Flows from Operating Activities		(11 020)
CASH FLOWS FROM INVESTING ACTIVITIES		
Shelving	(10 000)	
Office equipment	(4 500)	14 500
Net Cash Flows from Investing Activities		(14 500)
CASH FLOWS FROM FINANCING ACTIVITIES		
Loan – Aust. Bank	25 000	
Capital contribution	5 000	30 000
Drawings	(6 700)	
Loan – Aust. Bank	(2 000)	(8 700)
Net Cash Flows from Financing Activities		21 300
Net Increase (Decrease) in Cash Position		(4 220)
Add Bank Balance at start (1 December 2030)		13 500
Bank Balance at end (31 December 2030)		9 280

Just like the Statement of Receipts and Payments, the Cash Flow Statement reports all cash inflows and outflows and, as a consequence, calculates the same overall change in cash position, leading to the same cash or bank balance at the end of the Period. This also remains the same as the balance calculated in the Bank account in the General Ledger.

However, there are important differences.

First and most importantly, rather than one group of cash receipts and one group of cash payments, items are classified under the three headings, allowing the owner to assess the firm's performance in managing its cash from Operating activities, Investing activities and Financing activities.

As a consequence, the net increase in cash position (or in this case decrease of **\$4 220**) is calculated not by simply deducting total cash payments from total cash receipts, but by calculating the Net Cash Flows from each activity, and then adding these figures together:

	Net Cash Flows from Operating Activities	(11 020)
+	Net Cash Flows from Investing Activities	(14 500)
+	Net Cash Flows from Financing Activities	21 300
	Net increase (decrease) in cash position	(\$4 220)

Second, in the Cash Flow Statement headings like 'Cash inflows' and 'Cash outflows' may be used, but usually, by convention, cash outflows are simply identified by the use of brackets. This applies to individual items as well as the Net Cash Flows.

Assessing Net Cash Flows

Positive **Net Cash Flows from Operating Activities** is important because it means the business is generating sufficient cash from its day-to-day trading activities to meet its operating requirements and also provide cash for Investing and Financing activities. By contrast, negative Net Cash Flows from Operating Activities not only uses any available cash on hand, but also means funds are not being generated for Investing and Financing activities. Continued in future periods, this would mean no cash to meet payments and, ultimately, an inability to operate (without cash from Investing and Financing activities).

Net Cash Flows from Investing Activities is more likely to be negative, as a trading business will usually spend more on purchasing non-current assets than it generates from their sale (when they are older and in need of replacement). Investing cash flows will be positive only when non-current assets are sold, and this is likely to be infrequent.



Net Cash Flows from Financing Activities could be positive or negative. Negative Investing cash flows could mean Financing cash flows are positive, as the purchase of non-current assets is financed by loans and/or capital. However, the loan principal will need to be repaid in the future and this, plus the owner’s drawings, could result in negative Financing cash flows in a subsequent period.

In this example, the firm’s overall cash position has decreased by **(\$4 220)**, largely because of the negative Net Cash Flows from Operating Activities of **(\$11 020)**. Fortunately, Net Cash Flows from Financing Activities of **\$21 300** is positive, meaning that even after funding the Net Cash Flows from Investing Activities of **(\$14 500)**, Makris Manchester still has **\$9 280** left in its Bank account.

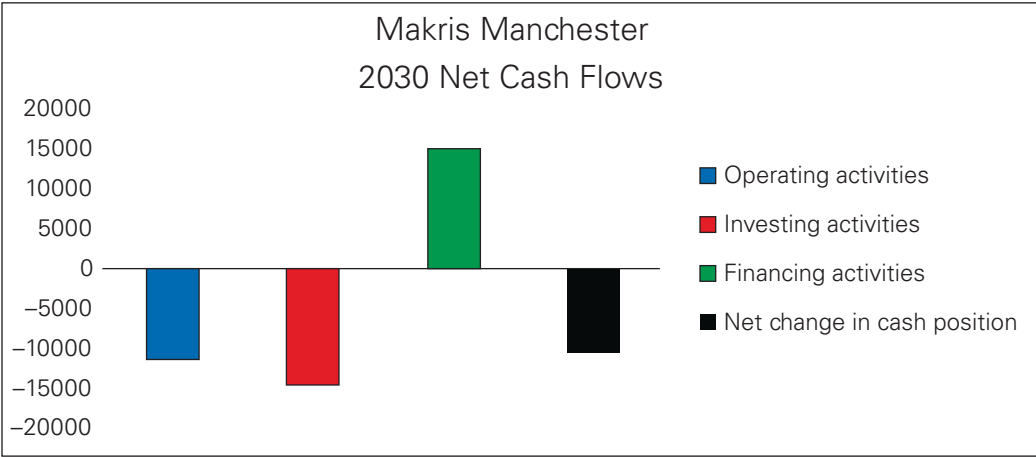
An analysis of the Cash Flow Statement indicates that Makris Manchester used the loan of **\$25 000** to purchase the shelving for **\$10 000** and office equipment for **\$4 500**, with the remainder still in the Bank account. However, the timing of the cash flows (see the Bank account on page 327) seems to indicate that the capital contribution of **\$5 000** was necessary to ensure there were sufficient funds in the Bank account to pay Accounts Payable **\$26 000** on 10 December 2030.

Graphical representations

The Understandability of the Cash Flow Statement may be enhanced further if Net Cash Flows – from Operating activities, Investing activities and Financing activities – are represented graphically.

Figure 11.3 shows how the cash flows of Makris Manchester for December 2030 could be represented as a bar graph:

Figure 11.3 Bar graph: Net Cash Flows



From this graph, it is clear that cash flows are negative for both Operating and Investing activities, but that Financing activities have made a significant contribution to cash on hand. However, the overall result is negative; there has been a **net decrease in cash position**, meaning there is less cash on hand.

Trends

To show the trend over time a line graph could be used.

As at 1 January 2027, Timeless Watches had \$10 000 in its Bank account. The following information was provided about the firm's cash flows from 2028 to 2030:

Example

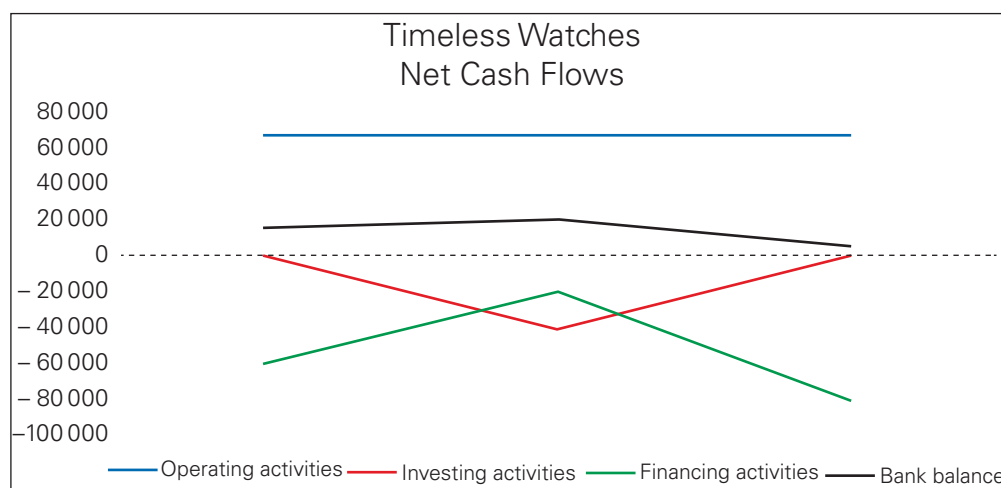
	2028	2029	2030
Net Cash Flows from Operating Activities	65 000	65 000	65 000
Net Cash Flows from Investing Activities	0	(40 000)	0
Net Cash Flows from Financing Activities	(60 000)	(20 000)	(80 000)
Net increase (decrease) in cash	5 000	5 000	(15 000)
Bank balance at end	15 000	20 000	5 000

Additional information:

- The owner withdraws \$60 000 every year.
- During 2029, the business used a loan to purchase non-current assets worth \$40 000.
- Half of the loan (\$20 000) was repaid in 2030, with the remaining half (\$20 000) to be repaid in 2031.

Figure 11.4 shows the line graph to represent this information:

Figure 11.4 Line graph: trend in Net Cash Flows



Note the relationship between **Investing** activities and **Financing** activities. **Financing** cash flows are always **negative** due to the \$60 000 Drawings per year. However, in 2029 **negative Investing** cash flows for the **purchase of the non-current assets** is matched by **less negative Financing** cash flows as the business has **taken out a loan**. When the **loan is repaid** in 2030, **Financing** cash flows are **negative**, but as no further purchases of non-current assets are made, **Investing** cash flows are zero.

As a consequence of this alignment, the **Bank balance** reflects the changes in **Operating** cash flows, with the **positive Operating** cash flows in 2028–2030 keeping the Bank balance above zero. However, should **Operating** cash flows fall – perhaps due to a loss of sales or an increase in cash paid for inventory – the **Bank balance** might fall (and in an extreme case move into overdraft).

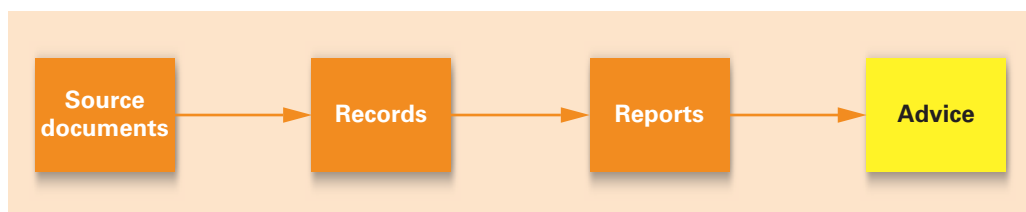


Review questions 11.2

- 1 **Define** the following terms as they relate to the Cash Flow Statement, and **identify** one cash inflow and one cash outflow under each classification:
 - Operating activities
 - Investing activities
 - Financing activities.
- 2 **Explain** one reason why it may be more beneficial to prepare a Cash Flow Statement rather than a Statement of Receipts and Payments.
- 3 **Describe** how cash outflows are usually identified in a Cash Flow Statement.
- 4 **Explain** why it is important for a business to generate positive Net Cash Flows from Operating Activities.
- 5 **Explain** the possible relationship between Net Cash Flows from Investing Activities and Net Cash Flows from Financing Activities.
- 6 **Explain** how information about timing can influence an assessment of cash flows.
- 7 Referring to one Qualitative characteristic, **explain** the purpose of using graphical representations to communicate information about cash flows.
- 8 **Identify** which type of graph might be useful to represent:
 - Net Cash Flows in a particular year
 - Net Cash Flows over time.



11.3 Uses of the Cash Flow Statement



Poor management of cash is one of the main reasons why small businesses fail. In this regard, the Cash Flow Statement is a vital tool for improving the owner's decision-making in relation to cash management.

By reporting what has already happened as a result of the firm's cash activities, the Cash Flow Statement allows the owner to:

- **assess the firm's performance against its cash targets**

This is done by detailing the sources and uses of cash in a particular period so that areas of over- and under performance can be identified and corrective action taken to improve cash.

Comparisons of actual and budgeted (expected) cash inflows and cash outflows will highlight where performance was better or worse than expected. Strategies can then be implemented to generate more cash inflows and/or control cash outflows more effectively in the next period.

In particular, the owner would want to assess whether the business is generating enough cash from its Operating activities to fund its Investing and Financing activities (see below).

- **plan for future cash activities**

This is done by informing the formulation of the next set of cash targets (budgets).

By providing a basis for the next set of budgeted cash inflows and cash outflows, the Cash Flow Statement will aid in setting cash targets for the future. This may include levels of cash sales or collections from Accounts Receivable, payments to Accounts Payable or for expenses, or the financing and purchasing of non-current assets using loans and capital contributions.

- **calculate financial indicators to support analysis and interpretation**

Financial indicators such as the Cash Flow Cover (CFC) can be used to compare elements of the Cash Flow Statement with other items from the reports, allowing for an assessment in relative as well as absolute terms. (This is covered below and in more detail in Chapter 19.)

Strategies to generate cash

Whereas profit is, in essence, about earning revenue and controlling expenses, generating cash is about:

- generating cash inflows
- minimising cash outflows.

Generating cash inflows

To generate more cash inflows, the owner may:

- **increase sales revenue**

Sales revenue will generate cash directly from cash sales, but also in the form of receipts from Accounts Receivable, so any measures to improve sales (like changing selling prices, advertising, changing the inventory mix, improving customer service or even changing location) should also lead to higher cash inflows.

However, if sales increase through lax credit checks on Accounts Receivable, or Accounts Receivable are not followed up adequately, cash may not be generated even if sales increase. This means strategies to generate sales (as described in Chapter 10) must be complemented by strategies to manage Accounts Receivable (as described in Chapter 6) if cash inflows are to improve.

- **implement strategies to manage Accounts Receivable**

Even without an increase in sales, strategies to manage Accounts Receivable (as described in Chapter 6, like credit checks, discounts for early settlement and reminders) can still generate higher cash inflows.

These strategies should always be legal and ethical, and also consider the long-term as well as short-term interests of the business. Leniency in collecting cash from Accounts Receivable in the short term may result in the continuing operation of that customer, and sales and cash inflows well into the future.

- **use loans and capital contributions to finance the purchase of non-current assets**

Loans and capital contributions give the business access to more funds, allowing it to purchase non-current assets to generate sales (and therefore cash).

Loans do incur an interest charge, but the cost of any interest should be considered against the long-term benefits generated by the asset, with repayments made over that longer period. Capital, on the other hand, provides interest-free cash and has no set time for repayment, but it is limited to the funds of the owner, so if the owner's funds are limited, so are the funds of the business. (Capital contributions can also have a negative effect on the Return on Owner's Investment, but more on this in Chapter 18.)

Ethical considerations

Minimising cash outflows

In order to minimise its cash outflows, a business might:

- **reduce expenses**

Almost all actions to reduce expenses would have a flow-on effect to reduce cash payments and lead to more cash retained on hand. (The exceptions might be Inventory losses and Inventory write-downs, which do not involve a flow of cash. However, if these expenses reduce, there may be a reduction in purchases of inventory and consequently the cash payments they require.)

Lower expenses may, however, have negative consequences for sales, especially for expenses like Cost of Sales (due to poorer quality inventory), wages (due to fewer staff on hand to serve customers or staff with fewer years of experience) or advertising. And unethical behaviour in cutting costs – dangerously or dishonestly – can in the end cost more rather than less.

- **utilise the credit terms offered by suppliers**

Slower payments to Accounts Payable will mean cash is retained for longer and then is able to be used to meet other payments. It may mean discounts are lost, and although payments are later, they are higher, but provided the credit terms are not exceeded, this can be a useful strategy for managing cash outflows.

- **reduce cash drawings or loan repayments**

If the owner can reduce what they withdraw from the business, this will leave more cash to meet other payments. (However, Drawings may be providing a 'wage' for the owner, and it may not be possible to live on a reduced amount.)

- **defer purchases of non-current assets**

In some cases, it may be possible to 'put off' cash payments until the firm's cash position improves, leaving cash to be used for other purposes. This benefit must be weighed against the cost of not having the asset (which might otherwise be generating sales and cash) or, in the case of a loan (which is not repaid), a higher interest charge.

- **organise a bank overdraft**

Many businesses operate with a bank overdraft to help them manage times when cash is scarce. The cost of interest is a consideration, but the flexibility of an overdraft can be an important tool for meeting cash requirements.

Other **non-financial information** can also be important in managing cash. For example:

- the number of expected sales in the next period might affect whether the business is adventurous or cautious with the amount of cash it keeps on hand
- the credit rating of a particular Account Receivable might affect the credit terms offered and the strictness and speed with which they are enforced
- the length and strength of a relationship with a particular Account Payable might affect how quickly debts are paid
- the age of existing assets might affect how quickly a new asset is purchased.

Many of the **ethical considerations** in generating profit also apply to the cash flows that follow, but purchases from and payments to Accounts Payable, and sales to and receipts from Accounts Receivable have their own ethical dimensions (see Chapters 5 and 6).

Generating cash from the sale of banned or dangerous goods, or minimising cash outflows by using suppliers who do not meet legal standards (for example, in waste disposal), generate social and environmental costs and are not only unethical but, in certain cases, illegal.

Ethical considerations

Ethical considerations

Similarly, while tax minimisation may fall within the boundaries of the law, tax *avoidance* does not. Businesses are obliged to pay their fair share of tax, and activities like keeping a second, 'secret' set of accounts designed to 'hide' sales (and the GST tax obligations they generate) must be actively discouraged by the Accountant.



Review questions 11.3

- 1 **Explain** how a Cash Flow Statement can be used by a business to assess its cash performance.
- 2 **Explain** how a Cash Flow Statement can be used by a business to plan for future cash activities.
- 3 **List** five strategies that might be used to generate more cash inflows.
- 4 **List** five strategies that might be used to minimise cash outflows.
- 5 **List** three pieces of non-financial information that might inform the management of cash.
- 6 **Explain** why a business must record and report its cash sales in an ethical manner.

Ethical considerations



11.4 Financial indicators

Liquidity refers to the ability of the firm to generate cash so that it can meet its short-term debts as they fall due. As the main resource used to meet these debts, the level of cash on hand is a key determinant of a firm's liquidity, but there are other factors to consider. For example, a firm with little cash on hand may have no liquidity problems if its short-term obligations are also low, and a business that has little cash on hand but can generate cash quickly might also be said to be highly liquid.

In essence then, liquidity is not measured by reference to one 'amount' of cash on hand, but by considering all of the sources of liquid funds available to the business and then comparing them against its current obligations. This will be explored in detail in Chapter 19, but it is worth considering here one of the indicators that can be used to assess liquidity.

Cash Flow Cover

Cash Flow Cover (CFC) assesses liquidity by comparing the Net Cash Flows from Operating Activities against the current liabilities that the firm will have to meet. Specifically, it measures the number of times average current liabilities can be met using the Net Cash Flows from Operating Activities.

Cash Flow Cover (CFC)

a liquidity indicator that measures the number of times Net Cash Flows from Operating Activities is able to cover average current liabilities

Cash Flow Cover is calculated as shown in Figure 11.5:

Figure 11.5 Formula: Cash Flow Cover

$$\text{Cash Flow Cover (CFC)} = \frac{\text{Net Cash Flows from Operating Activities}}{\text{Average current liabilities}}$$

A high Cash Flow Cover means that the cash generated by Operating activities can cover current liabilities a large number of times, meaning the business has good liquidity and should be able to meet its short-term debts as they fall due.

Example

OBM sells office equipment and has provided the following information relating to its cash performance for July 2030:

Net Cash Flows from Operating Activities	\$105 000
Current liabilities as at 1 July 2030	\$59 000
Current liabilities as at 31 July 2030	\$61 000

The Cash Flow Cover of OBM would be calculated as shown in Figure 11.6:

Figure 11.6 Calculation: Cash Flow Cover

$$\begin{aligned}
 \text{Cash Flow Cover (CFC)} &= \frac{\text{Net Cash Flows from Operating Activities}}{\text{Average current liabilities}} \\
 &= \frac{\$105\,000}{(\$59\,000 + \$61\,000) / 2} \\
 &= \frac{\$105\,000}{\$60\,000} \\
 &= 1.75 \text{ times}
 \end{aligned}$$

This Cash Flow Cover indicates that Net Cash Flows from Operating Activities can cover average current liabilities **1.75 times**. In general, an increase in this indicator suggests liquidity has improved while a decrease suggests it has worsened, and the longer the period being examined, the more times the business would expect the average current liabilities to be covered.

There is no set benchmark at which the Cash Flow Cover would be considered satisfactory. However, it can be compared against the Cash Flow Cover from *previous periods*, *budgeted performance* and *competitors' performance* (industry averages) to determine whether it has improved or worsened.



Review questions 11.4

- 1 State** what is measured by the Cash Flow Cover (CFC).
- 2 Show** the formula to calculate the Cash Flow Cover.
- 3 Explain** what is indicated by an increase in the Cash Flow Cover.
- 4 State** three benchmarks that could be used to assess the adequacy of the Cash Flow Cover.



11.5 Cash versus profit

The introduction to this chapter highlighted the fact that many profitable small businesses still end up failing, largely due to an inability to manage cash effectively. It is all too common to hear of businesses that are selling their products at a profit but end up being unable to pay their debts because they can't manage their cash, and ultimately end up going out of business.

But how can this be? How can a firm that is earning a profit suffer from a lack of cash to pay its bills? Conversely, how can a firm that is trading at a loss still boast a healthy bank balance?

The simple answer is that cash and profit are different resources, and business owners need to understand this difference in order to manage both effectively. The change in a firm's bank balance is calculated by comparing **cash inflows** and **cash outflows** in a period, whereas profit is determined by comparing **revenues earned** and **expenses incurred** in that period and, as we have seen a number of times, these items are not necessarily the same. The main differences are:

- some **cash** items do not affect **profit**
- some **profit items** do not affect **cash**
- some items affect both cash and profit, but by differing amounts.

Study tip

Although these are the general reasons why cash and profit performance may differ, they are not nearly specific enough in an exam situation. Refer to the specific examples in Section 11.5.

Cash items that do not affect profit

Some items are reported only in the **Cash Flow Statement**, as they only affect cash on hand; because they are not revenues or expenses, they are not reported in the Income Statement:

- **Some cash inflows are not revenues.**

Capital contributions and **loans received** are cash inflows that increase Bank, but they are **not** revenues and so have no effect on profit. Items such as these will explain why a firm has been able to generate an increase in its cash balance even if it has incurred a Net Loss.

- **Some cash outflows are not expenses.**

Cash drawings, **loan repayments** and **cash purchases of non-current assets** are payments that will decrease Bank, but they are **not** expenses and so leave profit unchanged. This may explain why a firm has suffered a decrease in cash despite earning a profit.

- **GST cash flows are not revenues or expenses.**

In the case of GST cash flows, if the total **GST received** (including any GST refund) is greater than the total **GST paid** (including any GST settlement), there will be an increase in cash; if the opposite occurs, there will be a decrease in cash. In either case, there will be no effect on profit, as GST is neither a revenue nor an expense.

Cash inflows that are not revenues	Cash outflows that are not expenses
Capital contribution	Cash drawings
Loan received	Loan repayments
	Cash payments for non-current assets
GST received (including GST refund)	GST paid (including GST settlement)

Study tip

Except for GST, these differences would be reported as either Investing or Financing activities in the Cash Flow Statement: this is the first place to start when looking for reasons why cash and profit results are different.

Study tip

More examples of this kind will come to light throughout Unit 4.

Profit items that do not affect cash

Just as some items are reported only in the Cash Flow Statement, other items are reported only in the **Income Statement**:

- **Some revenues are not cash inflows.**

Inventory gain is a good example, as it is a revenue that increases profit, but as it represents a gain of inventory, not cash, it will **not** affect cash on hand. This may explain why a firm can earn a profit but still suffer a decrease in cash.

- **Some expenses are not cash outflows.**

Inventory loss and **Inventory write-down** are expenses that will decrease profit, but as they are **not** cash outflows will not affect cash on hand. Expenses such as these may explain why a firm can generate more cash without earning a profit.

Revenues that are not cash inflows	Expenses that are not cash outflows
Inventory gain	Inventory loss
	Inventory write-down

Items that affect both profit and cash, but by different amounts

We have so far considered items that affect one report, but not the other; that is, they have an effect on **cash** or an effect on **profit** but not *both*. But many items affect both cash and profit. Where the item affects both, but by *differing amounts*, the firm's profit will not be the same as its cash performance:

- **Credit sales and receipts from Accounts Receivable**

Credit sales will increase profit immediately, but it may not involve a cash flow until much later. Conversely, **cash received from Accounts Receivable** will increase Bank, but it is not revenue. Thus, the different amounts reported as Credit sales and receipts from Accounts Receivable could explain why cash and profit are not the same:

- If **Credit sales** is **greater** than **receipts from Accounts Receivable**, the firm may have more profit than cash.
- If **Credit sales** is **less than** **receipts from Accounts Receivable**, the firm may have more cash than profit.

- **Cost of Sales and cash paid for inventory**

The way inventory is paid for can also mean that cash and profit are not the same. **Cost of Sales** represents the expense incurred when inventory is sold, but this may not be the same as the amount of **cash paid for inventory** as cash purchases or payments to Accounts Payable:

- If **Cost of Sales** is **greater than** **cash paid for inventory**, the firm may have more cash than profit.
- If **Cost of Sales** is **less than** **cash paid for inventory**, the firm may have more profit than cash.

Revenue/expense	Cash inflow/outflow
Credit sales	Receipts from Accounts Receivable
Cost of Sales	Cash purchases of inventory
	Payments to Accounts Payable

In reality, there will usually be a combination of reasons why a firm's **cash** and **profit** performance differ.

- A firm may earn **profit** but suffer a **decrease in cash** due to:

Reason	Examples
Cash outflows that decrease cash but are not expenses and so do not affect profit	Cash drawings Loan repayments Cash payments for non-current assets Overall more GST paid than received, including GST settlement
Revenues that increase profit but are not cash inflows and so do not affect cash	Inventory gain
Revenue items that increase profit <i>more</i> than the corresponding cash inflow increases cash	Credit sales <i>greater</i> than receipts from Accounts Receivable
Expense items that decrease profit <i>less</i> than the corresponding cash outflow decreases cash	Cost of Sales <i>less</i> than cash paid for inventory

- A firm may suffer a **loss** but generate an increase in cash due to:

Reason	Examples
Cash inflows that increase cash but are not revenues and so do not affect profit	Capital contribution Loan received Overall more GST received than paid (including GST refund)
Expenses that decrease profit but are not cash outflows and so do not affect cash	Inventory loss Inventory write-down
Revenue items that increase profit <i>less</i> than the corresponding cash inflow increases cash	Credit sales <i>less</i> than receipts from Accounts Receivable
Expense items that decrease profit <i>more</i> than the corresponding cash outflow decreases cash	Cost of Sales <i>greater</i> than payments for inventory

Study tip

When looking for reasons to explain the difference between cash and profit performance, look for opposites: capital contribution versus drawings; loan received versus repaid; inventory loss versus gain.



Review questions 11.5

- Identify** the three main reasons why the change in a firm's cash position may be different from its profit over the same period.
- Identify** two cash inflows that are **not** revenues. **Explain** the effect these items will have on both cash and profit.
- Identify** three cash outflows that are **not** expenses. **Explain** the effect these items will have on both cash and profit.
- Explain** how an inventory gain may be the reason why a firm can earn a profit, despite suffering a decrease in cash.
- Identify** two items that will be reported as expenses in the Income Statement but will **not** be reported as cash outflows in the Cash Flow Statement.
- Explain** how cash and profit will differ if:
 - Credit sales is *greater* than receipts from Accounts Receivable
 - Credit sales is *less* than receipts from Accounts Receivable
 - Cost of Sales is *greater* than cash paid for inventory
 - Cost of Sales is *less* than cash paid for inventory.



Where have we been?

- The Statement of Receipts and Payments reports cash received and paid, and the change in the firm's bank balance over a Period.
- The Cash Flow Statement reports cash inflows and cash outflows relating to Operating activities, Investing activities and Financing activities, and the change in the firm's cash balance over a Period.
- Operating activities are cash flows related to day-to-day trading activities.
- Investing activities are cash flows related to the purchase and sale of non-current assets.
- Financing activities are cash flows related to changes in the financial structure of the firm.
- The Cash Flow Statement is used to aid decision-making and planning.
- Cash Flow Cover (CFC) measures how many times average current liabilities can be 'met' by Net Cash Flows from Operating Activities.
- Cash and profit are different measures of performance, and there are many possible reasons why a firm that is earning a profit can still suffer from a lack of cash:
 - Some cash inflows are not revenues.
 - Some cash outflows are not expenses.
 - Some revenues are not cash inflows.
 - Some expenses are not cash outflows.
 - Some items affect both cash and profit, but by differing amounts.



Exercises

Please note: asterisks indicate that an answer for that question is available in the Selected Answers section at the end of this book.



Exercise 11.1 Statement of Receipts and Payments

Crafty Cabinets has provided the following information relating to its cash transactions for July 2030:



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Cash Receipts	\$	Cash Payments	\$
Cash sales	100 000	Payments to Accounts Payable	70 000
Receipts from Accounts Receivable	50 000	Electricity	2 400
GST received	10 000	Interest	600
Capital contribution	15 000	Office expenses	5 000
		Wages	30 000
		Purchase of equipment	5 600
		Drawings	40 000
		GST paid	3 100
		Loan repayment	6 000
		Rent	18 000

Additional information:

- The bank balance of Crafty Cabinets as at 30 June 2030 was \$8 600 DR.
- Rent is paid in advance in July each year.

Required

- Complete** the Bank account in the General Ledger of Crafty Cabinets as at 31 July 2030. Transaction dates are **not** required.
- Prepare** a Statement of Receipts and Payments for Crafty Cabinets for July 2030.
- State** one reason why the owner would be unhappy with the cash performance of the firm during July 2030.
- Explain** one way to improve the information reported to the owner about the firm's cash performance.





Exercise 11.2
Cash Flow Statement

Boof Hair Care Products has provided its Bank account from its General Ledger as at 30 June 2030:



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General Ledger Bank					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
	Capital	10 000	July 1	Balance	13 500
	Sales / GST Clearing	55 000		Electricity / GST Clearing	1 650
	Accounts Receivable	25 000		Accounts Payable	24 000
				Insurance / GST Clearing	1 980
				Wages	28 000
				Drawings	12 000
				Display cabinets / GST Clearing	6 600
			June 30	Balance	2 270
		90 000			90 000
July 1	Balance	2 270			

* Transaction dates not provided.

Required

- a. Calculate GST paid for the year ended 30 June 2030.
- * b. Prepare a Cash Flow Statement for Boof Hair Care Products for the year ended 30 June 2030.
- c. Referring to your answer to part b, explain your treatment of Drawings.
- d. Suggest one reason why the owner may have made the capital contribution of \$10 000.
- e. Explain one benefit of preparing a Cash Flow Statement rather than a Statement of Receipts and Payments.





Exercise 11.3

Cash Flow Statement

Flip Flops specialises in the sales of thongs, and its Bank account for the quarter ending 30 September 2030 showed the following:



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General Ledger Bank					
Date *	Cross-reference	Amount \$	Date *	Cross-reference	Amount \$
July 1	Balance	1 500		Inventory / GST Clearing	5 500
	Loan – Bodgey Bank	25 000		Loan	1 000
	Sales / GST Clearing	11 000		Electricity / GST Clearing	550
	Accounts Receivable	7 000		Accounts Payable	14 000
				Rent/GST Clearing	2 640
				Wages	6 000
				Drawings	2 000
				Shelving / GST Clearing	1 760
				Interest expense	550
			Sept. 30	Balance	10 500
		44 500			44 500
Oct. 1	Balance	10 500			

*Transaction dates not provided.

The owner, Karl Winefeld, is happy that the bank balance has increased so much over the quarter.

Required

- Calculate** GST paid for the quarter ended 30 September 2030.
- * **Prepare** a Cash Flow Statement for Flip Flops for the quarter ended 30 September 2030.
- Construct** a bar graph to show the Net Cash Flows from Operating, Investing and Financing Activities for Flip Flops for the quarter ended 30 September 2030.
- Discuss** whether the owner should be happy with the firm's cash performance for the quarter ended 30 September 2030.
- Explain** two actions the owner could take to improve the cash performance of Flip Flops.





Exercise 11.4
Operating activities

Katherine Quinn owns Mighty Winds, a shop specialising in electric fans, and has provided the following data from the firm’s financial records for 2030:

	\$		\$
GST paid	380	Cash sales	60 000
Loan repayment – principal	12 000	Interest paid	1 850
Electricity paid	1 200	GST received	6 000
Discount expense	2 400	Wages owing	1 600
Wages paid	6 000	GST on credit sales	10 000
GST settlement	3 000	Cash purchase of office furniture	2 600
Payments to Accounts Payable	45 000	Interest owing	1 700

Required

- a. **Prepare** an extract from the Cash Flow Statement to show the cash flows from Operating activities for Mighty Winds for 2030.
- b. Referring to your answer to part a, **explain** your treatment of Interest owing.
- c. **Explain** the importance of Net Cash Flows from Operating Activities to the success of a trading business.
- d. **Explain** two actions the owner of Mighty Winds could take to improve Net Cash Flows from Operating Activities.



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Exercise 11.5
Operating activities

Got It Covered sells car seat covers and has provided the following data from its financial records for April 2030:

	\$		\$
Credit sales	28 000	GST refund	300
Interest expense paid	4 800	Receipts from Accounts Receivable	15 000
Discount expense	850	Drawings	1 800
Credit purchase of inventory	32 000	Cash sales	16 000
GST on credit purchases	3 200	GST on cash sales	1 600
GST paid	1 500	Rent paid	15 000

Required

- a. **Prepare** an extract from the Cash Flow Statement to show the cash flows from Operating activities for Got It Covered for April 2030.
- b. Referring to your answer to part a, **explain** your treatment of Discount expense.
- c. **Explain** why the GST received and GST refund must be reported separately in the Cash Flow Statement.
- d. **Explain** two actions the owner of Got It Covered could take to reduce cash outflows from Operating activities.



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Exercise 11.6

Investing activities

Rag Doll Fashions has provided the following data from its financial records for the six months ending 31 December 2030:

	\$		\$
Cash sales	47 000	GST received	4 700
Cash purchase of inventory	15 000	GST paid on purchase of inventory	1 500
Cash purchase of fittings	5 600	GST paid on purchase of fittings	560
Deposit paid on furniture	800	Drawings of inventory	2 800

Required

- In terms of the Cash Flow Statement, **define** the term 'Investing activities'.
- Calculate** Net Cash Flows from Investing Activities for Rag Doll Fashions for the six months ended 31 December 2030.
- Referring to your answer to part **b**, **explain** your treatment of Cash purchase of inventory.
- Explain** why the GST paid on purchase of fittings is **not** reported as an Investing activity.
- Referring to your answer to part **b**, **discuss** whether the owner should be concerned about the Net Cash Flows from Investing Activities for Rag Doll Fashions for the six months ended 31 December 2030.



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Exercise 11.7

Investing activities

Neil Ng Enterprises has provided the following data from its financial records for November 2030:

	\$		\$
Loan repayment	12 000	Cash purchase of shelving	10 000
Interest expense	4 800	Receipt of loan	20 000
Cash purchase of vehicle	32 000	GST settlement	1 200
GST paid	5 600		

Required

- Prepare** an extract from the Cash Flow Statement to show the cash flows from Investing activities for Neil Ng Enterprises for November 2030.
- State** one reason why GST paid is greater than 10% of Net Cash Flows from Investing Activities for November 2030.
- Suggest** three ways the purchase of the new vehicle may have been financed.
- Explain** how negative Net Cash Flows from Investing Activities may lead to an increase in Net Profit.



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Exercise 11.8

Financing activities

Eden-Monaro Motors has provided the following data from its financial records for the year ended 30 June 2030:

	\$		\$
Credit sales	100 000	Interest paid	1 800
Receipt of Loan – NAB	12 000	Net Profit	16 000
Wages paid	800	Cash drawings	25 000
Payments to Accounts Payable	35 000	Drawings of inventory	700

Required

- In terms of the Cash Flow Statement, **define** the term 'Financing activities'.
- Calculate** Net Cash Flows from Financing Activities for Eden-Monaro Motors for the year ended 30 June 2030.
- Referring to your answer to part **b**, **explain** your treatment of Interest paid.
- Given that at 1 July 2029 the Capital account had a balance of \$48 000, **complete** the Capital account in the General Ledger of Eden-Monaro Motors as at 30 June 2030.



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Exercise 11.9

Financing activities

Flash Dance Wear has provided the following data from its financial reports for the six months ended 31 December 2030:

	\$		\$
Repayment of loan principal	15 000	Cash sales	50 000
Cash drawings	8 700	Cash purchase of shop fittings	6 500
Receipts from Accounts Receivable	20 000	Cash contribution by owner	30 000
Credit purchase of inventory	32 000	Contribution of vehicle by owner	3 800

Required

- Referring to one Qualitative characteristic, **explain** how the valuation of the vehicle contributed by the owner would have been determined.
- Prepare** an extract from the Cash Flow Statement to show the cash flows from Financing activities for Flash Dance Wear for the six months ended 31 December 2030.
- Explain** why a capital contribution is **not** reported in the Income Statement.
- Explain** how positive Net Cash Flows from Financing Activities may lead to a reduction in Net Profit.



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Exercise 11.10

Cash Flow Cover

Hales Kitchens sells kitchen items and has provided the following information relating to its cash performance for April 2030:

Net Cash Flows from Operating Activities	\$120 000
Current liabilities as at 1 April 2030	\$42 000
Current liabilities as at 30 April 2030	\$38 000



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Additional information:

- The Cash Flow Cover of Hales Kitchens for March 2030 was 2.4 times, and its budgeted Cash Flow Cover for April 2030 was 3.6 times.
- As at 30 April 2030, Hales Kitchens had a bank overdraft of \$7 800.

Required

- Calculate** the Cash Flow Cover of Hales Kitchens for April 2030.
- Suggest** one possible reason for the change in the Cash Flow Cover of Hales Kitchens from March to April 2030.
- Explain** one reason why the owner would be satisfied with the Cash Flow Cover for April 2030.
- Explain** one reason why the owner would **not** be satisfied with the Cash Flow Cover for April 2030.
- Discuss** whether Hales Kitchens will be able to meet its short-term debts as they fall due.

**Exercise 11.11****Cash versus profit**

Buzz Wax Products has provided the following extract from its General Ledger for August 2030:



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General Ledger Bank					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
	Accounts Receivable	?	Aug. 1	Balance	2 500
	Sales / GST Clearing	11 000		Accounts Payable	4 300
	Capital	5 000		Inventory / GST Clearing	3 300
				Wages	5 000
				Computer / GST Clearing	1 100
				Drawings	2 450
				Interest expense	750

Additional information:

- During the period a 10% settlement discount worth \$410 was given to Accounts Receivable.
- Credit sales for the period was \$2 000 plus GST.
- Cost of Sales for the period was \$4 500.
- During August 2030, the business incurred a Net Loss of \$1 650.

Required

- Calculate** GST paid for August 2030.
- Calculate** cash received from Accounts Receivable for August 2030.
- * **Prepare** a Cash Flow Statement for Buzz Wax Products for August 2030.
- Referring to your answer to part **c**, **explain** why the owner should be concerned about the firm's cash position but not about its cash performance for August 2030.
- Identify** two examples from the Cash Flow Statement that explain how Buzz Wax Products was able to record an increase in cash despite suffering a Net Loss. **Explain** your response.
- Explain** how the Cash Flow Statement can aid decision-making.

**Exercise 11.12****Cash versus profit**

Saw Miller Furniture has provided the following extract from its General Ledger for the quarter ended 30 June 2030:



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General Ledger Bank					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Apr.	Accounts Receivable	36 500	Apr. 1	Balance	1 600
	Sales / GST Clearing	27 500		Inventory / GST Clearing	44 770
	Capital	6 000		Admin. exp. / GST Clearing	3 300
	Loan – GIN Bank	20 000		Wages	11 900
				Equipment / GST Clearing	15 180
				Drawings	13 500
				Insurance / GST Clearing	6 600
				Loan – GIN Bank	1 100

Additional information:

- All inventory is purchased using cash.
- Accounts Receivable were granted a settlement discount of \$1 500.
- Credit sales for the period was \$24 200 (including GST).
- Cost of Sales for the period was \$23 500.
- The business has negotiated an overdraft limit of \$8 000.
- The average current liabilities of Saw Miller Furniture for the quarter ended 30 June 2030 was \$8 000.
- The Cash Flow Cover for Saw Miller Furniture for the previous quarter was –4.3 times.

Required

- State** whether the balance of Accounts Receivable as at 30 June 2030 would be higher or lower than the balance as at 1 April 2030. **Justify** your answer.
- Calculate** GST paid for the quarter ended 30 June 2030.
- * **Prepare** a Cash Flow Statement for Saw Miller Furniture for the quarter ended 30 June 2030.
- State** why the owner had to contribute additional capital during the quarter.
- Saw Miller Furniture reported a profit of \$6 200 for the quarter ended 30 June 2030. Using two examples other than drawings, **explain** how Saw Miller Furniture was able to earn a Net Profit despite a significant fall in cash during the same period.
- Calculate** the Cash Flow Cover of Saw Miller Furniture for the quarter ended 30 June 2030.
- Referring to your answer to part **f**, **explain** whether the liquidity of Saw Miller Furniture has improved or worsened.
- Explain** two actions the owner could take to improve the cash performance of Saw Miller Furniture.



Exercise 11.13

Cash versus profit

Full Collection commenced business on 1 January 2030 when the owner deposited \$20 000 into the business bank account.

On the same day a bank loan of \$50 000 was received from the Kyneton Bank. Interest on the loan is 6% per annum, and repayments of interest and principal will occur on the first of every month, beginning on 1 February 2030.

During January 2030 the following transactions occurred:

- A warehouse was rented, and six months' rent was paid in advance, totalling \$6 600 including GST.
- \$7 000 (plus GST) was paid for office equipment.
- All sales are on credit at a mark-up of 100%. During January 2030, the business invoiced customers for \$40 000 (plus GST).
- As at 31 January 2030, \$15 000 of this was still owing.
- Inventory is purchased on credit and paid for in the month following purchase.
- Wages of \$15 000 were paid.
- Cartage in of \$4 400 (including) GST was paid.
- Advertising worth \$1 000 (plus GST) will be carried out in February 2030.
- Drawings were \$8 000, consisting of \$7 500 cash and \$500 worth of inventory.

Required

- Calculate** GST paid for January 2030.
- Prepare** a Cash Flow Statement for Full Collection for January 2030.
- Prepare** an Income Statement for Full Collection for January 2030.
- Explain**, providing two examples, why Full Collection made a Net Loss yet at the same time generated an increase in cash for January 2030.
- Discuss** the performance of Full Collection for January 2030.

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Exercise 11.14

Cash flows

Giacomo Batusta owns The Glass House, a firm that sells glassware from a shop at Watergardens Shopping Centre, and has provided the following information for October 2030:

- \$5 700 was paid to Accounts Payable, earning discount revenue of \$300.
- Cash sales was \$6 700 (plus GST)
- A GST refund of \$500 was received on 3 October 2030.
- Accounts Receivable owed \$5 600 and paid in full, receiving a \$400 settlement discount.
- Cost of Sales for the period was \$1 800.
- Cash purchases of inventory was \$3 190 (including GST).
- Wages paid was \$1 000.
- Interest expense of \$100 was paid.
- Cash drawings for the period was \$2 110.
- New shelving worth \$1 600 (plus GST) was purchased by EFT.
- As at 31 October 2030, the firm's bank account was \$560 overdrawn.



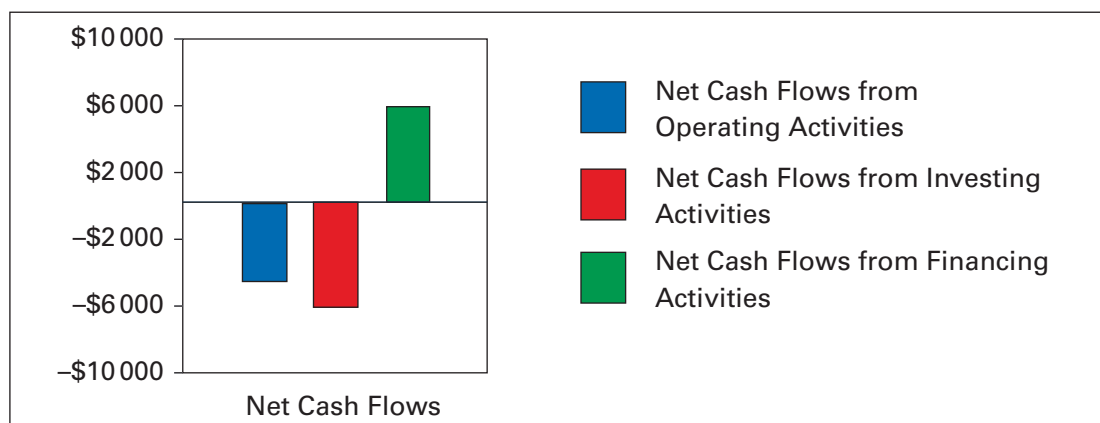
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Required

- a. **Calculate** the total decrease in the Accounts Payable balance for October 2030.
- b. **Calculate** GST paid for October 2030.
- * c. **Prepare** a Cash Flow Statement for The Glass House for October 2030.
- * d. **Complete** the Bank account in the General Ledger of The Glass House as at 31 October 2030. Transaction dates are **not** required.
- e. Giacomo is concerned that the bank overdraft has increased despite the business generating positive Net Cash Flows from Operating Activities. **Explain**, giving two examples from the Cash Flow Statement, how this occurred.
- f. **Explain** one action the owner could take to improve the firm's cash performance without changing its Net Cash Flows from Operating Activities.

Giacomo provided the following graph representing the firm's cash activities for November 2030:



- g. **State** whether the firm's bank balance increased or decreased during November 2030. **Justify** your answer.
- h. **Explain** one reason why Giacomo should be concerned about the firm's Net Cash Flows from Operating Activities for November 2030.
- i. **Explain** two actions the owner could take to improve Net Cash Flows from Operating Activities without changing cash sales.
- j. **Discuss** whether Giacomo should be concerned about the firm's Net Cash Flows from Investing Activities for November 2030.

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Exercise 11.15

Cash versus profit

Ruby Ice owns Bling Rings, a jewellery store and has provided the following information for the year ended 30 June 2030:

- As at 1 July 2029, the firm had a bank balance of \$30 000 DR, the balance of Accounts Receivable was \$35 000 DR and \$1 100 was owed to the ATO.
- All sales and purchases are made on credit. Credit sales for the period was \$198 000 (including GST) but Sales returns was \$1 500 (plus GST). All sales are marked up 100%.
- Receipts from Accounts Receivable amounted to \$170 280 and a Discount expense of \$1 720 was incurred.
- The balance of Accounts Payable decreased by \$127 100 including a settlement discount of \$1 400. There were no purchase returns during the year.
- A loan for \$15 000 was taken out from QZ FinCo and used to purchase display cabinets worth \$8 000 (plus GST).
- A payment was made to the ATO to settle the GST liability owing at the start of the period.
- \$13 500 cash was withdrawn by the owner for her private use.
- The following expenses were paid:

– Wages	\$34 500
– Administration expenses	\$1 000 (plus GST)
– Rent expense	\$11 000 (plus GST)
– Insurance	\$4 620 (including GST)
– Interest expense	\$3 000

Required

- a. **Explain** how the decision to make all sales on credit affects the cash cycle of Bling Rings.
- b. **Calculate** the percentage discount granted to Accounts Receivable.
- c. **Calculate** GST paid (to suppliers) for the year ended 30 June 2030.
- d. **Calculate** cash paid to Accounts Payable for the year ended 30 June 2030.
- e. **Complete** the Accounts Receivable account in the General Ledger of Bling Rings as at 30 June 2030. Transaction dates are **not** required.
- * f. **Prepare** a Cash Flow Statement for Bling Rings for the year ended 30 June 2030.
- g. Using two examples, **explain** how Bling Rings was able to earn a Net Profit despite suffering negative Net Cash Flows from Operating Activities.
- h. **Explain** one action the owner could take to improve both Net Cash Flows from Operating Activities and Accounts Receivable Turnover.

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Chapter 12

Balance day adjustments: bad and doubtful debts



Learning intentions

After completing this chapter, you should be able to:

- **define** and **identify** revenue, expenses and profit
- **explain** how the Period, Going concern and Accrual basis assumptions and the Qualitative characteristic of Relevance affect the calculation of profit
- **define** the term 'balance day adjustment'
- **explain** the purpose of a balance day adjustment
- **distinguish** between doubtful debts and bad debts
- **explain** how the Period and Accrual basis assumptions create a need to allow for doubtful debts
- **record** the creation of an allowance for doubtful debts in the General Journal and General Ledger
- **explain** the circumstances in which a debt will be written off as 'bad'
- **record** the writing off of a bad debt in the General Journal and General Ledger
- **explain** the effect on the Accounting equation of bad debts and allowances for doubtful debts
- **report** bad debts expense in the Income Statement and Allowance for doubtful debts in the Balance Sheet
- **discuss** ethical considerations in relation to recording, reporting and decision-making.

Key terms

After completing this chapter, you should be familiar with the following terms:

- balance day adjustment (BDA)
- bad debt
- doubtful debt
- Accounts Receivable Ageing Analysis
- Allowance for doubtful debts.



12.1 The need for balance day adjustments

Chapter 1 introduced the four Accounting assumptions that influence the way Accounting information is generated. The Going concern assumption states that reports are prepared on the assumption that the business will continue to operate into the future, and this allowed for the recognition of assets that would produce economic benefits and liabilities that were expected to be settled in the future.

At the same time, the need to determine profit led to the adoption of the Period assumption, which states that reports are prepared for a period of time, and only those revenues and expenses occurring within that Period should be used to calculate profit. With this in mind, Chapter 10 introduced the idea of closing the ledger in order to calculate profit for the current Period. Revenues and expenses from outside the current Period were excluded, as were other non-revenue or non-expense items.

This chapter goes one step further, to consider whether, before closing, the amounts recorded in the General Ledger accounts provide a complete and accurate picture of the revenues earned and expenses incurred in the current Period.

Revenues and expenses

Chapter 1 outlined the definitions of revenues and expenses:

- Revenues: increases in assets or decreases in liabilities that result in increases in owner's equity, other than those relating to contributions from the owner.
- Expenses: decreases in assets or increases in liabilities that result in decreases in owner's equity, other than those relating to distributions to the owner.

Note that neither definition refers to cash, meaning the movement of cash (and a change in Bank) is not required for an item to be recognised as a revenue or expense.

For revenues, the asset that increases *may* be Bank (for a cash sale) but does not have to be; it could be Accounts Receivable (for a credit sale) or some other asset, such as Inventory (for an inventory gain). With discount revenue, there is actually no change in assets at all: it is the result of a decrease in liabilities (Accounts Payable). This means that revenue is recognised when the assets increase or the liabilities decrease; that is, when the revenue is *earned*, and this is usually at point of sale.

For expenses, the decrease in assets *may* be Bank (for cash expenses), but equally it may be Accounts Receivable (for discount expense) or Inventory (for an inventory loss). This means expenses are recognised when the assets decrease or the liabilities increase; that is, when the expense is *incurred* – when the goods or services have been consumed.

As a result of applying these definitions, and the Going concern and Period assumptions, profit under the Accrual basis assumption is calculated as revenues earned less expenses incurred for the current Period.

Balance day adjustments

In Chapter 10, the unspoken assumption we made before closing the ledger was that the revenue accounts already showed the amount *earned* and expense accounts already showed the amount *incurred*. Thus, when we calculated profit, we assumed it would be the correct figure.

Unfortunately, this is not always the case. If at balance day (the end of the Period) there is revenue that has been **earned but not yet received** (such as interest revenue still owing to the business), this will *not* appear in the revenue accounts even though it

should be used to calculate profit for the current Period. At the same time, revenue that has been **received but not yet earned** (like deposits on future sales) *will* appear in the revenue accounts, even though it *should not* be used to calculate profit for the current Period.

Similarly, if there are expenses that have been **incurred but not yet paid** (such as electricity that has been consumed but will not be paid for until the next period), this *will not* appear in the expense accounts even though it *should* be used to calculate profit for the current Period; whereas expenses that have been **paid but not yet incurred** (like rent paid in advance) *will* appear in the ledger accounts, even though they *should not* be used to calculate profit for the current Period.

If any of these circumstances existed, closing the ledger calculation would allow for the calculation of profit, but that profit would be inaccurate.

In situations such as these, a **balance day adjustment (BDA)** is necessary to change (or adjust) the ledger accounts so that the revenue accounts include all, and only, **revenues earned** and the expense accounts include all, and only, **expenses incurred** in the current Period. This will ensure that closing the ledger will not only allow for the calculation of profit, but also that the profit figure will be accurate.

Balance day adjustments are made to ensure that profit is calculated accurately by matching revenues earned against expenses incurred in the current Period. As a result, they ensure *Relevance* in the Accounting reports by ensuring that the Income Statement (and, for that matter, the Balance Sheet) includes all information that is capable of making a difference to decision-making while excluding information that is not (such as revenue earned or expenses incurred outside the current Period).

Study tip

Expenses should be recognised when they are incurred. This is like saying they should be recognised when they are 'used up' or consumed.

balance day adjustment (BDA)

a change made to a revenue or expense account on balance day so that revenue accounts show revenues earned and expense accounts show expenses incurred in a particular Period

Types of balance day adjustments

The balance day adjustments covered in this course refer to both revenues and expenses, including:

- inventory losses and gains (already covered in Chapter 8)
- bad debts (this chapter)
- prepaid expenses and Accrued expenses (Chapter 13)
- depreciation (Chapters 14 and 15)
- unearned revenue and accrued revenue (Chapter 16).

Study tip

Adjusting entries must be made before closing entries (ABC: Adjust Before Closing).



Review questions 12.1

- 1 Explain** how the Going concern and Period assumptions affect the calculation of profit.
- 2 Define** the following terms:
 - revenue
 - expense.
- 3 Explain** how profit is calculated under the Accrual basis assumption.
- 4 Explain** why profit may be inaccurate if balance day adjustments are not recorded.
- 5 Explain** the purpose of a balance day adjustment.
- 6 Explain** how balance day adjustments ensure *Relevance* in the Accounting reports.
- 7 List:**
 - five balance day adjustments that relate to expenses
 - three balance day adjustments that relate to revenues.



12.2 Credit sales and Accounts Receivable

For most businesses, offering credit to customers is an important means of generating sales. It allows customers to obtain goods when they do not have enough cash or when they do have cash but want to delay payment so they can use their existing cash for other purposes. As a result, making sales on credit can mean higher sales overall.

Under the Accrual basis assumption, these credit sales are recognised as revenue earned in the Period when the sale occurs, and at balance day – the end of the reporting Period – the General Ledger accounts will show the revenue earned in the current Period.

Bad debts

However, offering credit sales is not without its costs and risks. Even with the best procedures to 'screen' customers and follow up on debts that are late, businesses that sell on credit are still likely to suffer a certain number of **bad debts** – debts that must be 'written off' as irrecoverable, or uncollectable, because the Account Receivable is unable to pay. (This would usually be because the business has received confirmation that the customer is in liquidation or has been declared bankrupt.)

Strictly speaking, a bad debt should be written off once it is confirmed that the amount owing is uncollectable. At this point, bad debts should be recognised as an expense, and Accounts Receivable should be reduced by the amount that will not be collected. However, it is also useful if the bad debt expense is recorded in the same period as the credit sale, so that the business has a sense of how much it 'cost' to make that sale in the first place.

Unfortunately, not all debts are identified as being 'bad' in the Period in which the credit sale is made: in many cases it takes months before the business is able to confirm that a debt is uncollectable. This creates a dilemma for the Accountant, who will know that at least some of the credit sales from the current Period are likely to turn 'bad' (and will not be collected from Accounts Receivable) but will not know which ones, for how much or when.

bad debt

a debt that must be 'written off' as irrecoverable or uncollectable because it has been confirmed that the Account Receivable is unable to pay due to liquidation or bankruptcy

doubtful debt

a debt that is unlikely to be collected in the future but has not yet been 'written off' as it has not been confirmed that the Account Receivable is unable to pay

Study tip

Although the expense is called 'bad debts', it is actually based on the amount calculated as 'doubtful debts'.

Doubtful debts

This makes it necessary to *estimate* how much of the credit sales made in the current Period will turn 'bad' in the future. This estimate of debts that are *unlikely* to be collected in the future, but have not yet been 'written off' (as it has not been confirmed that Accounts Receivable will be unable to pay), is called **doubtful debts**.

Using this estimate, the Accountant can record a balance day adjustment to 'create' the bad debts expense to recognise the amount of Credit sales from the *current Period* that is unlikely to be collected in *future Periods*. This allows the bad debts expense to be recognised *in the Period in which the credit sale is made*, thereby upholding the Accrual basis assumption and ensuring that profit is calculated accurately by matching the expense incurred (bad debt) in the same Period as the revenue earned (Credit sale).

Verifiability, Faithful representation and Relevance

Because it is an estimate, and there will be no source document to prove its accuracy, the amount calculated as doubtful debts will not be *Verifiable*. However, using this amount to record bad debts expense will be *less inaccurate* than not reporting any bad debts at all until the Accounts Receivable is confirmed as being bankrupt.

Further, estimating doubtful debts, and recording the balance day adjustment for bad debts expense, ensures that the Income Statement and Balance Sheet provide a more *Faithful representation* of the firm's performance and position, and that the owner has all *Relevant* information that may affect decision-making.

Indeed, it may be argued that omitting the effects of bad debts expense from the Income Statement and Balance Sheet is actually unethical, as it would mean the reports would represent the firm's profit and position in a more favourable light, but one that was ultimately inaccurate. The reports would in effect be misleading, so any decisions made based on the information they contained could be false and ultimately damaging to the business and its owner.

Ethical considerations



Review questions 12.2

- 1 **Explain** why many businesses offer credit terms.
- 2 Referring to the definitions of the Elements of the reports, **explain** why a credit sale is recognised as revenue.
- 3 **Define** the term 'bad debt' and **describe** the circumstances in which a debt would be written off as bad.
- 4 **Define** the term 'doubtful debt'.
- 5 Referring to the Accrual basis assumption, **explain** why it is necessary to record a balance day adjustment for bad debts expense in the Period when credit sales are made.
- 6 **Explain** why a balance day adjustment for bad debts expense is not *Verifiable*.
- 7 Referring to two Qualitative characteristics, **explain** why it is necessary to recognise and report bad debts expense.
- 8 **Explain** why recognising bad debts expense in the Accounting reports is an ethical consideration.

Ethical considerations





12.3 Bad debts expense

Under Accrual accounting, bad debts expense is recognised by recording a balance day adjustment at the end of the Period in which the credit sales are made.

Example

GUR Gullible sells cleaning equipment and has provided the following balances from its General Ledger accounts at 30 September 2030:

Account	Debit \$	Credit \$
Accounts Receivable	65 000	
Sales		120 000
Sales returns	3 000	

Additional information:

- Data from previous years suggests that 2% of Net credit sales will be doubtful of collection.
- At 30 September 2030, the Accountant asked for a balance day adjustment to be recorded to recognise bad debts expense for September 2030 (Memo 103).

At this point, the General Ledger shows the credit sales (and sales returns), but there is no bad debts expense shown. It is therefore necessary to record a balance day adjustment so that the ledger accounts show:

- the **bad debts expense** incurred from credit sales made in the current Period and
- an **Accounts Receivable** balance that reflects only the amount likely to be collected in future Periods.

Calculating doubtful debts

To record the balance adjustment to create the **bad debts expense**, it is first necessary to estimate the amount that is doubtful of collection. Whilst there are other methods that can be used, in this course the amount for doubtful debts is calculated as a percentage of the firm's Net credit sales in the Period.

$$\text{Doubtful debts} = \text{Estimated rate} \times \text{Net credit sales}$$

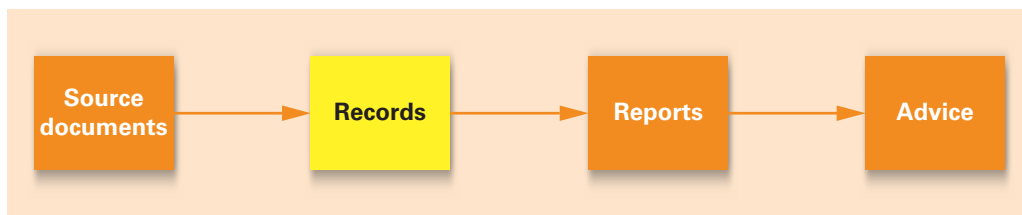
Under this Income Statement approach, the business estimates doubtful debts as a percentage of Net credit sales. Figure 12.1 shows how this would be calculated for GUR Gullible for September 2030:

Figure 12.1 Calculation: doubtful debts (Income Statement approach)

$$\begin{aligned}
 \text{Doubtful debts} &= \text{Estimated rate} \times \text{Net credit sales} \\
 &= 2\% \times (\$120\,000 - \$3\,000) \\
 &= 2\% \times \$117\,000 \\
 &= \$2\,340
 \end{aligned}$$

In this example, \$2 340 of the Net credit sales of \$117 000 is considered doubtful of collection.

Balance day adjustment: bad debts expense



Once the estimate of doubtful debts has been calculated, a balance day adjustment must be made to ensure that profit is calculated accurately by matching revenue earned against expenses incurred in the current Period.

This balance day adjustment creates a new account, **bad debts expense**, to recognise the amount incurred in the current Period, and as this amount is an expense it is recorded as a **debit** entry of \$2 340.

At the same time, Accounts Receivable must be adjusted to recognise that not all of the credit sales made in the current Period will be collected. However, because it is not confirmed which specific debts will be written off, the bad debt is not credited directly against the balance of the Accounts Receivable account. Instead, a negative asset account called **Allowance for doubtful debts** is created to record the amount of Net credit sales from the *current* Period that is expected to be written off as uncollectable at some point in a *future* Period. As a negative asset account, the **Allowance for doubtful debts** account is **credited** by \$2 340.

Figure 12.2 shows how this creation of the allowance for doubtful debts would be recorded in the General Journal:

Allowance for doubtful debts

a negative asset account that records the balance of doubtful debts (that are unlikely to be collected in the future but have not yet been written off)

Figure 12.2 General Journal: BDA – bad debts expense

General Journal			
Date	Details	Debit \$	Credit \$
Sept. 30	Bad debts	2 340	
	Allowance for doubtful debts		2 340
	Creation of Allowance for doubtful debts – 2% of Net credit sales (Memo 103)		

Note that as a balance day adjustment, the source document is **Memo 103**, indicating it is an internal adjustment rather than a transaction with another entity.

This would be posted to the General Ledger as shown in Figure 12.3:

Figure 12.3 General Ledger: BDA – bad debts expense

General Ledger Accounts Receivable (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Balance	65 000			

Allowance for doubtful debts (–A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Sept. 30	Bad debts	2 340

Bad debts (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Allowance for doubtful debts	2 340			

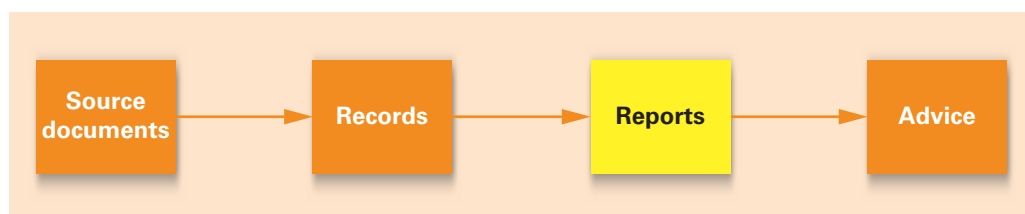
Note that the balance day adjustment does not actually change the Accounts Receivable account, as no specific debt – and indeed, no specific Account Receivable – has been written off. Instead, an estimate of what is doubtful of collection has been recorded in the **bad debts expense** account, creating an **Allowance for doubtful debts** (negative asset) in the process.

Effect on Accounting equation

The balance day adjustment to record bad debts and create the Allowance for doubtful debts thus has the following effect on the Accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Increase Allowance for doubtful debts)	2 340
Liabilities	No effect	
Owner's equity	Decrease (bad debts expense decreases Net Profit)	2 340

Reporting: bad debts expense and Allowance for doubtful debts



Income Statement

Following the recording of the balance day adjustment, the **Bad debts** account would be closed to the Profit and Loss Summary account with all other expense accounts and reported in the Income Statement under 'Other expenses', helping to ensure that the Accrual basis assumption is upheld and that profit is calculated accurately by comparing revenues earned against expenses incurred in the current Period.

Balance Sheet

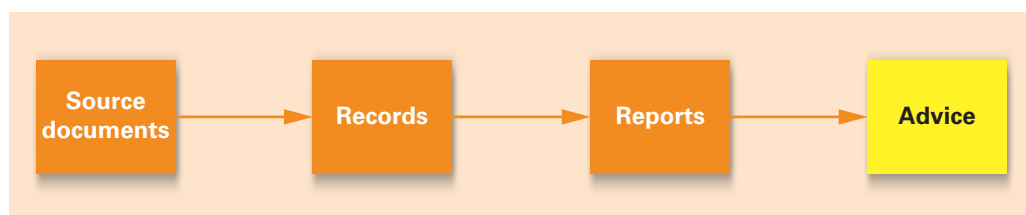
By contrast, as a negative asset account, the **Allowance for doubtful debts** would be balanced and then reported in the Balance Sheet with Accounts Receivable as shown in Figure 12.4:

Figure 12.4 Balance Sheet: Allowance for doubtful debts

GUR GULLIBLE Balance Sheet as at 30 September 2030		
	\$	\$
Current Assets		
Accounts Receivable	65 000	
less Allowance for doubtful debts	2 340	62 660

This ensures that the Balance Sheet provides a *Faithful representation* of the amount not only *owed* by Accounts Receivable, but also *likely to be received*, meaning the Balance Sheet is now both accurate and complete. In turn, this ensures that the report contains all the information that may be Relevant to decision-making.

Decision-making: bad debts expense



Given the negative effect of bad debts expense on Net Profit, businesses should do everything possible to increase the likelihood that their Accounts Receivable will in fact pay, and pay on time. This will begin before the credit sale is made in the first place, and include:

- offering discounts for quick settlement
 - sending invoices promptly
 - conducting extensive credit checks
 - sending reminder notices
 - threatening legal action
 - employing a debt collection agency
 - denying access to credit facilities
 - developing a strong relationship with each customer
 - appointing an Accounts Receivable Officer/Clerk
 - considering non-financial information
- all while acting in an ethical manner.

Study tip

See Section 6.7 for a full discussion of these strategies.



Review questions 12.3

- 1 **Show** how doubtful debts is calculated using the Income Statement approach.
- 2 Referring to one Accounting assumption, **explain** the purpose of making a balance day adjustment for bad debts.
- 3 **Explain** the role of the Allowance for doubtful debts account.
- 4 **Show** the General Journal entries to record the balance day adjustment for Bad debts expense.
- 5 **Explain** why the balance day adjustment for bad debts does **not** affect the Accounts Receivable account.
- 6 **Show** the effect on the Accounting equation of the balance day adjustment for Bad debts expense.
- 7 **Explain** how the reporting of Bad debts expense in the Income Statement upholds the Accrual basis assumption.
- 8 **Explain** how the reporting of Allowance for doubtful debts in the Balance Sheet ensures *Relevance* and *Faithful representation*.
- 9 **List** four strategies that might be used to reduce the likelihood of bad debts.

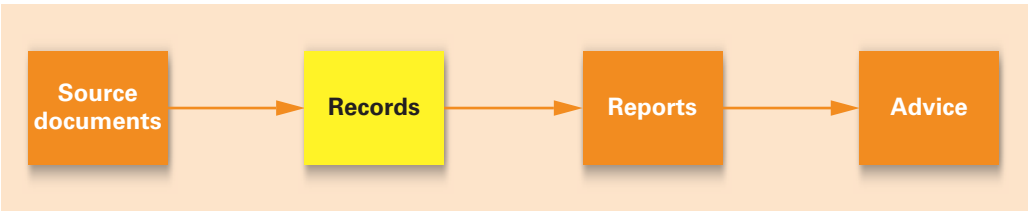
 12.4 Subsequent periods

Under the Income Statement approach to doubtful debts, bad debts expense is recognised and recorded in the Period when the credit sale is made. This means in the *next* Period, when the debt is confirmed as ‘bad’ and must be written off, there is actually no expense to record. Instead, the amount owing by the Account Receivable is reduced, and so too is the Allowance for doubtful debts (and GST Clearing).

**Example
(continued)**

During September 2030, GUR Gullible made a credit sale to I. Karntpae for goods worth \$1 500 plus GST. On 16 October 2030, GUR Gullible received notification that I. Karntpae had been declared bankrupt and would be unable to pay the \$1 650 owing. The Accountant of GUR Gullible decided to write off the debt as bad (Memo 129).

‘Writing off’ a bad debt



As the \$1 650 owing is no longer receivable from I. Karntpae, *Accounts Receivable* must be *credited* to reduce the asset. However, *bad debts* expense has already been recorded via the balance day adjustment on 30 September 2030 (i.e. in the Period when the credit sale was made), so there is no need to record the expense again. Indeed, to do so would be to double count the bad debts expense, this time *outside* the Period in which it was incurred.

Instead, the *Allowance for doubtful debts* is *debited* \$1500, thereby reducing or ‘using up’ some of the allowance created via the balance day adjustment at the end of the previous Period. (The *GST Clearing* account is also *debited* \$150 to recognise that because the cash will not be collected from the Account Receivable, it does not need to be forwarded to the ATO, so this liability decreases.)

Figure 12.5 shows the General Journal entries to record the writing off of the bad debt:

Figure 12.5 General Journal: ‘writing off’ a bad debt

General Journal			
Date	Details	Debit \$	Credit \$
Oct. 16	Allowance for doubtful debts	1 500	
	GST Clearing	150	
	Accounts Receivable *		1 650
	Debt written off as uncollectable due to bankruptcy		
	(I. Karntpae) (Memo 129)		

*If individual accounts were used this entry would need to name the Account Receivable.

This would be posted to the General Ledger as shown in Figure 12.6:

Figure 12.6 General Ledger: 'writing off' a bad debt

General Ledger Accounts Receivable (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 1	Balance	65 000	Oct. 16	Allowance for doubtful debts/GST Clearing	1 650
Allowance for doubtful debts (–A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 16	Accounts Receivable	1 500	Oct. 1	Balance	2 340
GST Clearing (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 16	Accounts Receivable	150	Oct. 1	Balance	4 500

The fact that the Allowance for doubtful debts account has a remaining balance means that the full amount of \$2 340 that was doubtful – expected to turn 'bad' – has not yet been written off, and it could be said that the amount recorded as bad debts expense at the end of September 2030 was *overstated*. However, this is only true in terms of the current Period: other debts from credit sales made in September 2030 may turn out to be uncollectable in future Periods, meaning that the estimate of doubtful debts may still prove to be correct *over the life of the business*.

Effect on Accounting equation

Although writing off a bad debt changes two assets, it does so by different amounts, leading to the following effect on the Accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Dec. Accounts Receivable \$1 650; dec. All. for doubtful debts \$1 500)	150
Liabilities	Decrease (GST Clearing)	150
Owner's equity	No effect	

Note that there is no effect on owner's equity when the debt is actually written off, as there is no expense recorded: the **bad debts** expense was recorded in the *previous* Period (when the credit sale and the balance day adjustment were made).

Accounts Receivable account

Given this entry to write off a bad debt, it is perhaps worth revisiting how the Accounts Receivable account might appear in the General Ledger. Figure 12.7 shows the entries that might appear in the Accounts Receivable account:

Figure 12.7 General Ledger: Accounts Receivable account

General Ledger Accounts Receivable (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1	Balance ¹	46 000	Jan. 8	Bank / Discount expense ³	50 530
5	Sales / GST Clearing ²	55 000	17	Sales returns / GST Clearing ⁴	5 720
			21	Allowance for	2 750
				doubtful debts / GST Clearing ⁵	
			30	Balance ⁶	42 000
		101 000			101 000
Feb. 1	Balance ⁶	42 000			

In terms of transactions and events, these entries then represent:

On the debit side	On the credit side:
1. Amount owing at start (of current Period)	3. Cash received plus Discount expense
2. Credit sales including GST	4. Sales returns including GST
	5. Bad debt written off
	6. Amount owing at end (of current Period)
Total debits	Total credits
6. Amount owing at start (of next Period)	

With the exception of the Balances, an Accounts Receivable account is likely to have more than one of each of these entries as it will make credit sales, receive cash and receive returns more than once each Period. (Hopefully, it will not have to write off bad debts too many times!) However, the cross-references would be the same, meaning the account contained a summary of all the transactions affecting all the firm’s Accounts Receivable.

Balance day adjustment: subsequent period

In the previous example (in Section 12.3), there was no existing balance in the Allowance for doubtful debts account, so the amount calculated as doubtful debts (\$2 340) was exactly the same as the amount used in the balance day adjustment to record bad debts expense and create the allowance (\$2 340). However, where there is an existing balance in the Allowance for doubtful debts account, this will affect the amount of the balance day adjustment to record the bad debts expense.

Calculating doubtful debts

As before, doubtful debts is calculated as a percentage of Net credit sales, and doubtful debts for October 2030 is shown in Figure 12.8.

The Net credit sales of GUR Gullible for October 2030 was \$123 000. Once again doubtful debts was estimated to be 2% of Net credit sales (Memo 130), and as at 31 October 2030 the balance of Accounts Receivable (before balance day adjustments) was \$72 000.

**Example
(continued)**



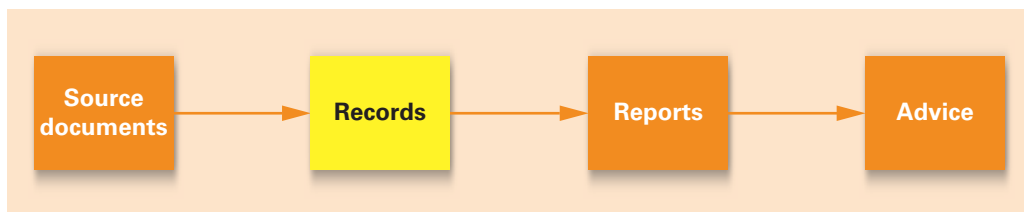
Video 12.1
Recording bad debts

Figure 12.8 Calculating doubtful debts: Income Statement approach

$$\begin{aligned}\text{Doubtful debts} &= \text{Estimated rate} \times \text{Net credit sales} \\ &= 2\% \times \$123\,000 \\ &= \$2\,460\end{aligned}$$

For October 2030, \$2 460 is considered doubtful of collection.

Balance day adjustment: bad debts expense (subsequent period)



The balance day adjustment to record **bad debts** expense must reflect the estimated **doubtful debts** for the Period, but it must also take into account any existing **balance** in the Allowance for doubtful debts account.

Figure 12.9 shows the Allowance for doubtful debts account for GUR Gullible as it would appear *prior* to the balance day adjustment for October 2030:

Figure 12.9 General Ledger: Allowance for doubtful debts – existing balance

General Ledger					
Allowance for doubtful debts (–A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 16	Accounts Receivable	1 500	Oct. 1	Balance	2 340
				840	

In this example, Net credit sales for October 2030 are expected to result in **doubtful debts** of \$2 460, but the Allowance for doubtful debts account already shows an existing **balance** of \$840. As a result, the balance day adjustment for **bad debts** expense to be recorded as at 31 October 2030 must only record the **difference** as calculated in Figure 12.10:

Figure 12.10 Calculation: bad debts expense

$$\begin{aligned}\text{Bad debts} &= \text{Doubtful debts (current Period)} - \text{Existing balance (All. for doubtful debts)} \\ &= \$2\,460 - \$840 \\ &= \$1\,620\end{aligned}$$

Study tip

Over the life of the business the correct amount of doubtful debts may still be written off as bad, but within each Period the amount recognised as bad debts may be over- or understated.

Although \$2 460 is estimated to be doubtful of collection from Net credit sales made in October 2030, the existing balance of \$840 in the Allowance for doubtful debts account means that only \$1 620 must be recorded as the balance day adjustment for bad debts expense for October 2030. That is, because bad debts expense was overstated in September 2030, it must be understated in October 2030 to compensate.

Figure 12.11 shows the balance day adjustment to record the bad debts expense and the increase in the Allowance for doubtful debts in the General Journal:

Figure 12.11 General Journal: Bad debts expense (subsequent period)

General Journal			
Date	Details	Debit \$	Credit \$
Oct. 31	Bad debts	1 620	
	Allowance for doubtful debts		1 620
	Creation of allowance for doubtful debts – 2% of Net credit sales (Memo 130)		

Figure 12.12 shows the General Ledger after posting this General Journal entry, and closing and balancing the accounts as appropriate:

Figure 12.12 General Ledger: bad debts expense (subsequent period)

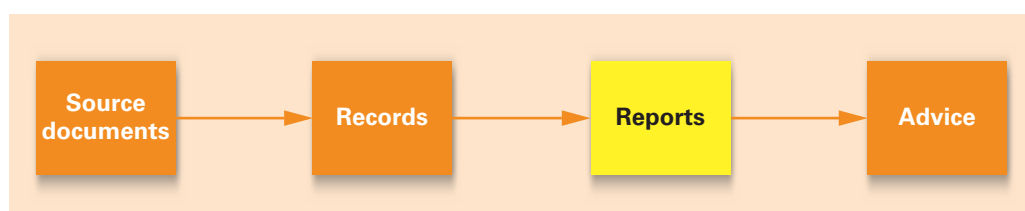
General Ledger Accounts Receivable (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Balance	72 000			

Allowance for doubtful debts (–A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 16	Accounts Receivable	1 500	Oct. 1	Balance	2 340
31	Balance	2 460	Oct. 31	Bad debts	1 620
		3 960			3 960
			Nov. 1	Balance	2 460

Bad debts (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Allowance for doubtful debts	1 620	Oct. 31	Profit and Loss Summary	1 620
		1 620			1 620

Although the entry to record the balance day adjustment for bad debts expense for October 2030 is only \$1 620, the final balance of the Allowance for doubtful debts account – taking into account the existing balance of \$840 – ends up as \$2 460, which is the estimated amount of doubtful debts based on the Net credit sales of \$123 000 for October 2030.

Reporting: bad debts expense and Allowance for doubtful debts



The \$1 620 recorded as **bad debts** for October 2030 would be reported under Other expenses in the Income Statement, and this is the amount by which the Accounting equation would change:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Increase Allowance for doubtful debts)	1 620
Liabilities	No effect	
Owner's equity	Decrease (bad debts expense decreases Net Profit)	1 620

However, in terms of the Balance Sheet the amount reported as **Allowance for doubtful debts** as at 31 October 2030 would be \$2 460, as shown in Figure 12.13:

Figure 12.13 Balance Sheet: Allowance for doubtful debts

GUR GULLIBLE Balance Sheet as at 31 October 2030		
	\$	\$
Current Assets		
Accounts Receivable	72 000	
less Allowance for doubtful debts	2 460	69 540



Review questions 12.4

- 1 Explain** why there is no expense to record when a debt is written off as 'bad'.
- 2 Show** the General Journal entries to write off a bad debt.
- 3 Explain** the circumstances that would lead to bad debts expense being overstated in one Period.
- 4 Show** the effect on the Accounting equation of the entries to write off a bad debt.
- 5 Show** how the Accounts Receivable account might appear if it included one of each type of transaction.
- 6 Explain** how an existing balance in the Allowance for doubtful debts account can affect the balance day adjustment for bad debts expense.



Where have we been?

- Offering credit sales is a way of generating more sales and profit.
- Bad debts are debts that must be 'written off' as irrecoverable or uncollectable because the Account Receivable is unable to pay.
- Doubtful debts is an estimate of debts that are unlikely to be collected in the future but have not yet been written off.
- The balance day adjustment for bad debts allows the expense to be recognised in the Period in which the credit sale is made, thereby upholding the Accrual basis assumption.
- Recording bad debts ensures that the Income Statement and Balance Sheet provide a more *Faithful representation* of the firm's performance and position, and the owner has all *Relevant* information that may affect decision-making.
- Recognising bad debts expense in the reports is an ethical consideration.
- Doubtful debts is calculated using the Income Statement approach, and it is recorded as bad debts expense and Allowance for doubtful debts
- Allowance for doubtful debts is a negative asset that is reported with Accounts Receivable in the Balance Sheet.
- When a bad debt is written off, it is not recorded as an expense, but decreases the Accounts Receivable, Allowance for doubtful debts and GST Clearing accounts.
- Previous balances in the Allowance for doubtful debts account must be taken into account when recording the balance day adjustment for bad debts expense.

Exercises



Exercise 12.1

Bad and doubtful debts

During August 2030, Flicker Films had Net credit sales of \$130 000 (plus GST). As at 31 August 2030, Accounts Receivable had a balance of \$42 000 but reports from previous periods indicate that about 3% of Net credit sales are doubtful of collection. On 31 August 2030, the Accountant asked for Bad debts expense to be recorded (Memo 27).

Required

- Define** the term 'doubtful debts'.
- Calculate** doubtful debts for Flicker Films for August 2030.
- Record** Memo 27 in the General Journal of Flicker Films.
- Referring to your answer to part **c**, **explain** how the balance day adjustment for bad debts expense upholds the Accrual basis assumption.
- Show** how the bad debts expense, Allowance for doubtful debts and Accounts Receivable accounts would appear in the General Ledger of Flicker Films as at 31 August 2030.
- Show** how Accounts Receivable would be reported in the Balance Sheet of Flicker Films as at 31 August 2030.



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Exercise 12.2

Bad and doubtful debts

Cleary Cabinets sells kitchen cabinets, and as at 1 March 2030 the balance of its Accounts Receivable account was \$85 000. During March 2030, the following transactions occurred:

- March 8 Credit sale of inventory for \$140 000 (plus GST)
- 15 Sales return of goods worth \$8 000 (plus GST)
- 23 Sale of goods to Accounts Receivable for \$66 000 (including GST)

Reports from previous periods indicate that about 5% of Net credit sales is doubtful, and on 31 March 2030 the Accountant asked for the balance day adjustments for March 2030 to be recorded (Memo 96).

Required

- a. **Identify** the source documents that would have verified the transactions on 8 and 15 March 2030.
- b. **Calculate** doubtful debts for Cleary Cabinets for March 2030.
- c. **Record** Memo 96 in the General Journal of Cleary Cabinets.
- d. **Show** how the bad debts expense, Allowance for doubtful debts and Accounts Receivable accounts would appear in the General Ledger of Cleary Cabinets after posting the General Journal.
- e. **State** the effect on the Accounting equation of Cleary Cabinets as at 31 March 2030 of the balance day adjustment to record bad debts expense.
- f. **Explain** how the recording of bad debts expense ensures that the Qualitative characteristics of *Relevance* and *Faithful representation* are upheld.
- g. **Explain** two reasons why the owner of Cleary Cabinets should be concerned about the firm's management of Accounts Receivable.



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Exercise 12.3

Writing off a bad debt

As at 31 August 2030, Dodge Dishwashers was owed \$1 650 by Account Receivable – Des T. Chute for \$1 500 worth of sales (plus GST). The firm's GST balance at this date was \$2 000 credit, and it had a balance of \$2 300 in its Allowance for doubtful debts account.

On 14 September 2030, the owner of Dodge Dishwashers went to visit Chute only to find that he had moved three months ago and left no forwarding address. She decided to write off the debt as bad (Memo 43).

Required

- a. **Define** the term 'bad debt'.
- b. **Record** Memo 43 in the General Journal of Dodge Dishwashers.
- c. Referring to one Accounting assumption, **explain** how writing off a bad debt affects Net Profit.
- d. **Show** how the Account Receivable – Des T. Chute, Allowance for doubtful debts and GST Clearing accounts would appear in the General Ledger of Dodge Dishwashers as at 30 September 2030.
- e. **Explain** two actions the owner of Dodge Dishwashers might take to reduce bad debts.



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Exercise 12.4
Writing off a bad debt

On 1 March 2030, the accounts of Terrific Tellies showed Accounts Receivable of \$19 500 with \$2 200 of that amount owed by Ian Solvent. On 25 March 2030, the owner of Terrific Tellies, Travis Milton, received a letter from a solicitor stating that Ian Solvent would be declaring bankruptcy and would only be able to pay 20c of every dollar owed. The letter was accompanied by a cash payment from Ian Solvent for which Travis issued Receipt 31. Travis has decided to write off the remainder as a bad debt (Memo 52).

Required

- a. **Record** the information received on 25 March 2030 in the General Journal of Terrific Tellies.
- b. Referring to your answer to part a, and assuming a credit balance on the GST Clearing account, **explain** the effect of this information on the Accounting equation of Terrific Tellies.
- c. **Show** how the Accounts Receivable account would appear after this information was posted to the General Ledger of Terrific Tellies.
- d. Referring to Qualitative characteristics and ethical considerations, **discuss** whether Travis was correct in writing off the bad debt.

Ethical considerations



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Exercise 12.5
Bad and doubtful debts: subsequent periods

As at 30 November 2030, the Balance Sheet of Wishart Wells showed the following:

WISHART WELLS		
Balance Sheet as at 30 November 2030		
	\$	\$
Current Assets		
Accounts Receivable	60 000	
less Allowance for doubtful debts	1 600	58 400



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Additional information:

- During December 2030, the business made credit sales of \$165 000 (including GST), but sales returns amounted to \$12 000 (plus GST). Receipts from Accounts Receivable for December 2030 amounted to \$145 000.
- On 12 December 2030, the owner received notification that a customer, Hope Springs, had been declared bankrupt and would not be able to pay any of the \$990 it owed (Memo 201).
- It is usual that 5% of Net credit sales ends up being written off as uncollectable.

Required

- a. **Record** Memo 201 in the General Journal of Wishart Wells.
- b. **Calculate** doubtful debts for Wishart Wells for December 2030.
- c. **Record** the balance day adjustment for bad debts expense for December 2030 in the General Journal of Wishart Wells. A narration is **not** required.
- d. Referring to your answers to part **b** and **c**, **explain** why these amounts are different.
- e. **Show** how the Accounts Receivable, Allowance for doubtful debts and bad debts expense accounts would appear in the General Ledger of Wishart Wells as at 31 December 2030 after all closing and balancing entries had been recorded. Individual transaction dates should be provided only when available.
- f. **Show** how Accounts Receivable would be reported in the Balance Sheet of Wishart Wells as at 31 December 2030.

**Exercise 12.6****Bad and doubtful debts: subsequent periods**

As at 30 September 2030, the Allowance for doubtful debts account of Swift Industries had a balance of \$900 CR. The balance of Accounts Receivable at this date was \$120 000 DR.

During October 2030, the following transactions occurred:

- October 3 Sales of \$40 000 (plus GST) were made on credit.
 14 A customer made a sales return of \$5 500 (plus GST).
 16 One of the Accounts Receivable, Jon Myer, was declared bankrupt, and his debt of \$1 200 (plus GST) was written off.
 23 Received \$25 000 cash from Accounts Receivable, allowing a discount of \$1 300 for early payment.
 30 Doubtful debts for the month are estimated to be \$1 725.

Required

- a. **Record** the transaction on 16 October 2030 in the General Journal of Swift Industries. A narration is **not** required.
- b. **Record** the balance day adjustment for bad debts expense for October 2030 in the General Journal of Swift Industries. A narration is **not** required.
- c. **Show** how the Accounts Receivable and Allowance for doubtful debts accounts would appear in the General Ledger of Swift Industries as at 31 October 2030 after all balancing entries had been recorded.
- d. **Show** how Accounts Receivable would be reported in the Balance Sheet of Swift Industries as at 31 October 2030.
- e. Referring to one Qualitative characteristic, **explain** why Swift Industries must report its Allowance for doubtful debts as at 31 October 2030.



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Exercise 12.7
Bad and doubtful debts

On 28 February 2030 the accounts of Nordic Supplies showed the following balances:

- Allowance for doubtful debts \$1 500 CR
- GST Clearing \$950 CR

At this date one customer, I.C. Tusche, owed \$1 540, with the documents below yet to be recorded:



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Document A



Nordic Supplies
ABN: 36 701 410 302
Mansfield Hwy
Mansfield VIC 3724

TAX INVOICE
Invoice: B905

Terms: 5/7, n/30

Charge to: I.C. Tusche
Treetops Chalet, Mt Buller

Date	Details	Qty	Unit Price \$	Total \$
2 Mar. 30	Thriller Snow Board	1	800	800
	GST			80
	Total		\$	880

Document B



MEMO 7

To: The Accountant
From: Jorge Nielson
Date: 29 March 2030
Subject: I.C. Tusche

Today we received 25 cents in the dollar of the outstanding debt of I.C. Tusche (Rec. 77). However, the insolvency firm representing I.C. Tusche has advised us that the remainder of the debt is irrecoverable. Please write this debt off.

ISBN 978-1-009-51081-3
Photocopying is restricted under law and this material must not be transferred to another party.

Simmons & Hardy

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Document C

MEMO 12



To: The Accountant
From: Jorge Nielson
Date: 31 March 2030
Subject: Balance day adjustments

The Allowance for doubtful debts account is to be adjusted to represent 4% of Net credit sales.

Additional information:

- Nordic Supplies purchases the Thriller Snow Board for \$500 (plus GST).
- Including the transactions above, Sales for March 2030 was \$176 000 (including GST); 60% of sales are made on cash terms.
- Sales returns for March 2030 was \$4 000 plus GST.
- The owner has questioned the decision to write-off the debt from I.C. Tusche believing that with time the customer may be able to pay.

Required

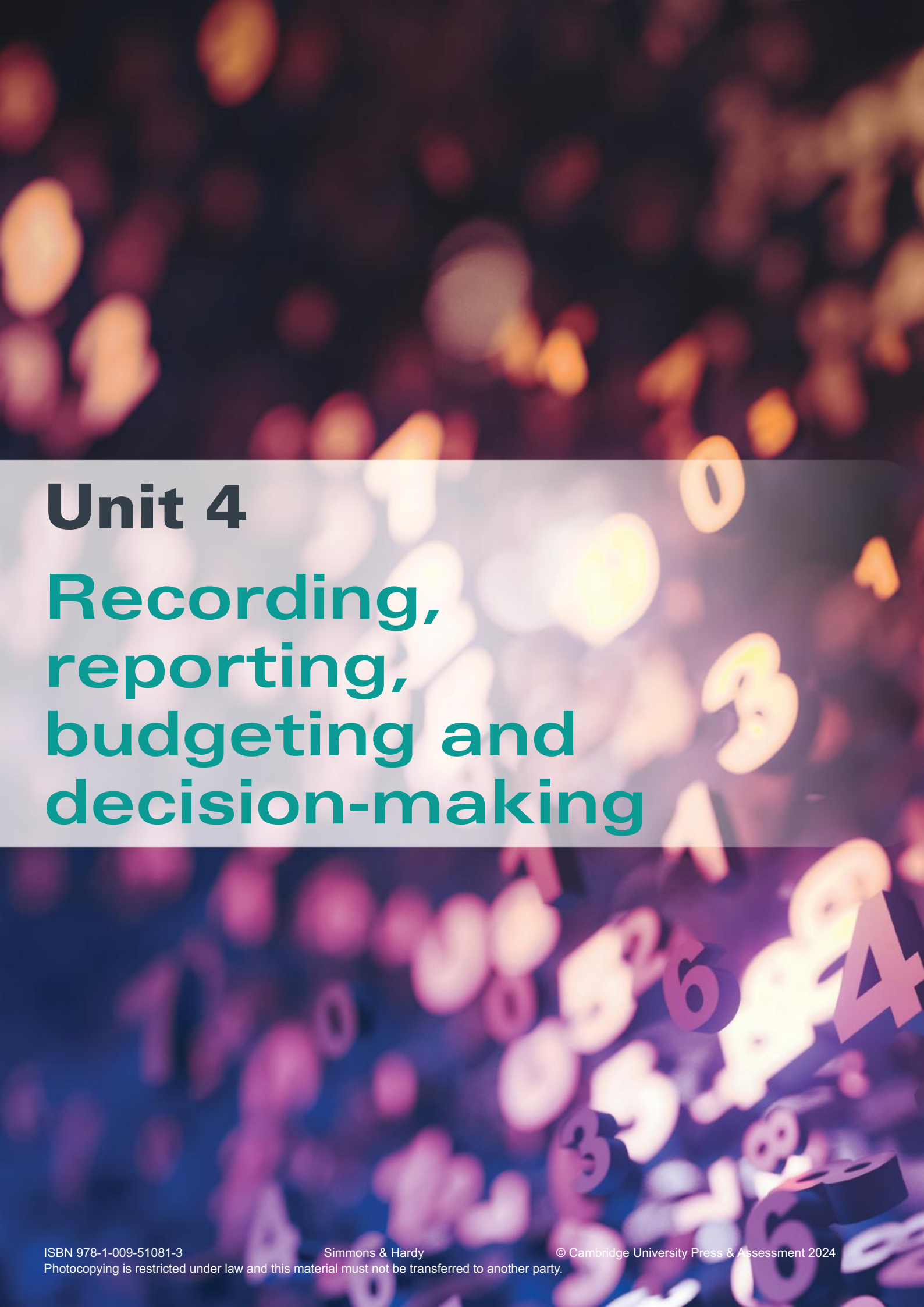
- Record** the documents in the General Journal of Nordic Supplies. Narrations are **not** required.
- State** the effect on the Accounting equation of Nordic Supplies if Document A was **not** recorded.
- Referring to one Qualitative characteristic, **explain** why the bad debt must be recognised on 29 March 2030.
- Show** how the following accounts would appear in the General Ledger of Nordic Supplies as at 31 March 2030 after all balancing entries have been recorded:
 - Allowance for doubtful debts
 - GST Clearing.

Individual transaction dates should be provided only when available.

The owner has stated that bad debts are reducing revenue and leaving the business with less cash.

- Identify** one part of the owner's statement that is correct. **Justify** your answer.
- Identify** one part of the owner's statement that is incorrect. **Justify** your answer.
- Discuss** whether Nordic Supplies should continue making sales to I.C. Tusche.



The background of the entire page is a dark, textured surface with a bokeh effect of out-of-focus light spots in shades of orange, yellow, and purple. Scattered throughout the background are various numbers in different colors and sizes, some appearing to float or be part of a larger composition. A semi-transparent white rectangular box is positioned in the upper-middle section of the page, containing the unit title.

Unit 4

Recording, reporting, budgeting and decision-making

Unit overview

In this unit, students further develop their understanding of accounting for a trading business owned by a sole proprietor and the role of accounting as an information system. Students use the double entry system of recording financial data and prepare reports using the accrual basis of accounting and the perpetual method of inventory recording. Both manual methods and ICT are used to record and report.

Students extend their understanding of the recording and reporting processes, with the inclusion of balance day adjustments and alternative depreciation methods. They investigate both the role and the importance of budgeting in decision-making for a business. They analyse and interpret accounting reports and graphical representations to evaluate the performance of a business. Using this evaluation, students suggest strategies to business owners to improve business performance.

Where appropriate, the accounting procedures developed in each area of study should incorporate application of the Conceptual Framework and financial indicators to measure business performance, as well as the ethical considerations, including financial, social and environmental considerations, faced by business owners when making business decisions.

Source: VCAA, *VCE Accounting Study Design 2025–2029*, page 31.

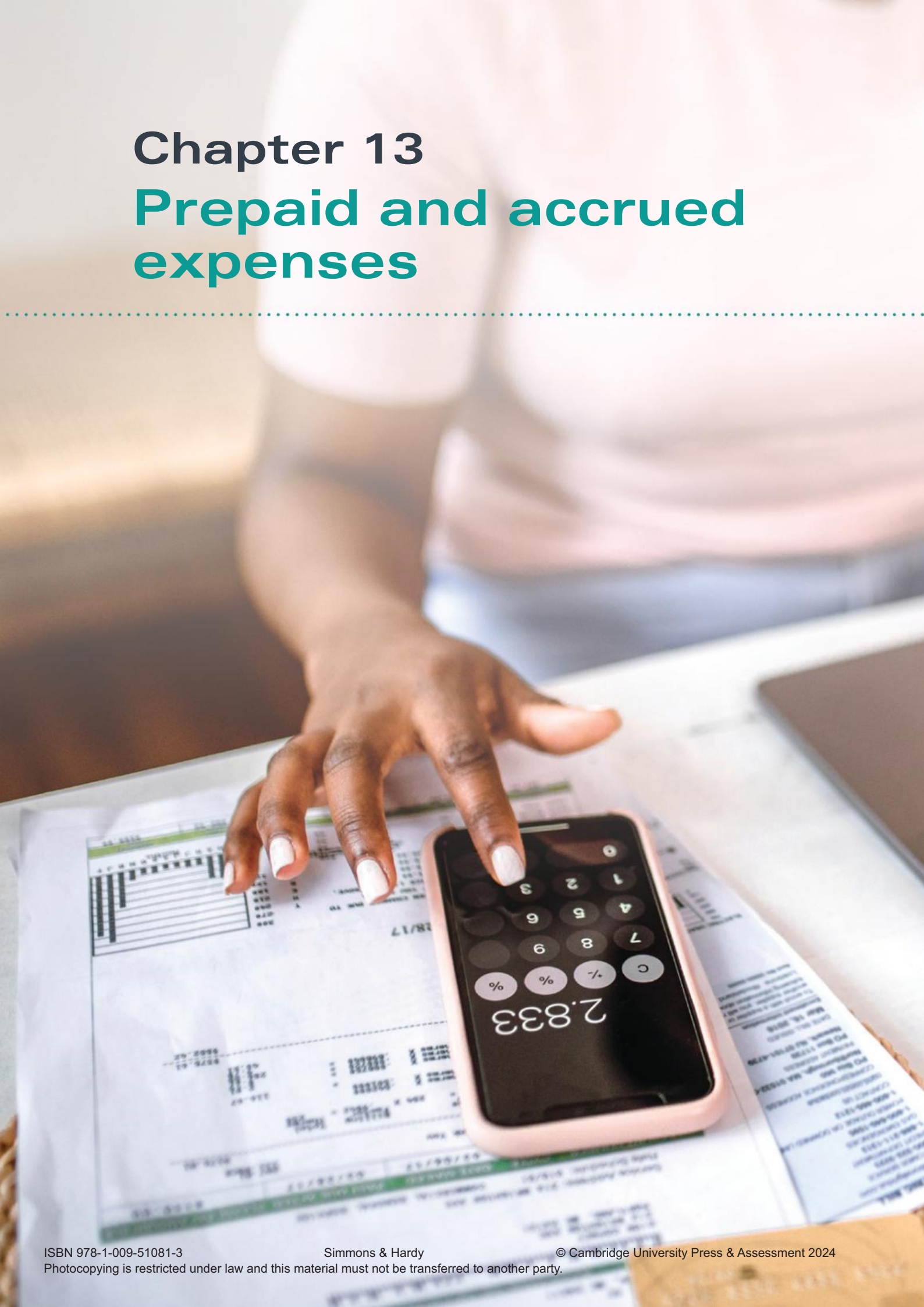
Where are we headed?

The key knowledge and key skills of Unit 4 of the VCE Accounting course are covered in the following chapters:

Chapter 13 Prepaid and accrued expenses	378
Chapter 14 Accounting for non-current assets 1	402
Chapter 15 Accounting for non-current assets 2	436
Chapter 16 Unearned and accrued revenues	468
Chapter 17 Budgeting	494
Chapter 18 Evaluating performance: profitability	536
Chapter 19 Evaluating performance: liquidity	570

Chapter 13

Prepaid and accrued expenses



Learning intentions

After completing this chapter, you should be able to:

- **define** the term 'balance day adjustment'
- **explain** the purpose of a balance day adjustment
- **identify** and **record** expenses paid in advance in the General Journal and General Ledger
- **record** balance day adjustments for prepaid and accrued expenses in the General Journal and General Ledger
- **state** the effect of balance day adjustments on the Accounting equation
- **identify** and **record** the payment of an accrued expense in a subsequent period
- **distinguish** between an accrued expense and an Account Payable
- **report** prepaid and accrued expenses in the Balance Sheet
- **explain** the purpose of a Post-adjustment Trial Balance
- **prepare** a Post-adjustment Trial Balance
- **prepare** reports from a Post-adjustment Trial Balance
- **explain** ethical considerations in relation to recording, reporting and decision-making.

Key terms

After completing this chapter, you should be familiar with the following terms:

- prepaid expense
- accrued expense
- Pre-adjustment Trial Balance
- Post-adjustment Trial Balance.



13.1 Prepaid expenses

Chapter 12 introduced the idea of recording balance day adjustments – changes to the General Ledger accounts to ensure that they show revenues earned and expenses incurred for the current Period so that profit can be calculate accurately. In Chapter 12, the balance day adjustment involved recording bad debts expense, so that (an estimate of) debts unlikely to be collected could be recognised in the Period the credit sale was made. The balance day adjustment increased expenses and decreased profit, and in the process decreased Accounts Receivable (an asset) to ensure all of the Relevant information was reported.

There is a similar need to make a balance day adjustment when a business pays for an expense in advance. For instance, when a business pays for rent or insurance they usually pay for the next month or even the forthcoming year. The same could be said for supplies and materials such as office supplies, which might be purchased in bulk but are not used immediately. In cases like these, an amount is **paid** for an item, but that item is not **incurred** (consumed) at the time the payment is made. But if they are not **incurred**, should we even consider them to be **expenses**?

The short answer is no.

According to the definition, an expense requires a decrease in assets (or increase in liabilities) and a decrease in owner's equity. When cash is paid in advance for items like these, Bank will certainly decrease. However, owner's equity will **not** decrease because *at the time of purchase*, all of the item purchased will remain available for use: the rent, insurance or office supplies will not be incurred but will still exist to provide an economic benefit at some point *in the future*.

Items like this – that have been paid for but are not yet been incurred – are known as **prepaid expenses**, but they are not expenses at all: they are in fact *assets* (like Inventory is an asset) – economic resources controlled by the business. And when they are purchased, the business is simply swapping one current asset (Bank) for another (Prepaid expense), with no expense to record.

Instead of recording items like this as expenses, the Accrual basis of Accounting requires that they are recorded as **assets** when they are **purchased**, with a **balance day adjustment** made at the end of the Period to recognise only the amount actually **incurred** (consumed) in the current Period.

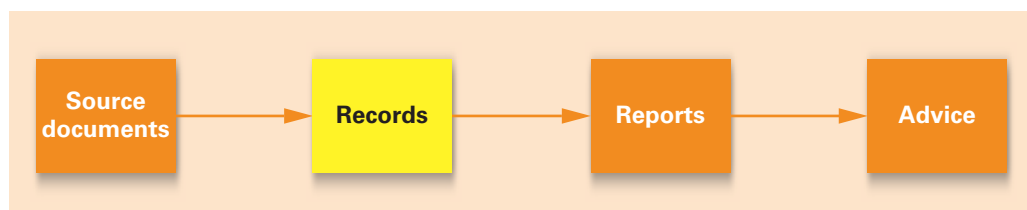
prepaid expense

a current asset that has been paid in advance in the current Period but is yet to be incurred

Example

On 1 October 2030, Wendell Windows **paid \$1 200** (plus **\$120 GST**) for insurance for the next **12 months** (EFT 1063). Reports are prepared every month, and on 31 October 2030 the Accountant asked for the General Ledger to be closed and reports prepared (**Memo 19**).

Cash payment for a prepaid expense



Because this transaction is a payment, **Bank** must be **credited** by **\$1 320**. Insurance might usually be thought of an expense, but because the payment is made **for the next 12 months**, it represents not an expense but rather the purchase of a current asset called **Prepaid insurance** that must be **debited** by **\$1 200**. **GST Clearing** is also **debited** **\$120** to recognise the decrease in the liability to the ATO.

This payment would be recorded in the General Journal as shown in Figure 13.1:

Figure 13.1 General Journal: cash payment for a prepaid expense

General Journal			
Date	Details	Debit \$	Credit \$
Oct. 1	Prepaid insurance	1 200	
	GST Clearing	120	
	Bank		1 320
	Cash payment for 12 months insurance (paid in advance) (EFT 1063)		

Note that there is no expense to record, because on 1 October 2030 no insurance has been incurred.

Figure 13.2 shows how the accounts would appear after posting the General Journal to the General Ledger:

Figure 13.2 General Ledger: cash payment for a prepaid expense

General Ledger Prepaid insurance (CA)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 1	Bank	1 200			

GST Clearing (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 1	Bank	120	Oct. 1	Balance	2 100

Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 1	Balance	4 600	Oct. 1	Prepaid insurance / GST Clearing	1 320

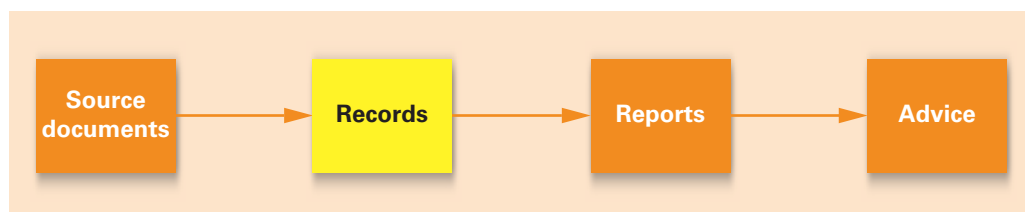
Effect on the Accounting equation

As a result of the **payment**, the effect on the Accounting equation would be:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Decrease Bank \$1 320 , increase Prepaid insurance \$1 200)	120
Liabilities	Decrease (GST Clearing)	120
Owner's equity	No effect	

At this point, there is no expense amount recorded in the General Ledger accounts; it is all recorded as a current asset.

BDA: Expense incurred



Prepaid expenses are recorded as **current assets** because at the time of payment, none of the amount has been consumed; it is all a *future* economic benefit. However, by the time balance day (the day on which the ledger is closed, and the reports are prepared) arrives, at least part of this prepaid expense is likely to have been **incurred** or consumed. In other words, part of the **asset** has become an **expense**.

It is therefore necessary to adjust the ledger accounts so that:

- the **Insurance expense** account shows the amount **incurred** (consumed) in the *current* Period
- the **Prepaid expense** account only shows the **amount remaining** or still to be incurred in *future* Periods.

Calculating the expense incurred

In this example, \$1 200 worth of **Prepaid insurance** was purchased on 1 October 2030, with this payment to cover the next 12 months. Given Wendell Windows reports monthly, the **expense incurred** for the month can be calculated as shown in Figure 13.3:

Figure 13.3 Calculation: expense incurred

$$\begin{aligned}
 \text{Insurance expense} &= \frac{\$1\,200 \text{ Prepaid insurance}}{12 \text{ months}} \\
 &= \$100 \text{ per month}
 \end{aligned}$$

Recording the BDA – expense incurred

Given that reports are prepared every month, by balance day (31 October 2030) an expense of **one month** or **\$100 (Memo 19)** will be consumed, and this must be **debited** to the **Insurance** expense account to recognise the amount **incurred**. At the same time, the **Prepaid insurance** account must be **credited** to record the decrease in the value of this current asset.

Figure 13.4 shows the General Journal entries to record this balance day adjustment:

Figure 13.4 General Journal: BDA – expense incurred

General Journal			
Date	Details	Debit \$	Credit \$
Oct. 31	Insurance	100	
	Prepaid insurance		100
	Balance day adjustment to record one month of insurance incurred (Memo 19)		

Study tip

Calculate the amount **incurred** (consumed/used up): this is the amount to use in the balance day adjustment.

After posting this General Journal entry, the General Ledger would appear as shown in Figure 13.5:

Figure 13.5 General Ledger: BDA – expense incurred

General Ledger Prepaid insurance (CA)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 1	Bank	1 200	Oct. 31	Insurance	100

Insurance (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Prepaid insurance	100			

Study tip

When adjusting a prepaid expense, 'take away' the amount **incurred** (from the **current asset**).

Note that the Bank and GST Clearing accounts are unaffected, as on balance day no cash has been exchanged, and no GST has been involved: the balance day adjustment simply increases the expense (**Insurance**) and decreases the asset (**Prepaid insurance**).

Effect on the Accounting equation

As a result of the **balance day adjustment** for the Insurance expense **incurred**:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Prepaid insurance)	100
Liabilities	No effect	
Owner's equity	Decrease (Increase insurance expense decreases Net Profit)	100

Closing the ledger

Only after the ledger accounts have been **adjusted** – so that the expense account shows the amount **incurred** in the current Period and the asset account shows the amount yet to be incurred – are they ready to be closed, or balanced.

Figure 13.6 shows how the Prepaid insurance account would appear after it had been balanced and the Insurance expense account after it had been closed to the Profit and Loss Summary account:

Study tip

Adjusting entries must be made before closing entries (ABC: Adjust Before Closing).

Figure 13.6 General Ledger: after closing and balancing

General Ledger Prepaid insurance (CA)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 1	Bank	1 200	Oct. 31	Insurance	100
				Balance	1 100
		1 200			1 200
Nov. 1	Balance	1 100			

Insurance (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Prepaid insurance	100	Oct. 31	Profit and Loss Summary	100
		100			100

Study tip

All expense accounts are closed in one General Journal entry, with each expense account credited, and one debit to the Profit and Loss Summary account.

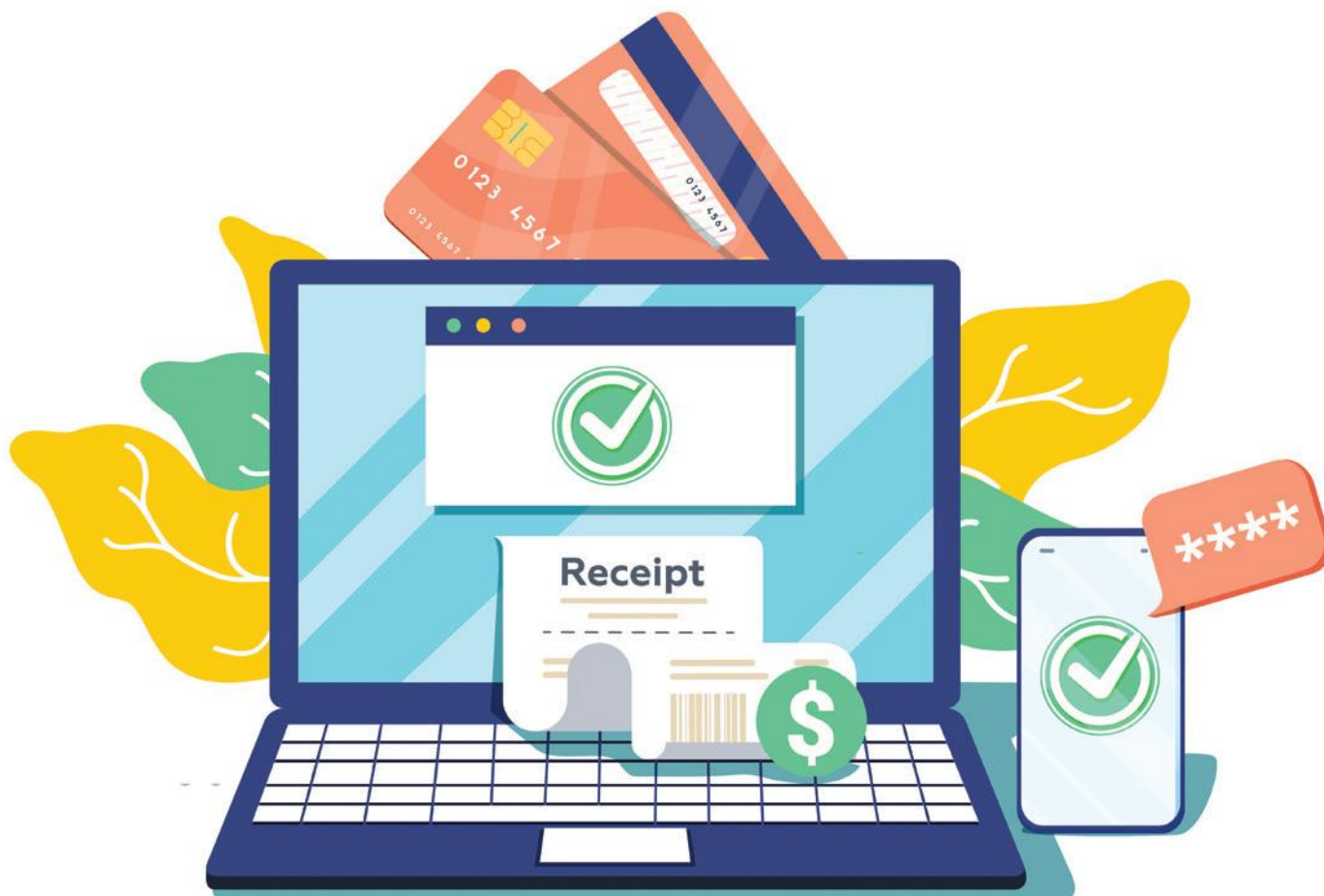
The Insurance account is reset to zero in readiness for the next Period, but the balance of \$1 100 left in the Prepaid insurance account (\$1 200 paid less \$100 incurred) represents the amount unused, or yet to be consumed in the current Period; or the amount that will be incurred in a *future* Period. This is the new current asset balance.

Had the balance day adjustment not been recorded, the current asset Prepaid insurance would have been overstated by \$100, and the Insurance expense understated by \$100, meaning Net Profit and owner's equity would be overstated by \$100.

Instead, as a consequence of the balance day adjustment these items are reported accurately, meaning Net Profit and the Balance Sheet are also accurate and include all the Relevant information that is capable of making a difference to decision-making.

**Review questions 13.1**

- 1 **Explain** the purpose of recording a balance day adjustment.
- 2 **Explain** why a prepaid expense is classified as a current asset.
- 3 **Explain** the effect on the Accounting equation of a cash payment for a prepaid expense.
- 4 **Show** the General Journal entries necessary to record the balance day adjustment when a prepaid expense is incurred.
- 5 **Explain** the effect on the Accounting equation of the balance day adjustment when a prepaid expense is incurred.
- 6 **Explain** how a balance day adjustment for a prepaid expense that has been incurred ensures *Relevance* in the reports.





13.2 Accrued expenses

Prepaid expenses are paid *before* they are incurred, but it is also likely that some expenses will be paid *after* they are incurred. For example, at balance day there may be wages owing to employees for work that has already been done, or electricity that has been consumed but not yet paid for.

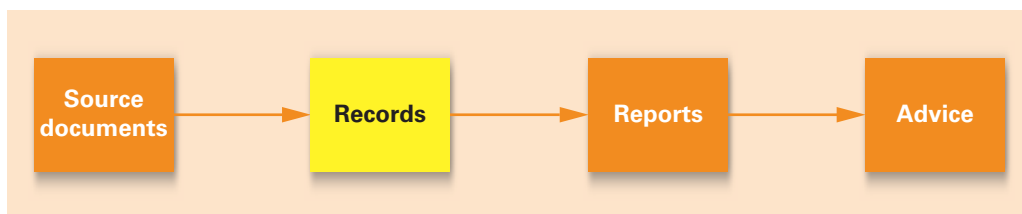
Amounts like these that have been **incurred** in the current Period but have not yet been paid for are current liabilities known **accrued expenses** and must be added to the expense amounts to ensure all of the amount incurred is recognised.

accrued expense
a current liability that arises when an expense has been incurred in the current Period but has not yet been paid

On 23 August 2030, Mixwell Sports paid \$1 500 (plus \$150 GST) for electricity it had used. By balance day on 31 August 2030 a further \$300 of electricity had been consumed but had not been paid (Memo 15).

Example

BDA: accrued expense



Prior to making any balance day adjustments, expense accounts will only show the amounts paid, so the Electricity account of Mixwell Sports would appear as shown in Figure 13.7:

Figure 13.7 General Ledger: expense account (before BDA)

General Ledger Electricity (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 23	Bank	1 500			

However, before the accounts can be closed and reports can be prepared, the Accountant must ascertain whether any additional amounts have been incurred but not yet paid. If there are, these must be added to the expense accounts before the closing entries are made.

It is therefore necessary to adjust the ledger accounts so that:

- the **extra amount incurred** (but not yet paid) in the *current* Period is added to the expense account
- the **amount owing** (which will be paid in the *next* Period) is shown in the current liability account as an Accrued expense.

Recording the BDA – Accrued expense

In this example, an extra \$300 worth of electricity has been incurred, and this must be added to the **Electricity** account by a **debit** entry. At the same time, the **Accrued electricity** account must be **credited** to recognise the current liability for the amount still owing to the electricity company.

Figure 13.8 shows the General Journal entries to record this balance day adjustment:

Figure 13.8 General Journal: BDA – accrued expense

General Journal			
Date	Details	Debit \$	Credit \$
Aug. 31	Electricity	300	
	Accrued electricity		300
	Balance day adjustment to record electricity incurred but not yet paid (Memo 15)		

After posting this General Journal entry, the General Ledger would appear as shown in Figure 13.9:

Figure 13.9 General Ledger: BDA – accrued expense

General Ledger Electricity (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 23	Bank	1 500			
31	Accrued Electricity	300			

Accrued Electricity (CL)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Aug. 31	Electricity	300

Study tip

When adjusting an accrued expense, 'add on' the **extra amount incurred** (to the **amount already paid**).

As with the adjustment for the consumption of a prepaid expense, this adjustment does not change Bank, nor does it affect GST Clearing. Rather, it increases expenses (decreasing profit) and increases liabilities in the Balance Sheet.

This example also illustrates the fact that an expense does not have to involve a decrease in Bank; in fact, there is no decrease in assets at all in this case. Rather, the expense increases as a result of an increase in liabilities (Accrued electricity).

Effect on the Accounting equation

As a result of the balance day adjustment for Accrued electricity:

	Increase/Decrease/No effect	Amount\$
Assets	No effect	
Liabilities	Increase (Accrued electricity)	300
Owner's equity	Decrease (Increase Electricity expense decreases Net Profit)	300

Closing the ledger

For an accrued expense, the amount of the balance day adjustment (**\$300**) is **not** the total expense for the Period. Rather, it is simply the **extra amount owing**: the amount that has been incurred but not yet paid. It is added to the amount **paid** (**\$1 500**) to calculate the **total expense** incurred for the Period, and it is this total **expense incurred** (**\$1 800**) that is closed to the Profit and Loss Summary account. However, the amount **accrued** (owing) will be reported as a current liability in the Balance Sheet.

Figure 13.10 shows how the Electricity expense account would appear after it had been closed to the Profit and Loss Summary account, and the Accrued electricity account after it had been balanced.

Figure 13.10 General Ledger: after closing and balancing

General Ledger Electricity (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 23	Bank	1 500	Aug. 31	Profit and Loss Summary	1 800
31	Accrued electricity	300			
		1 800			1 800

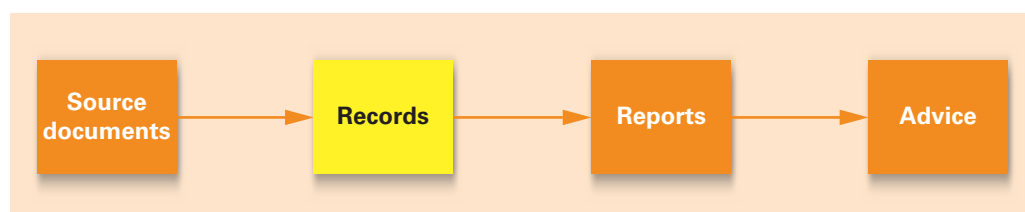
Accrued electricity (CL)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 31	Balance	300	Aug. 31	Electricity	300
		300			300
			Sept. 1	Balance	300

Note how the amount closed to the Profit and Loss Summary account (\$1 800) is greater than the amount of the adjustment (\$300), as the **total expense incurred** includes both the \$1 500 paid and the \$300 still owing at the end of the Period.

Had the balance day adjustment not been recorded, the **Electricity expense** would have been understated by \$300, meaning Net Profit and owner's equity would be overstated by \$300, and the current liability **Accrued electricity** would have been understated by \$300.

Study tip

For an item to be recognised as an expense, the definition requires an item to be incurred; payment is not necessary.

Payment of accrued expenses in subsequent periods

Sometime in the next Period, the amount owing as an accrued expense will be paid. Therefore, the next time cash is paid to the supplier, we must recognise that while some of the amount paid may represent an expense of the **current** Period, at least some of the payment relates to the **previous** Period. In other words, some of the amount paid reduces the liability for accrued expenses – expenses incurred and accrued *last Period*.

On 4 September 2030, Mixwell Sports paid **\$1 650** (including **\$150 GST**) to the electricity company (EFT Trans. 9077).

Example**Recording the payment in a subsequent period**

The **\$1 650** paid will decrease **Bank**, and this must be recorded via a **credit** entry. However, this is not all Electricity expense incurred in September 2030.

For a start, it includes **\$150** that must be **debited** to **GST Clearing** to decrease the liability to the ATO. This leaves us with \$1 500 that has been paid for electricity. But how much relates to electricity that was consumed in **September** 2030?

Remember that on 31 August 2030 a balance day adjustment was made to record \$300 of electricity that had been incurred in August 2030 but had not yet been paid. That adjustment meant that at 31 August 2030 \$300 was owed for Accrued electricity.

When the payment is made on 4 September 2030, some of the \$1 500 is being used to pay off this earlier debt. That is, \$300 is paid to decrease the Accrued electricity liability, so only the remaining \$1 200 represents Electricity expense incurred during September 2030.

The payment of electricity on 4 September 2030 would be recorded in the General Journal as shown in Figure 13.11:



Video 13.1
Recording the
payment of an
accrued expense

Figure 13.11 General Journal: payment in subsequent period

General Journal			
Date	Details	Debit \$	Credit \$
Sept 4.	Accrued electricity	300	
	Electricity	1 200	
	GST Clearing	150	
	Bank		1 650
	Payment of electricity bill for August/September 2030 (EFT Trans. 9077)		

After posting the General Journal to the General Ledger, the accounts would appear as shown in Figure 13.12:

Figure 13.12 General Ledger: payment in subsequent period

General Ledger					
Accrued electricity (CL)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 4	Bank	300	Sept. 1	Balance	300

Electricity (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 4	Bank	1 200			

GST Clearing (A/L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 4	Bank	150	Sept. 1	Balance	2 400

Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 1	Balance	6 500	Sept. 4	Accrued electricity / Electricity / GST Clearing	1 650

Effect on the Accounting equation

As a result of the payment of Accrued electricity and Electricity:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Bank)	1 650
Liabilities	Decrease (Accrued electricity \$300, GST Clearing \$150)	450
Owner's equity	Decrease (Increase Electricity expense decreases Net Profit)	1 200

As was noted in Chapter 4, not all expenses are subject to GST, so when paying a non-GST item in a subsequent period (such as Wages or Interest expense), it will not be necessary to account for the GST. However, it is likely that it will still be necessary to split the payment as part Accrued wages, part Wages expense or as part Accrued interest, part Interest expense.

Accrued expense versus Account Payable

An accrued expense occurs when an expense has been incurred but the payment has not yet been made. An Account Payable occurs when items are purchased but the payment has not been made. Given the obvious similarity, what is the difference? When should an amount owing be recorded as an accrued expense? When should it be recorded as an Account Payable?

To start with, accrued expenses must relate specifically to expenses. The amounts must be owing for items that have already been incurred, rather than for assets. But, more importantly, accrued expenses are not technically due for repayment at balance day, because no invoice has been received. Accrued expenses occur when balance day falls before an item has been paid, but also before it is due for payment. Thus, an accrued expense will be verified not by an invoice but by something like a memo. If an invoice has been received, the transaction is simply a credit transaction and the amount owing should be shown as Accounts Payable.



Review questions 13.2

- 1 **Explain** why an accrued expense is classified as a current liability.
- 2 **Show** the General Journal entries necessary to record an accrued expense.
- 3 **Explain** the effect on the Accounting equation of the balance day adjustment for an accrued expense.
- 4 **Explain** why the payment of an accrued expense in a subsequent period requires the payment to be split in the General Journal.
- 5 **Explain** the effect on the Accounting equation of the payment of an accrued expense in a subsequent period.
- 6 **Distinguish** between an accrued expense and Accounts Payable.



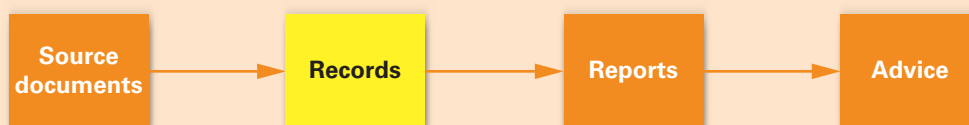
13.3 The Post-adjustment Trial Balance

Pre-adjustment Trial Balance

a list of all General Ledger accounts and their balances before balance day adjustments have been made

Post-adjustment Trial Balance

a list of all General Ledger accounts and their balances after balance day adjustments have been made



The idea of preparing a Trial Balance was introduced in Chapter 3 as part of the process of recording in the General Ledger. Its function was to check that total debits equal total credits, thereby helping to detect errors in the recording process.

Technically, this should have been titled a **Pre-adjustment Trial Balance**, as it was prepared before any balance day adjustments had been recorded. However, balance day adjustments change the General Ledger accounts after the Trial Balance has already been prepared; they increase certain expenses, decrease certain current assets and increase certain current liabilities. This means it may be useful to prepare a **Post-adjustment Trial Balance** to check that even after the balance day adjustments have been made, the total debits equal the total credits.

Example

Kingston Homewares has provided the following Pre-adjustment Trial Balance:

KINGSTON HOMEWARES Pre-adjustment Trial Balance as at 30 June 2030		
Account	Debit \$	Credit \$
Inventory	34 000	
Accounts Receivable	12 800	
Allowance for doubtful debts		800
Prepaid rent expense	6 000	
Fixtures and fittings	50 000	
Bank		1 000
Accounts Payable		19 000
Loan – Wonderbucks		45 000
Capital – Gemeika		29 000
Sales		101 000
Sales returns	1 000	
Cost of Sales	60 000	
Wages	20 000	
Electricity	8 000	
Advertising	4 000	
Totals	195 800	195 800

Additional information as at 30 June 2030:

- Bad debts expense \$1 000
- Rent incurred \$700
- Accrued wages \$200

The entries to record these balance day adjustments in the General Journal (with the narrations omitted) are shown in Figure 13.13:

Figure 13.13 General Journal: balance day adjustments

General Journal			
Date	Details	Debit \$	Credit \$
June 30	Bad debts	1 000	
	Allowance for doubtful debts		1 000
	Rent expense	700	
	Prepaid rent expense		700
	Wages	200	
	Accrued wages		200

After these balance day adjustments were posted to the ledger accounts, a Post-adjustment Trial Balance would be prepared, as is shown in Figure 13.14:

Figure 13.14 Post-adjustment Trial Balance

KINGSTON HOMEWARES Post-adjustment Trial Balance as at 30 June 2030		
Account	Debit \$	Credit \$
Inventory	34 000	
Accounts Receivable	12 800	
Allowance for doubtful debts		1 800
Prepaid rent expense	5 300	
Fixtures and fittings	50 000	
Bank		1 000
Accounts Payable		19 000
Loan – Wonderbucks		45 000
Capital – Gemeika		29 000
Sales		101 000
Sales returns	1 000	
Cost of Sales	60 000	
Wages	20 200	
Electricity	8 000	
Advertising	4 000	
Bad debts	1 000	
Rent expense	700	
Accrued wages		200
Totals	197 000	197 000

Obviously, the balance day adjustments were posted correctly – at least in terms of debits matching credits – because this Post-adjustment Trial Balance still balances (at a new total of **\$197 000**).

Preparing the Post-adjustment Trial Balance also assists in ensuring that the closing entries and the Income Statement use the correct amounts: that is, the *adjusted* figures for the amounts *incurred* rather than the unadjusted figures, which did not account for any balance day adjustments. This ensures that the reports provide information that

is both Relevant (as it is capable of making a difference to decision-making) and also a *Faithful representation* of the firm's performance and position (as the information is complete and accurate).

Ethical considerations

Indeed, it could be argued that excluding this information would be unethical, as the reports would not provide an accurate and complete representation of the firm's activities and might therefore be misleading to the users of those reports.



Review questions 13.3

- 1 **Explain** the difference between a Pre-adjustment Trial Balance and a Post-adjustment Trial Balance.
- 2 **Explain** how a Post-adjustment Trial Balance can assist in the preparation of an accurate Income Statement.
- 3 **Explain** how the inclusion of balance day adjustments upholds both *Relevance* and *Faithful representation*.
- 4 **Explain** the ethical reasons for using the Post-adjustment Trial Balance to prepare financial reports.

Ethical considerations



Where have we been?

- Balance day adjustments are made so that an accurate profit can be calculated by comparing revenue earned and expenses incurred in the current Period.
- When an item is paid for in advance and yet to be incurred, it should be recorded as a prepaid expense (a current asset).
- A balance day adjustment for a prepaid expense will increase expenses and decrease assets by the amount incurred.
- A balance day adjustment for an accrued expense will increase expenses and increase liabilities by the extra amount incurred (the amount owing).
- The payment of an accrued expense in a subsequent period will be split between the liability from the previous Period and the expense in the current Period.
- Balance day adjustments have no effect on cash but will change Net Profit and the items in the Balance Sheet.
- A Post-adjustment Trial Balance should be prepared after the balance day adjustments have been posted to the ledger to check that total debits still equal total credits.
- It would be unethical to omit the information provided by balance day adjustments as it may mislead the users of the reports.

Exercises

Please note: asterisks indicate that an answer for that question is available in the Selected Answers section at the end of this book.



Exercise 13.1 Prepaid expense

On 1 March 2030, Dom's Large Goods paid \$6 000 (plus \$600 GST) to cover the next six months' rent (EFT Trans. 2434). The firm closes its ledger accounts and prepares its financial reports on 30 June each year, and on 30 June 2030 the Accountant requested that this be done (Memo 51).

Required

- Record** EFT Transaction 2434 in the General Journal of Dom's Large Goods.
- Referring to one Accounting assumption, **explain** why some of the rent paid should be reported as an expense for the year ending 30 June 2030.
- Calculate** Rent expense for the year ending 30 June 2030.
- Record** the balance day adjustment for Rent expense for the year ending 30 June 2030 in the General Journal of Dom's Large Goods.
- Explain** the effect of the adjustment for Rent expense on the Accounting equation of Dom's Large Goods.
- Show** how the Rent expense and Prepaid rent expense accounts would appear in the General Ledger of Dom's Large Goods as at 30 June 2030 after all closing and balancing entries had been made.



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Exercise 13.2 Prepaid expense

On 11 February 2030, Ronnie's Car Parts paid \$300 (plus GST) for office supplies (EFT payment 6153). On 28 February 2030, \$60 worth of office supplies was still on hand (Memo 84).

Required

- Record** the payment for office supplies in the General Journal of Ronnie's Car Parts.
- Calculate** Office supplies expense for February 2030.
- Show** the General Journal entries necessary to record Office supplies expense for February 2030.
- Show** how the Office supplies expense and Prepaid office supplies accounts would appear in the General Ledger of Ronnie's Car Parts as at 28 February 2030 after all closing and balancing entries had been made.
- Show** how Prepaid office supplies would be reported in the Balance Sheet of Ronnie's Car Parts as at 28 February 2030.



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Exercise 13.3

Prepaid expense

Maxwell's Shoes presented the following extract from its Balance Sheet as at 31 March 2030:

Current assets: Prepaid insurance \$1 800

The yearly insurance premium was paid in advance on 1 January 2030. The business prepares reports monthly, and the next balance day occurs on 30 April 2030.

Required

- Referring to one Qualitative characteristic, **explain** why balance day adjustments are necessary.
- Calculate** Insurance expense for April 2030.
- Record** Insurance expense for April 2030 in the General Journal of Maxwell's Shoes. A narration is **not** required.
- State** the effect on the Accounting equation of Maxwell's Shoes if the adjustment for Insurance expense was **not** made.
- Show** how Prepaid insurance would be reported in the Balance Sheet of Maxwell's Shoes as at 31 July 2030.



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Exercise 13.4

Prepaid expense

On 27 June 2030, Halifax Furniture paid \$2 200 (including GST) for advertising in Furniture Trader magazine (EFT Trans. 307). The advertisements will appear once a month for five months, with the first advertisement appearing in July 2030 (Memo 82).

Required

- Record** EFT Trans. 307 in the General Journal of Halifax Furniture.
- Explain** how the amount paid for advertising would be reported in the Balance Sheet of Halifax Furniture as at 30 June 2030.
- Calculate** Advertising expense for the quarter ended 30 September 2030.
- Record** the balance day adjustment for Advertising expense for the quarter ended 30 September 2030 in the General Journal of Halifax Furniture.
- Show** how the Advertising expense and Prepaid advertising accounts would appear in the General Ledger of Halifax Furniture as at 30 September 2030 after all closing and balancing entries had been made.
- Explain** the effect on the Net Profit of Halifax Furniture for the quarter ended 30 September 2030 if the adjustment for Advertising expense was **not** made.



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Exercise 13.5

Prepaid expense

During 2029, Clive Rap opened his own music shop called Hard MC. On 31 August 2029, Clive paid \$1 650 (including GST) to cover rent for the six months from 1 September 2029 to 28 February 2030 (EFT Trans. 233).

During December 2029, the firm was informed that, beginning in March 2030, rent would increase, so on 28 February 2030 the firm paid \$1 800 (plus \$180 GST) for rent for the six months from 1 March to 31 August 2030 (EFT 297). The firm prepares its reports on 30 June each year.

Required

- Calculate** Rent paid for the year ended 30 June 2030.
- Calculate** Rent expense for the year ended 30 June 2030.
- Referring to your answers to parts **a** and **b**, **explain** why Rent paid and Rent expense are different amounts.
- Show** the General Journal entries necessary to record Rent expense for the year ended 30 June 2030. A narration is **not** required.
- Show** how the Rent expense and Prepaid rent expense accounts would appear in the General Ledger of Hard MC as at 30 June 2030 after all closing and balancing entries had been made.
- Explain** the effect on the Accounting equation of Hard MC if the adjustment for Rent expense was **not** made.



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Exercise 13.6

Accrued expense

During 2030, Strong Arm Security Devices paid \$11 000 (including \$1 000 GST) for advertising, but as at 31 December 2030 a further \$3 000 was still owing (Memo 44).

Required

- Calculate** Advertising expense for 2030.
- Referring to one Qualitative characteristic, **explain** why the advertising owing should be included in the Advertising expense for 2030.
- Show** the General Journal entries necessary to record advertising owing as at 31 December 2030.
- State** the effect of the adjustment for advertising owing on the Accounting equation of Strong Arm Security Devices.
- Show** how the Advertising expense and Accrued advertising accounts would appear in the General Ledger of Strong Arm Security Devices as at 31 December 2030 after all closing and balancing entries had been made.
- Explain** how Accrued advertising would be reported in the Balance Sheet of Strong Arm Security Devices as at 31 December 2030.



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Exercise 13.7

Accrued expense

After a series of break-ins, Jim's Gems employed a security guard on 12 June 2030. The security guard works seven days per week and is paid wages of \$1 260 per fortnight. Wages were last paid to cover the fortnight from 12 June to 25 June 2030 inclusive (Memo 17).



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Required

- Calculate** Accrued wages as at 30 June 2030.
- Record** Accrued wages as at 30 June 2030 in the General Journal of Jim's Gems.
- Show** how the Wages and Accrued wages accounts would appear in the General Ledger of Jim's Gems as at 30 June 2030 after all closing and balancing entries had been made.
- Record** the payment of wages on 9 July 2030 (EFT Trans. 236) in the General Journal of Jim's Gems.
- Referring to one Accounting assumption, **explain** why only some of the wages paid on 9 July 2030 should be reported as an expense for July 2030.



Exercise 13.8

Accrued expense

On 1 November 2029, Millie Hall borrowed \$24 000 to set up her business, Hall Antiques. It is an interest-only loan, due to be paid back in five years' time. Interest is calculated at 8% p.a. and is payable in two separate payments on 30 April and 31 October each year.

Required

- Calculate** Interest incurred for the year ended 30 June 2030.
- Show** the General Journal entries necessary to record Accrued interest expense as at 30 June 2030. A narration is **not** required.
- Show** how the Interest expense and Accrued interest expense accounts would appear in the General Ledger of Hall Antiques as at 30 June 2030 after all closing and balancing entries had been made.
- Explain** the effect on the Net Profit of Hall Antiques for the year ended 30 June 2030 if the adjustment for Accrued interest expense was **not** made.
- Record** the payment of interest on 31 October 2030 in the General Journal of Hall Antiques. A narration is **not** required.
- State** the effect on the Accounting equation of Hall Antiques of the payment of interest on 31 October 2030.



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Exercise 13.9

Accrued expense

During April 2030, Bright Lights paid for electricity worth \$4 400 (including GST) but incurred electricity worth \$4 600 (Memo 31). On 14 May 2030, the firm paid a further \$2 500 (plus GST) for electricity (EFT payment 7196).

Required

- Calculate** Accrued electricity as at 30 April 2030.
- Show** the General Journal entries to record Accrued electricity as at 30 April 2030.
- Show** how the Electricity expense and Accrued electricity accounts would appear in the General Ledger of Bright Lights as at 30 April 2030 after all closing and balancing entries had been made.
- State** the effect on the Accounting equation of Bright Lights if the balance day adjustment for Accrued electricity was **not** recorded.
- Record** EFT payment 7196 in the General Journal of Bright Lights.



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Exercise 13.10

Accrued expense

As at 31 July 2030, the General Ledger of Brooke Irrigation Supplies showed Accrued cleaning expenses of \$450. On 5 August 2030, the business paid \$1 870 (including GST) for cleaning (EFT trans. 9201). This was the only payment for cleaning during August 2030. As at 31 August 2030, \$510 was owing for cleaning expenses (Memo 12).

Required

- Record** EFT trans. 9201 in the General Journal of Brooke Irrigation Supplies.
- Calculate** Cleaning expenses for August 2030.
- Record** the balance day adjustment for Accrued cleaning expenses as at 31 August 2030 in the General Journal of Brooke Irrigation Supplies.
- Complete** the Accrued cleaning expenses account in the General Ledger of Brooke Irrigation Supplies as at 31 August 2030.
- Explain** the effect on the Accounting equation of Brooke Irrigation Supplies if the balance day adjustment for accrued cleaning was **not** recorded.
- State** one Accounting assumption that would be breached if the adjustment for Accrued cleaning expenses was **not** made. **Justify** your answer.



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Exercise 13.11

Reporting prepaid and accrued expenses

Pickford Paints has provided the following Pre-adjustment Trial Balance as at 30 June 2030:

PICKFORD PAINTS Pre-adjustment Trial Balance as at 30 June 2030		
Account	Debit \$	Credit \$
Accounts Payable		30 400
Accounts Receivable	23 500	
Advertising	3 850	
Allowance for Doubtful Debts		400
Bank	1 050	
Capital – Pickford		27 250
Cost of Sales	57 000	
Discount expense	250	
Discount revenue		200
Drawings	4 300	
Freight in	600	
GST Clearing		120
Interest expense	220	
Inventory	45 600	
Loan – Bank of Wilco		40 000
Office equipment	7 900	
Prepaid rent expense	4 500	
Sales		96 500
Sales returns	700	
Shop fittings	15 800	
Wages	29 600	
Totals	194 870	194 870



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Additional information:

- The Loan – Bank of Wilco is repayable at \$6 000 p.a.
- A physical inventory count on 30 June 2030 showed inventory on hand worth \$45 200.
- Monthly rent expense is \$900.
- \$1 200 wages remained owing to employees at 30 June 2030.
- Bad debts expense for the month will be \$500.
- Reports are prepared monthly.

Required

- Record** the balance day adjustments in the General Journal of Pickford Paints on 30 June 2030. Narrations are **not** required.
- * **Prepare** a Post-adjustment Trial Balance for Pickford Paints as at 30 June 2030.
- Show** the General Journal entries necessary to close the ledger, and transfer Drawings to the Capital account. Narrations are **not** required.
- Referring to one Accounting assumption, **explain** the purpose of making balance day adjustments.
- * **Prepare** an Income Statement for Pickford Paints for June 2030.
- Explain** one action Pickford Paints could take to improve the effectiveness of its advertising.
- * **Prepare** a classified Balance Sheet for Pickford Paints as at 30 June 2030.
- Explain** how the use of a Post-adjustment Trial Balance ensures *Relevance* in the reports.

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**Exercise 13.12****Reporting prepaid and accrued expenses**

Maranelli Sports has provided the following Pre-adjustment Trial Balance as at 31 December 2030:

MARANELLI SPORTS Pre-adjustment Trial Balance as at 31 December 2030		
Account	Debit \$	Credit \$
Accounts Payable		18 300
Accounts Receivable	13 000	
Advertising	8 200	
Allowance for Doubtful Debts		600
Bank		2 300
Buying expenses	3 000	
Capital – Maranelli		85 430
Cost of Sales	92 000	
Discount expense	1 230	
Discount revenue		580
Drawings	31 000	
Fittings and fixtures	26 800	
GST Clearing		320
Interest expense	1 800	
Inventory	32 000	
Inventory write-down	400	
Mortgage – HH Finance		180 000
Premises	240 000	
Prepaid insurance	1 500	
Sales		191 600
Sales returns	1 200	
Wages	27 000	
Totals	479 130	479 130



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**Additional information:**

- A physical inventory count on 31 December 2030 showed inventory on hand worth \$31 700.
- As at 31 December 2030, Prepaid insurance amounted to \$600.
- A lump sum repayment of \$12 000 is made on the principal of the Mortgage – HH Finance on 1 January each year. Interest is charged at 6% p.a., and payable on 28 February and 31 August each year.
- 1% of Net credit sales are estimated to be doubtful of collection.
- The ledger was last closed and reports were prepared on 30 June 2030.

Required

- a. **Show** the General Journal entries necessary to record the balance day adjustments on 31 December 2030. Narrations are **not** required.

- * b. **Prepare** a Post-adjustment Trial Balance for Maranelli Sports as at 31 December 2030.

- c. **Show** the General Journal entries necessary to close the ledger and transfer Drawings to the Capital account. Narrations are **not** required.
- d. **Explain** how balance day adjustments ensure the Income Statement reflects the Accrual basis assumption.
- * e. **Prepare** an Income Statement for Maranelli Sports for the six months ended 31 December 2030.
- f. **Assess** the sales mark-up applied by Maranelli Sports for the six months ended 31 December 2030.
- g. **Explain** two strategies Maranelli Sports could implement to improve expense control.
- * h. **Prepare** a classified Balance Sheet for Maranelli Sports as at 31 December 2030.
- i. **Explain** why it would be unethical to deliberately exclude the effects of balance day adjustments on the Balance Sheet.

Ethical considerations



Exercise 13.13

Reporting for prepaid and accrued expenses

Alannah Fashions has provided the following Pre-adjustment Trial Balance as at 31 March 2030:



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ALANNAH FASHIONS Pre-adjustment Trial Balance as at 31 March 2030		
Account	Debit \$	Credit \$
Accounts Payable		40 600
Accounts Receivable	22 500	
Advertising	1 750	
Allowance for Doubtful Debts		800
Bank		4 100
Capital – Alannah		48 350
Cost of Sales	24 800	
Discount expense	140	
Discount revenue		310
Drawings	21 000	
GST Clearing	400	
Interest expense	90	
Inventory	39 000	
Loan – FinCo.		15 000
Office equipment	6 300	
Prepaid office supplies	180	
Prepaid rent	6 000	
Sales		62 400
Sales returns	400	
Shop fittings	40 000	
Wages	9 000	
Totals	171 560	171 560

Additional information:

- The Loan – FinCo is an interest-only loan, due for repayment on 31 December 2035.
- As at 1 March 2030, there was \$12 000 inventory on hand, but Alannah decided to increase the range of clothing the business had for sale.
- A physical inventory count on 31 March 2030 showed inventory on hand worth \$41 200, but Alannah decided to write this down to \$40 400.
- Yearly rent is paid on 1 August each year.
- On 28 February 2030, Accrued wages was \$310. As at 31 March 2030, \$360 was owing to employees in unpaid wages. The next payment of \$1 600 for wages is due on 2 April 2030.
- The Allowance for doubtful debts is to be increased to \$1 500.
- At 31 March 2030, \$70 of office supplies were still on hand.

Required

- Given that reports are prepared monthly, **show** the General Journal entries to record the balance day adjustments on 31 March 2030. Narrations are **not** required.
- * **Prepare** a Post-adjustment Trial Balance for Alannah Fashions as at 31 March 2030.
- Show** the General Journal entries necessary to close the ledger, and transfer Drawings to the Capital account. Narrations are **not** required.
- Complete** the Profit and Loss Summary account.
- * **Prepare** an Income Statement for Alannah Fashions for March 2030.
- State** two reasons why it may have been necessary to write down the inventory.
- Calculate** the total cash paid to employees during March 2030.
- * **Prepare** a classified Balance Sheet for Alannah Fashions as at 31 March 2030.
- Referring to the information supplied, **suggest** one reason why the GST Clearing account has a debit balance. **Justify** your answer.
- Record** the payment of wages on 2 April 2030 in the General Journal. A narration is **not** required.
- Explain** the effect of the payment on 2 April 2030 on the Accounting equation of Alannah Fashions.



Chapter 14

Accounting for non-current assets 1



Learning intentions

After completing this chapter, you should be able to:

- **identify** the characteristics of a depreciable non-current asset
- **define** depreciation, and other related terms
- **explain** the purpose of depreciation, and its relationship to the Accounting assumptions and Qualitative characteristics
- **calculate** depreciation expense using the straight-line method
- **record** depreciation expense in the General Journal and General Ledger
- **report** for depreciation expense in the Income Statement and Balance Sheet
- **explain** the effect of depreciation expense on the Accounting equation
- **define** the term 'cost' as it refers to non-current assets
- **record** the purchase of a non-current asset in the General Journal and General Ledger
- **record** the receipt of a loan to purchase a non-current asset in the General Journal and General Ledger
- **report** for the cash purchase of a non-current asset and receipt of a loan in the Income Statement, Cash Flow Statement and Balance Sheet.

Key terms

After completing this chapter, you should be familiar with the following terms:

- depreciable asset
- finite life
- depreciation
- depreciation expense
- Historical cost (HC)
- Residual value (RV)
- Useful life (Life)
- depreciable value
- Accumulated depreciation
- Carrying value
- cost of a non-current asset.



14.1 Non-current assets

In order to earn revenue, a business must combine a number of key variables, including products that are in demand, selling prices that the market is willing to pay, sales staff who know about their products and the needs of their customers, and an advertising strategy that communicates this effectively. We have also already discussed the importance of effective management of inventory, Accounts Receivable and Accounts Payable to ensure profit is earned and debts are paid. All of these are elements of success that demand the attention of the owner.

However, the infrastructure that supports actions in these areas should not be overlooked. The premises from which the business operates, the shelving on which its products are displayed, the state of the vehicles it uses to transport its staff and goods, and even the office equipment that supports its administration all contribute to the firm's success or failure.

This chapter considers these **non-current assets** – the economic resources controlled by the business that are not held for resale but rather are used for a number of years, providing economic benefits for more than the next 12 months.

Assets and expenses

There seems to be a (misguided) school of thought that looks upon assets as 'good' because they help companies to earn profit, but expenses as 'bad' because they reduce that profit. But if this were the case, why would a business have expenses at all? Why put up with paying wages, rent, advertising or electricity expenses when all they do is lower profit?

The simple answer is that, just like assets, these expenses are necessary to help earn revenue and generate profit. A business that had no employees, no premises, no advertising and no electricity could simply not do its job. In this way, assets and expenses have something in common: they both assist in the earning of revenue.

However, there is a key difference between an asset and an expense, and this is an application of the Period assumption: an asset will provide a benefit to *future* Periods, while an expense is *incurred* (consumed) *within* a particular Period.

Depreciable assets

Items such as vehicles, office equipment and shop fittings are controlled by the business and will provide an economic benefit for more than 12 months and so should be recorded as non-current assets when they are purchased.

At the same time, just because assets such as these will last for more than 12 months does not mean they will last forever. As they age they wear out, and as their life expires so too does their ability to earn revenue. This means they are **depreciable assets** – they have a **finite life** and will be useful for a fixed period of time, but at some point, in the future, they will no longer be able to earn revenue.

If depreciable assets will not last forever, it means that their value is in fact being 'consumed', but this consumption is happening *over time*. (We may not be able to see this consumption, but that does not mean that it is not happening). This means that every year *part* of the value of the asset is consumed, until – at the end of its life – the asset's revenue-earning capacity is wholly consumed, and it is unable to earn revenue any longer.

depreciable asset

a non-current asset that has a finite life and must be depreciated over its life

finite life

the limited period of time (usually measured in years or sometimes in units of use) for which a non-current asset will exist

Under the Accrual basis assumption, that *part* of the asset's value that is consumed each year should be recognised as an expense *incurred*, and the process of calculating *how much* value has been incurred in each Period is called depreciation.

(Assets that have an infinite or never-ending life – where the economic benefit will continue forever – are *not* depreciable assets, as they may be used but are never *used up* or consumed. This may apply to an asset such as land, but few other items.)

Depreciation of non-current assets

Although frequently used to describe the expense, the term depreciation actually refers to the process – the Accounting procedure – that creates depreciation expense.

Depreciation – the allocation of the cost of a non-current asset over its Useful life – is an attempt to calculate how much of the asset's value has been incurred (consumed) in each Period of its life. It therefore *spreads out* or *allocates* the cost of the asset over the years in which it is useful for earning revenue, rather than treating all of the cost as an expense in any one year.

As a result of this process, **depreciation expense** is created representing that part of the cost or value of a non-current asset that has been *incurred in the current Period*.

depreciation

the allocation of the cost of a non-current asset over its Useful life

depreciation expense

that part of the cost of a non-current asset that has been incurred in the current Period

Accounting assumptions and Qualitative characteristics

By calculating the expense incurred in the current Period, the process of depreciation upholds the Accrual basis assumption, allowing profit to be calculated accurately by matching revenues earned and against expenses incurred in a particular Period. Depreciation does this by recognising as an expense only that part of the cost of a non-current asset that is incurred (consumed) in the current Period.

This will also ensure that the Income Statement upholds *Relevance* by including all information that may be capable of making a difference to decision-making, as it will show the expense incurred in the current Period. The Balance Sheet will also show a more Relevant valuation of the non-current asset (more on this in the following pages).

On **1 January 2030**, Lane Grove Furniture paid **\$32 000** (plus **\$3 200 GST**) for a new delivery vehicle. It is expected that it will be kept for five years.

Example

Let us deal first with the **GST**, which is excluded from our consideration of depreciation because it is not included in the cost of the vehicle; it actually represents a reduction in the GST liability owed to the ATO.

But what about the vehicle itself?

At purchase date (1 **January 2030**), the vehicle is clearly a non-current asset. The vehicle is an economic resource controlled by the firm, and the entire **\$32 000** is a *future* economic benefit (in terms of the deliveries it can do) that will exist for more than 12 months (until the vehicle can no longer make deliveries).

Study tip

If the GST Clearing account has a debit balance, GST paid will increase this asset rather than decrease a liability.

By 31 **December** 2030, the situation will have changed. Assuming that the business still has the vehicle, it has not been entirely consumed, so the entire \$32 000 should not be reported as an expense for the year ended 31 December 2030. Indeed, the vehicle will still be available to provide an economic benefit in future Periods (2031 and onwards) and so should still be reported as a non-current asset.

However, the vehicle is a depreciable asset with a finite life: slowly but surely, the productive capacity of the vehicle will be consumed. This will not happen in one Period, but rather over a number of Periods, so *part* of the asset's value should be reported as an expense for the year ended 31 December 2030, and this amount will be calculated by the process of depreciation. The remainder – the part yet to be incurred (consumed) – should be reported as a non-current asset; that is, \$32 000 less the amount consumed so far.



Review questions 14.1

- 1 **Define** the term 'non-current asset' and **list** three examples of non-current assets.
- 2 **Explain** what assets and expenses have in common.
- 3 Referring to the Going concern assumption, **explain** the key difference between an asset and an expense.
- 4 **Identify** the characteristics of a depreciable non-current asset.
- 5 **Explain** why it is **not** necessary to calculate depreciation for assets such as land.
- 6 **Define** the terms:
 - depreciation
 - depreciation expense.
- 7 Referring to the Accrual basis assumption, **explain** the purpose of depreciating non-current assets.
- 8 **Explain** the effect of depreciation on a firm's bank balance.
- 9 **Explain** how depreciation supports *Relevance* in the financial reports.
- 10 **Explain** why GST is excluded from the consideration of depreciation.





14.2 Calculating depreciation expense: straight-line method

There are a number of different ways to calculate depreciation expense, each of which makes different assumptions about the way the asset contributes to revenue, and therefore the way the cost of the asset is incurred.

Straight-line method

The straight-line method of calculating depreciation expense assumes that non-current assets contribute evenly to revenue, doing the same job in the last year of their life as they did in their first. This would be most evident in assets such as fixtures and fittings or office furniture, which perform the same function, and therefore make the same contribution to revenue earning, year after year.

As a result, this method assumes that the value of a non-current asset is incurred evenly over its life, so it allocates the same depreciation expense every year. (If this depreciation expense was plotted on a graph the line would be a straight line, giving the method its name.)

Depreciation expense under the straight-line method is calculated as shown in Figure 14.1:

Figure 14.1 Formula: depreciation expense using straight-line method

$$\begin{aligned} \text{Depreciation expense} &= \frac{\text{Historical cost (HC)} - \text{Residual value (RV)}}{\text{Useful life (Life)}} \\ &= \$ \text{ per annum} \end{aligned}$$

The basic premise is to divide the **Historical cost (HC)** less the **Residual value (RV)** of the asset by the number of years for which it is used (**Useful life**), thus determining how much of that cost is incurred per year.

On 1 January 2030, Big Cycles purchased office furniture for \$5 000 (plus \$500 GST). The furniture will be kept for three years, at which time it will have an estimated Residual value of \$800.

Historical cost (HC)
the original purchase price of the non-current asset

Residual value (RV)
the estimated value of the non-current asset at the end of its Useful life

Useful life (Life)
the estimated period of time for which the non-current asset will be used by the current entity to earn revenue (usually measured in years)

Example

Depreciable value

Residual value refers to the estimated value of the non-current asset at the end of its Useful life. If the business plans to use the asset until it is utterly worthless, the entire cost of the asset will be incurred over the life of the asset *by the business*, and the **Residual value** will simply be zero.

However, the business may dispose of the asset while it still has some value. In this case, the **Residual value** must be deducted from the **Historical cost**, because this is the amount that will not be incurred *by the current business* but by *another Accounting entity*. The amount calculated by deducting **Residual value** from **Historical cost** (in the top line of the equation) is known as the **depreciable value** – the total value of the asset that will be consumed by the current owner/entity and must be allocated as depreciation expense over its Useful life.

depreciable value
the total value of the asset that will be consumed by the current entity, and so must be allocated as depreciation expense over its Useful life

In this example, \$800 worth of **Residual value** will still exist when Big Cycles is finished with the office furniture (and will be consumed by the next owner), so although the asset was purchased for \$5 000, only \$4 200 will be consumed by Big Cycles.

This office furniture will earn revenue for three years, so its cost must be allocated over those three years. Figure 14.2 shows the calculation of depreciation of office furniture:

Figure 14.2 Calculation: depreciation expense using straight-line method

$$\begin{aligned}
 \text{Depreciation expense} &= \frac{\text{HC} - \text{RV}}{\text{Life}} \\
 &= \frac{\$5\,000 - \$800}{3 \text{ years}} \\
 &= \frac{\$4\,200}{3 \text{ years}} \\
 &= \$1\,400 \text{ per annum}
 \end{aligned}$$

In this example, the depreciation process calculates that the business is consuming, and therefore **incurring**, \$1 400 worth of the furniture's value **each year**. This amount would be recorded as an expense in the Income Statement and would also decrease the value at which the furniture is valued in the Balance Sheet.

Time or use?

Note that the straight-line method does not depreciate the asset more or less depending on use; a desk does not deteriorate any faster or slower depending on how long someone is sitting there. In fact, the straight-line method assumes that the asset is consumed over *time*, not according to use, and this is reflected in the formula, which uses 'Useful life' (measured in years) rather than some measure of use.

Use of estimates

One of the key issues in calculating depreciation expense using the straight-line method is estimating the asset's Residual value and Useful life. Without these estimates, depreciation expense cannot be calculated, but the very fact that Residual value and Useful life are estimates raises questions about the extent to which the reports can claim to provide a *Faithful representation* of the firm's performance and position.

However, there are two reasons why non-current assets must still be depreciated. First, depreciation ensures that the Income Statement includes Relevant information that may affect decision-making about profit, by showing the expense related to non-current assets that has been incurred in the current Period. Put simply, to omit this information would undermine decision-making.

Similarly, by showing Accumulated depreciation in the Balance Sheet, it ensures that assets are shown at their Carrying value, which is vital for decision-making about their replacement. (This will be discussed in detail later in this chapter.)

Further, even though it is difficult to Verify the Residual value and Useful life, and therefore the exact amount of depreciation expense, it remains true that reporting *no* depreciation expense would mean an even *less Faithful representation* of the firm's performance. That is, the depreciation expense calculated using estimates of Residual value and Useful life may not be correct, but it is *less incorrect* than reporting no depreciation expense at all. As a result, depreciation based on estimates still provides a more *Faithful representation* than leaving out depreciation altogether.



Review questions 14.2

- 1 **Explain** the assumption about how assets contribute to revenue that underlies the straight-line method of depreciation.
- 2 **Show** the formula for calculating depreciation expense using the straight-line method.
- 3 **Define** the following terms:
 - Historical cost
 - Residual value
 - Useful life.
- 4 **Explain** why each non-current asset must be depreciated individually.
- 5 Referring to one Accounting assumption, **explain** why Residual value is deducted from Historical cost when calculating depreciation expense using the straight-line method.
- 6 **Explain** why depreciation may be said to undermine the *Faithful representation* of the reports.
- 7 **Explain** how depreciation ensures *Relevance* in the reports.
- 8 **Explain** how depreciation contributes to the *Faithful representation* of the reports.



14.3 Calculation issues: straight-line method

The rate of depreciation

The formula used so far calculates the *amount* of depreciation expense expressed in dollar terms, but depreciation can also be expressed as a *rate* or percentage of the Historical cost.

The formula to calculate the rate of depreciation is shown in Figure 14.3:

Figure 14.3 Formula: depreciation rate

$$\begin{aligned}\text{Depreciation rate} &= \frac{\text{Depreciation expense}}{\text{Historical cost}} \times 100 \\ &= \% \text{ per annum}\end{aligned}$$

Using the example regarding the office furniture, the depreciation rate would be calculated as shown in Figure 14.4:

Figure 14.4 Calculation: depreciation rate

$$\begin{aligned}\text{Depreciation rate} &= \frac{\text{Depreciation expense}}{\text{Historical cost}} \times 100 \\ &= \frac{\$1\,400}{\$5\,000} \times 100 \\ &= 28\% \text{ per annum}\end{aligned}$$

This means 28% per annum of the asset's cost will be consumed *each year* for the three years of its life.

The more mathematically aware readers may at this point be a little puzzled: 28% for three years means only 84% of the asset's cost will be consumed years ($28\% \times 3 \text{ years} = 84\%$). What happens to the remaining 16% of the cost? Why is it not allocated as depreciation expense?

The answer is that the **Residual value** accounts for the remaining \$800 (or $16\% \times \$5\,000$), which is not allocated as a depreciation expense as it will *not* be incurred by Big Cycles but by a different entity when it takes control of the asset.

Study tip

Using the formula or the rate to calculate depreciation expense will produce exactly the same answer; the choice of method depends only on the information available.

Calculating depreciation using the rate

In cases where the rate of depreciation is given, the depreciation expense (in dollar terms) can be calculated by simply multiplying the rate by the Historical cost as is shown in Figure 14.5:

Figure 14.5 Formula: depreciation expense using the rate

$$\begin{aligned}\text{Depreciation expense} &= \text{Historical cost} \times \text{Depreciation rate} \\ &= \$ \text{ per annum}\end{aligned}$$

Depreciating of a non-current asset for less than a year

Because the life of the asset is usually measured in years, both formulae (using RV and Life, or just the rate) calculate depreciation expense in terms of amount *per year*. However, if by balance day the firm has had control of the asset for *less than a year*, the depreciation expense figure will need to be applied on a *pro-rata basis*; if the business has had the asset for only one month, then only one month's worth of depreciation expense (1/12 of a year) should be charged as an expense.

Example

On 1 March 2030, Carlton Clothing purchased shop fittings for \$9 000 (plus \$900 GST). The shop fittings are to be depreciated at 15% p.a. Balance day is 30 June 2030.

Study tip

Pay very careful attention to the **date on which the asset is acquired** and the **balance day**, as this will determine how many months' worth of depreciation expense need to be applied.

Depreciation expense for the year would be calculated as shown in Figure 14.6:

Figure 14.6 Calculation: depreciation expense using the rate for one year

$$\begin{aligned}\text{Depreciation expense} &= \text{Historical cost} \times \text{Depreciation rate} \\ &= \$9\,000 \times 15\% \text{ p.a.} \\ &= \$1\,350 \text{ per annum}\end{aligned}$$

However, the shop fittings were purchased on 1 March 2030, so at balance day (30 June 2030) they have been under the control of the business for only **four months** (March, April, May and June 2030). As a result, only **four months'** worth of depreciation should be charged as an **expense** for the period ending 30 June 2030, as is shown in Figure 14.7:

Figure 14.7 Calculation: depreciation expense using the rate for less than a year

$$\begin{aligned}
 \text{Depreciation expense} &= \text{Depreciation expense p.a.} \times \text{Fraction of year} \\
 &= \$1\,350 \text{ per annum} \times 4 / 12 \text{ months} \\
 &= \$450
 \end{aligned}$$

Study tip

Rather than multiply by fractions, such as $1/4$ or $1/2$, it can be safer to multiply by the number of months out of 12; for example, $3/12$ or $6/12$. For example, how many months is $1/3$ of a year? (Did you think three? The answer is four!)

The **depreciation expense** for the **four months** from purchase until balance day is **\$450**, and only this amount should be reported in the Income Statement for the year ended 30 June 2030. The following year, the firm will have control of the shop fittings for the full 12 months, and so for the year ended 30 June 2031 depreciation expense should be reported as **\$1 350**.



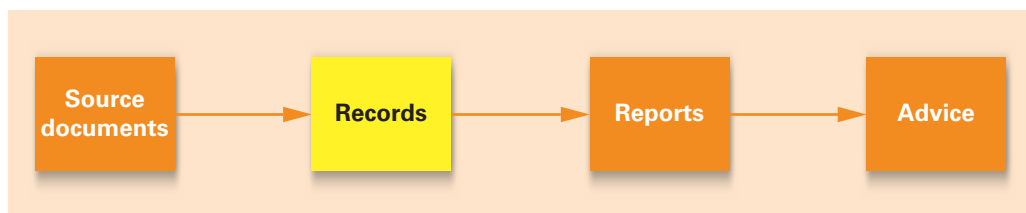
Review questions 14.3

- 1 Show** the formula for calculating the rate of depreciation.
- 2 Show** the formula for calculating depreciation expense using the rate of depreciation.
- 3 Explain** why calculating depreciation expense using the rate may not allocate the entire cost of a non-current asset over its life.
- Referring to one Accounting assumption, **explain** why it is not always accurate to report depreciation expense per annum.
- 5 Explain** the process for calculating depreciation expense when the firm has had control of the asset for less than a year.





14.4 Recording depreciation



As was noted earlier, depreciation is a balance day adjustment. As a result, it is recorded in the General Journal on balance day – at the end of the Period – in common with other balance day adjustments like inventory loss, bad debts, prepaid expenses that have been incurred and accrued expenses.

Example

On 1 January 2030, Mixwell Paints purchased a new van for **\$32 000** plus \$3 200 GST. As at 31 December 2030 (balance day), depreciation on the van had been calculated as **\$4 800** per year (Memo 51).

Depreciation calculates that part of the cost of a non-current asset that has been **incurred** in the current Period. This amount would be recorded by **debiting** a new **expense** account called **Depreciation of Van**.

At the same time, depreciation expense also decreases the value at which the asset is reported in the Balance Sheet. After all, the non-current asset is an economic resource, but by depreciating the asset we are recognising that some of the value of this resource has now been consumed. A reduction in the value of an asset would normally be recorded as a credit entry, but rather than credit the asset account directly, the **credit** entry is made to a new account called **Accumulated depreciation of Van**. This account is a negative asset account.

Whereas depreciation expense refers to the amount incurred in the *current* Period, **Accumulated depreciation** refers to the amounts of depreciation expense that have accumulated (or built up) *over the life of the asset so far*. Accumulated depreciation will grow every year as the depreciation expense for each Period is added to it.

Figure 14.8 shows how this balance day adjustment for depreciation expense would be recorded in the General Journal:

Accumulated depreciation

the total value of a non-current asset that has been incurred over its life thus far

Figure 14.8 General Journal: depreciation expense

General Journal			
Date	Details	Debit \$	Credit \$
Dec. 31	Depreciation of Van	4 800	
	Accumulated depreciation of Van		4 800
	Yearly depreciation of Van – straight-line method (Memo 51)		

Note that the accounts are titled 'Depreciation of Van' and 'Accumulated depreciation of Van' rather than just 'Depreciation' or 'Accumulated depreciation'. Given that most businesses will depreciate more than one non-current asset, it is imperative to identify precisely which asset is being depreciated.

The General Journal entry in Figure 14.8 would be posted to the General Ledger as shown in Figure 14.9:

Figure 14.9 General Ledger: depreciation expense

General Ledger Van (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1	Bank	32 000			
Depreciation of Van (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 31	Acc. dep. of Van	4 800			
Accumulated depreciation of Van (–A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Dec. 31	Depreciation of Van	4 800

Note that as a result of recording the **balance day adjustment** for depreciation expense, there is no change to the actual Van account – it continues to be shown in the General Ledger at its original purchase price of **\$32 000**, which is *Verifiable* and, as a consequence, provides a *Faithful representation* of its value at the time it was purchased.

Effect on the Accounting equation

The balance day adjustment for depreciation expense has the following effect on the Accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Increase Accumulated depreciation of Van)	4 800
Liabilities	No effect	
Owner's equity	Decrease (Depreciation of Van expense decreases Net Profit)	4 800

Closing and balancing the ledger

As an expense, the Depreciation of Van account must be closed to the Profit and Loss Summary account at the end of each Period. In fact, it will open and close on the very same day, leaving it with a zero balance at the end of the Period. Accumulated depreciation of Van, on the other hand, is a negative asset and therefore an ongoing account; it will be balanced at the end of the Period, with its balance carried forward to the next.

Study tip

Because each non-current depreciable asset is different in terms of its Useful life (Life) and Residual value (RV), each must be depreciated individually.

Study tip

Depreciation is an area where intelligent abbreviations can be used.

Figure 14.10 shows how the General Ledger accounts would appear after closing and balancing:

Figure 14.10 General Ledger: after closing and balancing

General Ledger					
Depreciation of Van (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 31	Acc. dep. of Van	4 800	Dec. 31	Profit and Loss Summary	4 800
		4 800			4 800

Accumulated depreciation of Van (–A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 31	Balance	4 800	Dec. 31	Depreciation of Van	4 800
		4 800			4 800
			1/1/31	Balance	4 800

The entry to close the Depreciation of Van account would be made at the same time that all the expense accounts (such as Cost of Sales, Wages and Advertising) were closed. The depreciation expense account would never be closed on its own. (See Chapter 10 for a reminder.)

Subsequent periods

Depreciation in subsequent periods will be recorded using the same debit and credit entries as those shown in Figure 14.8 and posted to the General Ledger as shown in Figure 14.9. While the Depreciation of Van account would continue to open and close on the same day, reflecting only the depreciation expense for that current Period, the balance of the Accumulated depreciation of Van account would continue to grow as it ‘accumulated’ the amounts of depreciation expense incurred across the entire life of the asset thus far.



Figure 14.11 shows how the Depreciation of van and Accumulated depreciation of Van accounts would appear after closing and balancing on 31 December 2031:

Figure 14.11 General Ledger: subsequent periods

General Ledger Depreciation of Van (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
31/12/31	Acc. dep. of Van	4 800	31/12/31	Profit and Loss Summary	4 800
		4 800			4 800

Accumulated depreciation of Van (–A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
31/12/31	Balance	9 600	1/1/31	Balance	4 800
			31/12/31	Depreciation of Van	4 800
		9 600			9 600
			1/1/32	Balance	9 600

The Depreciation of Van account had been closed at the end of 2030, so the **Depreciation expense for 2031** is the only entry in that account until it is closed again on 31 December 2031.

However, the Accumulated depreciation of Van account already had a **balance of \$4 800**: the amount accumulated from last year (2030). When depreciation (of **\$4 800**) for the current year (2031) is recorded, the balance of this account increases to **\$9 600**. Once again, the account would be balanced in readiness for the next period (2032).

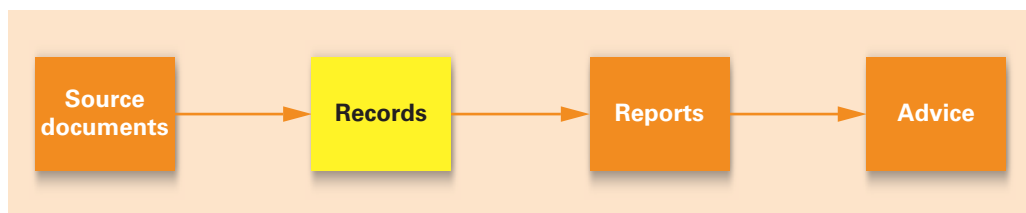


Review questions 14.4

- Show** the General Journal entries to record the balance day adjustment for depreciation expense.
- State** one reason why the ledger accounts must name the asset being depreciated.
- State** the effect of depreciation expense on the Accounting equation.
- Referring to one Accounting assumption, **explain** the difference between Depreciation expense and Accumulated depreciation.
- Explain** why the depreciation expense account must be closed at the end of the Period.
- Explain** why the balance of the Accumulated depreciation account is greater than the depreciation expense in the second year of an asset's life.



14.5 Reporting depreciation



Once depreciation expense has been recorded in the General Ledger, it will affect both the Income Statement and the Balance Sheet.

The Income Statement

Reporting depreciation in the Income Statement is probably the easiest part of Accounting for depreciation. Because depreciation is an expense, it is reported in the Income Statement with all the 'Other expenses', such as Wages, Advertising and Rent expense. Figure 14.12 shows how Depreciation of Van would be reported in the Income Statement for 2031:

Figure 14.12 Income Statement: depreciation expense

MIXWELL PAINTS Income Statement for 2031		
	\$	\$
Revenue		
Sales	212 000	
less Sales returns	2 000	210 000
Less Cost of Goods Sold		
Cost of Sales	124 000	
Buying expenses	3 000	127 000
Gross Profit		83 000
less Inventory loss		500
Adjusted Gross Profit		82 500
add Other revenue		
Discount revenue		400
		82 900
Less Other expenses		
Advertising	6 000	
Bad debts	900	
Depreciation of Van	4 800	
Discount expense	400	
Rent expense	17 000	
Wages	31 000	60 100
Net Profit		22 800

Only the **depreciation expense** (the amount consumed in the current Period) is reported in the Income Statement. Accumulated depreciation is a negative asset, not an expense, and so it must not be reported in the Income Statement.

The Balance Sheet

The first effect of depreciation on the Balance Sheet is via owner's equity. As we have already seen, depreciation expense decreases Net Profit, and in terms of the Balance Sheet, this decreases owner's equity.

The second effect occurs on the asset side. Accumulated depreciation reports the value of the asset that has been consumed *over its life so far*, and the balance of this negative asset account is reported directly under the asset itself, as shown in Figure 14.13:

Figure 14.13 Balance Sheet: Accumulated depreciation

MIXWELL PAINTS Balance Sheet (extract) as at 31 December 2031		
	\$	\$
Non-Current Assets		
Van	32 000¹	
Less Accumulated depreciation	9 600 ²	22 400 ³

Note that now instead of just reporting the asset as one figure, three are involved:

1 Historical cost \$32 000

To ensure the reports continue to provide a *Faithful representation* of the asset, it must always be reported initially at its Historical cost (its original purchase price) as this amount is *Verifiable* by reference to the source document and thus neutral and free from bias.

2 Accumulated depreciation \$9 600

Because some of the asset's value has been consumed, it is no longer appropriate to report it at its Historical cost alone; in order to ensure *Relevance*, the Balance Sheet must also report the asset's Accumulated depreciation – the total value of the asset that has been consumed over its life so far. In this case, the van has been depreciated \$4 800 per year for each of the two years the asset has been under the firm's control.

3 Carrying value \$22 400

The **Carrying value** is calculated by deducting any Accumulated depreciation from the Historical cost of the asset. It represents the unallocated cost of the asset; that is, the value of the asset that is yet to be incurred and therefore yet to be allocated as depreciation expense (plus any Residual value). Because this Carrying value is yet to be incurred, it represents a future economic benefit, which should by now be obvious as the definition of an asset!

Carrying value

the value of a non-current asset that is yet to be incurred/allocated as an expense, plus any residual value

Subsequent periods

As the asset is depreciated, it will be the Accumulated depreciation figure that increases, thus decreasing the Carrying value. For example, the van owned by Mixwell Paints will appear in successive Balance Sheets as shown in Figure 14.14:

Figure 14.14 Balance Sheet: successive periods

MIXWELL PAINTS Balance Sheet (extract) as at 31 December				
	2030	2031	2032	2033
Non-Current Assets				
Van	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

Study tip

Carrying value is also known as carrying cost, written-down value, unallocated cost and book value.

Ethical considerations

Given its effect on the Income Statement and the Balance Sheet, it might be said that the omission from the reports of the effects of depreciation is actually unethical, as omitting depreciation expense would mean the reports would not include all Relevant information that might make a difference to decision-making.

Ethical considerations

Specifically, an Income Statement that did not report depreciation expense would understate expenses and overstate profit, and it might lead the owner to make poor decisions about expense control. As a result, a Balance Sheet that did not include the effects of depreciation would overstate owner’s equity, but it would also overstate the value of non-current assets, which might negatively affect decisions about asset replacement and those based on the net worth of the business.

Representing depreciation graphically

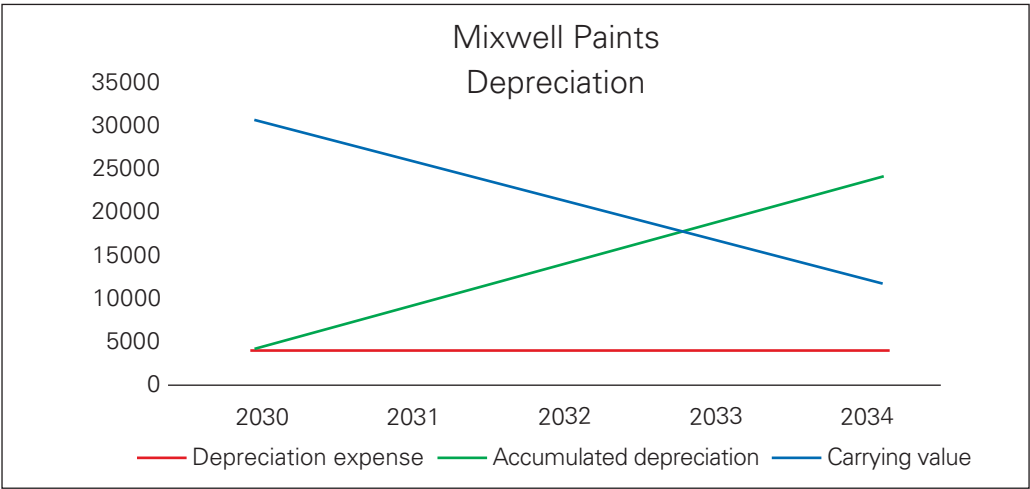
In order to satisfy *Understandability*, reports must be prepared in a manner that is readily understandable by the user, with the preparation of graphs one simple strategy that can be employed. Preparing a graph can make it easier for the owner to understand both the idea of depreciation and its effect on the Accounting reports.

Figure 14.15 shows how the depreciation expense, Accumulated depreciation and Carrying value could be represented graphically:

Figure 14.15 Graphing depreciation



Video 14.1
Straight-line
depreciation
graph



This graph clearly shows why it is called the ‘straight-line’ method, as the amount of depreciation expense (\$4 800) is constant every year, creating a straight line across the life of the asset.

The Accumulated depreciation grows at a constant rate, increasing every year by the amount of the depreciation expense (\$4 800). At the same time, the Carrying value starts at the Historical cost (\$32 000) and moves in exactly the opposite direction, decreasing every year by the amount of the depreciation expense (\$4 800) and ending at the Residual value of \$8 000 (if the graph shows the asset’s entire Useful life).



Review questions 14.5

- 1 **Explain** why depreciation expense is reported in the Income Statement but Accumulated depreciation is not.
- 2 Referring to the appropriate Qualitative characteristics, **explain** why the original purchase price of a non-current asset must be reported in the Balance Sheet.
- 3 **Define** the term 'Carrying value'.
- 4 Referring to one Qualitative characteristic, **explain** why non-current assets must be reported at their Carrying value in the Balance Sheet.
- 5 **Explain** why it would be unethical to omit the effects of depreciation from the Income Statement and Balance Sheet.
- 6 **Explain** why the line for depreciation expense under the straight-line method is 'flat'.
- 7 **Explain** why the lines for Carrying value and Accumulated depreciation move in opposite directions over the life of the asset.
- 8 **Explain** why the line for Carrying value does **not** end at zero.

Ethical considerations



14.6 Purchasing non-current assets

As was stated at the beginning of this chapter, the process of depreciation involves allocating the cost of a non-current asset over its Useful life. So far, we have only examined assets whose cost is their purchase price. However, it is quite common for a business to modify an asset, or incur costs for its installation, and these amounts must also be included in this definition of 'cost'. After all, if these other costs will provide a future economic benefit *over the life of the asset*, then they should be classified as non-current assets and depreciated *over the life of the asset*.

Cost of a non-current asset

The **cost of a non-current asset** is thus defined as all costs incurred in order to bring the asset into a location and condition ready for use, which will provide a benefit for the life of the asset. Such costs might include the purchase price/supplier's price, delivery costs, modification costs and installation costs.

cost of a non-current asset

all costs incurred in order to bring the asset into a location and condition ready for use, which will provide a benefit for the life of the asset

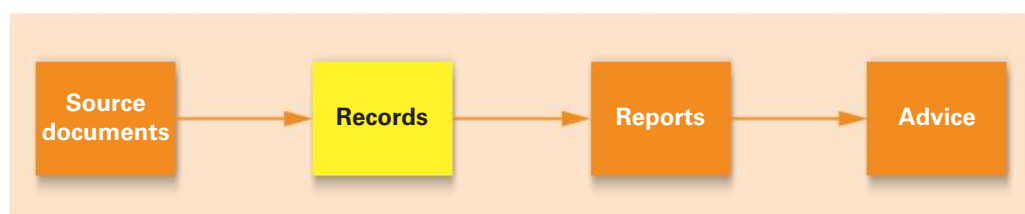


Example

On 28 February 2030, Danny's Donuts paid cash to purchase a new oven. The document is shown below:

 Owen's Ovens Back Porepukah Rd, Bright VIC 3741 ABN: 01 320 664 989		Receipt #55
Sold to: Danny's Donuts Clyde St, Myrtleford 3737 ABN: 32 001 656 887		Tax invoice 28 February 2030
Item	Total	
Commercial oven (Cookmaster 1000)	22 000	
Installation fee	3 000	
Maintenance fee (first year of operations)	1 000	
GST (10%)	2 600	
Total	28 600	
Amount paid (EFT Trans. 3002)	28 600	
Balance owing	nil	

Recording: cash purchase of a non-current asset



We have already noted that the **GST** is not part of the cost of the asset, as it does not affect the economic benefit provided by the asset. Instead, it leads, via a **debit** entry in the **GST Clearing** account, to a decrease in the liability owed to the ATO and a reduction in the next GST settlement (or perhaps even a GST refund).

What of the other costs?

Both the **supplier's price** (\$22 000) and the **installation fee** (\$3 000) are necessary to bring the asset into a condition and location ready for use. But just as importantly, they will not be consumed in one year but will bring a benefit *over the life of the asset*. This means they must be included in the depreciable cost of the asset as shown in Figure 14.16:

Figure 14.16 'Cost' of a non-current asset

	Supplier's price for the oven	\$22 000
plus	Installation fee	<u>\$3 000</u>
	Cost of oven	\$25 000

This figure of \$25 000 is the amount that will be debited to the Oven account in the General Ledger and used as the cost in the calculation of depreciation. There will be no separate account for installation fee.

The maintenance fee (\$1 000), on the other hand, may also be a necessary cost, but it only covers the first year of operations, so its benefit will be consumed and therefore incurred within a year. This means it is not part of the value of a non-current asset. Any costs where the benefit does not extend for the life of the asset are not included in the cost of the asset, but rather treated separately.

Indeed, as this amount is paid in advance and expected to provide a benefit for only the next 12 months, it is in fact a current asset called Prepaid maintenance fee. It should not be recorded as part of the cost of the oven but rather debited to its own separate ledger account and then be subject to a balance day adjustment at the end of the Period to calculate the maintenance fee expense incurred.

Figure 14.17 shows how the cash purchase of the oven would be reported in the General Journal of Danny's Donuts:

Figure 14.17 General Journal: cash purchase of a non-current asset

Date	Details	Credit \$	Debit \$
Feb. 28	Oven	25 000	
	Prepaid maintenance fee	1 000	
	GST Clearing	2 600	
	Bank		28 600
	Cash purchase of oven and prepayment of maintenance fee for first year of operations (EFT Trans. 3002)		

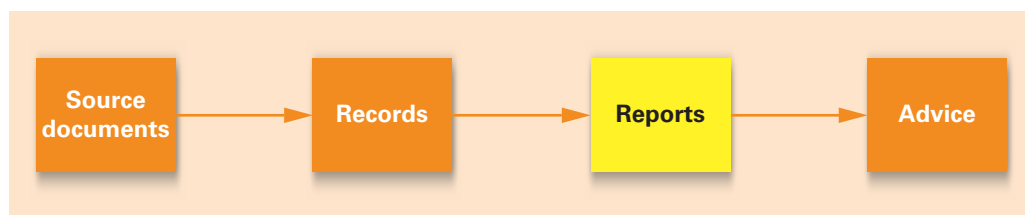
After posting the General Journal, the General Ledger would appear as shown in Figure 14.18:

Figure 14.18 General Ledger: cash purchase of a non-current asset

General Ledger Bank					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Feb. 1	Balance	12 000	Feb. 28	Oven / Prepaid maintenance fee / GST Clearing	28 600
Oven (NCA)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Feb. 28	Bank	25 000			
Prepaid Maintenance fee (CA)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Feb. 28	Bank	1 000			
GST Clearing (A/L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Feb. 28	Bank	2 600	Feb. 1	Balance	4 500

In the Bank account, there are actually three accounts named in the cross-reference as the cash paid covered the cost of the Oven, the Prepaid maintenance fee and the GST paid, but the cross-reference in these accounts is simply Bank as this is the only account to which they are linked.

Reporting: cash purchase of a non-current asset



Income Statement

In terms of the Income Statement, the cash purchase of a non-current asset does not create a revenue or expense, so there is nothing to report until the balance day adjustments are recorded for depreciation expense and any prepaid expenses that have been incurred.

Cash Flow Statement

In terms of the Cash Flow Statement, however, the cash purchase of a non-current asset creates cash flows in two areas. As a cash outflow related to the purchase of a non-current asset, the cash paid for the non-current asset itself (in this case the \$25 000 paid for the Oven) will be reported as an Investing activity, while the cash paid for Prepaid maintenance fee (\$1 000) and the GST paid (\$2 600) will be reported as Operating activities as they relate to the day-to-day trading activities of the firm.

Figure 14.19 shows an extract of the Cash Flow Statement of Danny's Donuts for February 2030 showing these cash flows:

Figure 14.19 Cash Flow Statement (extract): cash purchase of a non-current asset

DANNY'S DONUTS Cash Flow Statement (extract) for February 2030		
	\$	\$
CASH FLOWS FROM OPERATING ACTIVITIES		
Sales *	55 000	
GST received *	5 500	60 500
Payments to Accounts Payable *	(24 000)	
Wages *	(10 000)	
Electricity *	(1 500)	
Advertising *	(2 000)	
GST paid *	(2 950)	
Prepaid maintenance fee	(1 000)	(41 450)
Net Cash Flows from Operating Activities		19 050
CASH FLOWS FROM INVESTING ACTIVITIES		
Cash purchase of oven		(25 000)

*Other probable cash flows have been added to show a more complete report.

Note that although \$2 600 GST was paid on the purchase of the Oven and Prepaid maintenance fee, the \$2 950 reported in the Cash Flow Statement also includes the GST paid on the Advertising (\$200) and Electricity (\$150). Further, even though it includes GST paid on the purchase of a non-current asset (the Oven), the payment of GST is a day-to-day trading activity, so the entire amount is reported as an Operating activity.

Balance Sheet

In the Balance Sheet, the cash purchase will actually result in an overall decrease in assets and liabilities, as although the non-current asset **Oven** increases, and the current asset **Prepaid maintenance fee** also increases, the current asset **Bank** decreases by more, as it includes the payment to decrease the **GST liability**. This is shown in Figure 14.20:

Figure 14.20 Balance Sheet (effects): cash purchase of a non-current asset

DANNY'S DONUTS Balance Sheet (effects) as at 28 February 2030			
	\$		\$
Current Assets		Current Liabilities	
Bank Decrease	28 600	GST Clearing Decrease	2 600
Prepaid maintenance fee Increase	1 000		
Non-Current Assets			
Oven Increase	25 000		
Total Assets Decrease	2 600	Total Equities Decrease	2 600

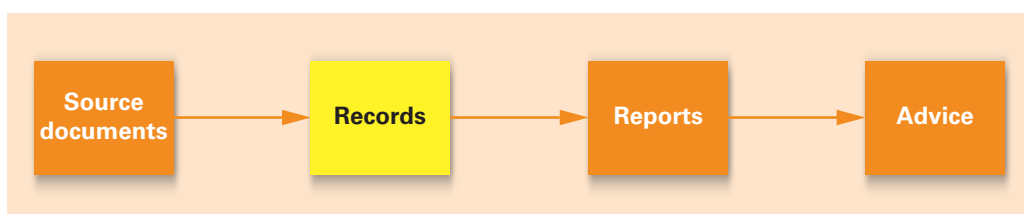
Purchase of a non-current asset using a loan

Given the large amounts of cash required to purchase some non-current assets (such as equipment, vehicles and even premises), it is common for a business to take out a loan first, and then use these funds to purchase the asset. In cases such as this, the entries to purchase the asset do not change, but an initial entry is required to show the receipt of cash from the loan.

Danny's Donuts had financed the purchase of the new oven by taking out a loan of \$30 000 from Bank South on 16 February 2030 (EFT Trans. 2982).

**Example
(extra
information)**

Recording: receipt of a loan



The receipt of the cash from Bank South would be recorded in the General Journal as shown in Figure 14.21:

Figure 14.21 General Journal: receipt of loan

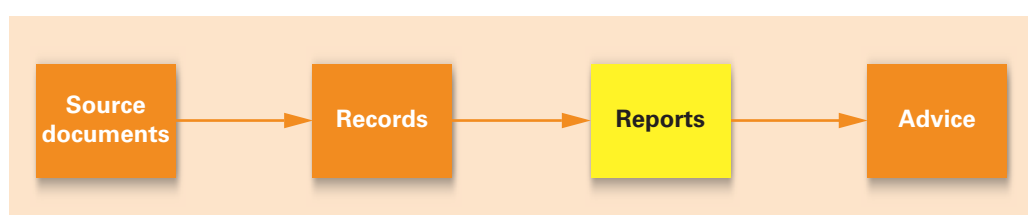
General Journal			
Date	Details	Debit \$	Credit \$
Feb. 16	Bank	30 000	
	Loan – Bank South		30 000
	Receipt of loan from Bank South to finance purchase of new oven (EFT Trans. 2982)		

Including the cash purchase of the oven (as shown in Figure 14.18), the Bank account would appear as shown in Figure 14.22:

Figure 14.22 General Ledger: cash purchase of a non-current asset using a loan

General Ledger Bank					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Feb. 1	Balance	12 000	Feb. 28	Oven / Prepaid Maintenance fee /	28 600
16	Loan – Bank South	30 000		GST Clearing	

Reporting: receipt of a loan



The receipt of the loan increases assets (Bank) and also increases liabilities (Loan – Bank South), meaning it does not change owner's equity and therefore it does not meet the definition of a revenue or expense. As a result, it is not reported in the Income Statement.

In the Cash Flow Statement, the receipt of the loan is reported as a Financing activity as it is a cash flow that changes the firm's financial structure, making it more reliant on borrowed funds.

Figure 14.23 shows an extract of the Cash Flow Statement of Danny's Donuts for February 2030 including the receipt of the loan:

Figure 14.23 Cash Flow Statement (extract): cash purchase of a non-current asset using a loan

DANNY'S DONUTS Cash Flow Statement (extract) for February 2030		
	\$	\$
CASH FLOWS FROM OPERATING ACTIVITIES		
Sales *	55 000	
GST received *	5 500	60 500
Payments to Accounts Payable *	(24 000)	
Wages *	(10 000)	
Electricity *	(1 500)	
Advertising *	(2 000)	
GST paid *	(2 950)	
Prepaid maintenance fee	(1 000)	(41 450)
Net Cash Flows from Operating Activities		19 050
CASH FLOWS FROM INVESTING ACTIVITIES		
Cash purchase of oven		(25 000)
CASH FLOWS FROM FINANCING ACTIVITIES		
Loan – Bank South		30 000

*Other probable cash flows have been added to show a more complete report.

In the Balance Sheet, both assets (Bank) and liabilities (Loan – Bank South) increase by the amount of the cash received.



Review questions 14.6

- 1 **Define** the term 'cost' as it refers to non-current assets.
- 2 **Identify** three costs that might be included in the cost of a non-current asset.
- 3 **Explain** why GST is excluded from the cost of a non-current asset.
- 4 **Explain** why yearly costs are excluded from the cost of a non-current asset.
- 5 **Explain** how the cash purchase of a non-current asset is reported in the Income Statement.
- 6 **Explain** how the following items related to the cash purchase of a non-current asset are reported in the Cash Flow Statement:
 - non-current asset
 - prepaid expenses
 - GST paid.
- 7 **Explain** why the amount of GST paid reported in the Cash Flow Statement is likely to be different from the amount of GST paid on the cash purchase of a non-current asset.
- 8 **Explain** how the receipt of a loan is reported in the Cash Flow Statement.



Where have we been?

- Depreciation is the allocation of the cost of a non-current asset over its Useful life.
- Depreciation expense represents that part of the value of a non-current asset that is incurred in a particular Period, upholding the Accrual basis assumption.
- The purpose of depreciation is to ensure that an accurate profit is calculated by comparing revenues earned against expenses incurred in the current Period.
- The straight-line method assumes that non-current assets contribute evenly to revenue over their life. As a result, depreciation expense is allocated evenly over the asset's life.
- The cost of an asset includes all costs incurred in order to bring the asset into a location and condition ready for use, which will provide a benefit for the life of the asset.
- The estimates used for Residual value and Useful life raise questions about the *Faithful representation* of reports that include depreciation. However, depreciation is important for upholding *Relevance*, and reports with depreciation provide a more *Faithful representation* than those without.
- Some businesses will finance the purchase of a non-current asset by taking out a loan.
- Cash paid for a non-current asset is an Investing outflow, but the GST paid is an Operating outflow.
- The receipt of a loan is a Financing inflow.

Exercises

Please note: asterisks indicate that an answer for that question is available in the Selected Answers section at the end of this book.



Exercise 14.1

Calculating depreciation

On 1 July 2029, Shovel and Shift purchased new office furniture for \$15 000 (plus GST). It is expected that the office furniture will have a Useful life of five years and will be disposed of at that time for \$3 000.

Required

- Define** the term 'depreciation'.
- Using the straight-line method, **calculate** Depreciation of Office furniture for the year ended 30 June 2030.
- Explain** why the GST paid on the purchase of the office furniture is **not** included in the calculation of depreciation.
- Explain** why the Residual value of the office furniture is deducted from its Historical cost in the calculation of depreciation expense.



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Exercise 14.2

Calculating depreciation

On 1 July 2029, Fragrant Perfumes purchased shelving for \$33 000 (including GST). The shelving has an estimated Useful life of eight years and a Residual value of \$6 000.

Required

- Referring to one Accounting assumption, **explain** why it is necessary to depreciate non-current assets.
- Using the straight-line method, **calculate** Depreciation of Shelving for the year ended 30 June 2030.
- Calculate** the rate of Depreciation of Shelving per annum.
- Discuss** whether depreciation means the financial reports provide a more or less *Faithful representation*.



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Exercise 14.3

Calculating depreciation: rate

Glenda's Good Guys purchased a new van on 31 December 2029 for \$40 000 (plus GST). The van is to be depreciated using the straight-line method at 10% per annum for the next eight years.

Required

- Calculate** Depreciation of Van for the year ended 31 December 2030.
- Referring to one Qualitative characteristic, **explain** why depreciation expense must be included in the Income Statement.
- Explain** the effect of depreciation on the firm's bank balance.
- Calculate** the Residual value of the van.



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Exercise 14.4

Calculating depreciation: less than a year

On 31 January 2030, Knight's Prawns purchased new cabinets for \$1 800 (plus \$180 GST). It is decided that the cabinets will be depreciated using the straight-line method at 20% per annum (Memo 44).

Required

- Referring to one Accounting assumption, **explain** why the cabinets should **not** be depreciated for a full year.
- Calculate** Depreciation of Cabinets for the year ended 30 June 2030.
- State** the effect on the Net Profit of Knight's Prawns for the year ended 30 June 2030 if a full year of depreciation had been reported as an expense.
- Calculate** Depreciation of Cabinets for the year ended 30 June 2031.



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Exercise 14.5

Recording depreciation

On 1 July 2029, Roamin' Blinds purchased new blind-cutting equipment, paying \$13 200 cash (including GST). The equipment is expected to last for six years, at which time it will have a Residual value of \$3 000. On 30 June 2030, the Accounting department received Memo 27 to say that depreciation on the equipment had not yet been recorded.

Required

- Calculate** Depreciation of Equipment for the year ended 30 June 2030.
- Record** Depreciation of Equipment for the year ended 30 June 2030 in the General Journal of Roamin' Blinds.
- Post** the General Journal entry from part **b** to the relevant accounts in the General Ledger of Roamin' Blinds. Balance and close the ledgers where appropriate.
- Show** how equipment would be reported in the Balance Sheet of Roamin' Blinds as at 30 June 2030.
- Referring to one Qualitative characteristic, **explain** why the asset must be shown in the Balance Sheet at its Carrying value.



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Exercise 14.6
Recording depreciation

Jungle Jane sells gym equipment. Its owner has presented the following extract from the firm’s Balance Sheet:

JUNGLE JANE Balance Sheet (extract) as at 30 June 2029		
	\$	\$
Non-Current Assets		
Office furniture	29 000 ¹	
less Accumulated depreciation	9 000 ²	20 000 ³

Additional information:

- The office furniture has an estimated Residual value of \$2 000.
- The Income Statement for the year ended 30 June 2030 showed Depreciation of Office furniture of \$3 000.

Required

- a. **Explain** what is represented by the amounts labelled 1, 2 and 3.
- b. **Record** Depreciation of Office furniture for the year ended 30 June 2030 in the General Journal of Jungle Jane. A narration is not required.
- c. **Post** the General Journal entry (from part b) to the relevant accounts in the General Ledger of Jungle Jane. Balance and close the ledgers where appropriate.
- d. **Show** how office furniture would be reported in the Balance Sheet of Jungle Jane as at 30 June 2032.
- e. **Calculate** the Useful life of the office furniture.



Exercise 14.7
Recording depreciation

As at 30 June 2029, Frosty Fridges had shop fittings that had been purchased for \$20 000 but had a current Carrying value of \$16 000. On 31 March 2030, \$5 500 (including GST) was paid for additional shop fittings. Depreciation is allocated using the straight-line method at the rate of 10% per annum (Memo 23).

Required

- a. **Calculate** Accumulated depreciation of Shop fittings as at 30 June 2029.
- b. **Calculate** Depreciation of Shop fittings for the year ended 30 June 2030.
- c. **Record** Depreciation of Shop fittings for the year ended 30 June 2030 in the General Journal of Frosty Fridges.
- d. **Show** how the Depreciation of Shop fittings and Accumulated depreciation of Shop fittings accounts would appear in the General Ledger after all closing and balancing entries had been made.
- e. Referring to one Qualitative characteristic, **explain** why the original purchase price of the asset is disclosed in the Balance Sheet.
- f. **Show** how the shop fittings would be reported in the Balance Sheet of Frosty Fridges as at 30 June 2030.



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**Exercise 14.8****Cash purchase of a non-current asset**

On 1 May 2030, Showcase World had \$14 000 worth of display cabinets. On 14 May 2030, it ordered more display cabinets at a cost of \$6 600 (including \$600 GST) from Carl's Cabinets (Order 32). The cabinets were delivered on 23 May 2030, and on this date Showcase World paid the amount owing to Carl's Cabinets (EFT payment 2045).



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**Required**

- Explain** why Order 32 would **not** be recorded in the General Journal of Showcase World.
- Referring to the definitions, **explain** why the new cabinets would **not** be recognised as an asset of Showcase World as at 14 May 2030.
- Record** EFT payment 2045 in the General Journal of Showcase World.
- Identify** one other source document that Showcase World would need to use in relation to this transaction, and **describe** how it should be used.

**Exercise 14.9****Cost of a non-current asset**

On 1 July 2029, Eileen's Ladders purchased a computer-linked cash register system for \$10 000 (plus GST) and paid an additional cost of \$4 800 (plus GST) for an annual software licence fee (EFT trans. 4233). Eileen decided to use the straight-line method of depreciation, determining that the system will have a Useful life of five years and a Residual value of \$1 000.



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**Required**

- Explain** why the software licence fee should **not** be included in the cost of the cash register.
- Record** EFT transaction 4233 in the General Journal of Eileen's Ladders.
- Calculate** Depreciation of Cash register for the year ended 30 June 2030.
- Calculate** the rate of depreciation on the cash register.
- Show** how the cash register would be reported in the Balance Sheet as at 30 June 2030.
- Explain** the effect of Depreciation of Cash register on the Accounting equation of Eileen's Ladders as at 30 June 2030.



**Exercise 14.10****Cash purchase of a non-current asset**

On 1 April 2030, Matt's Mats paid cash for a new delivery van. The document for the purchase is shown below:



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 Dan's Vans 105 Blackburn Rd Nunawading VIC 3110 ABN: 173 254 009		
CASH SALE: Matt's Mats, Naismith St, Blackburn VIC 3130 ABN: 90 361 253 007		Tax invoice: Rec X36
		Total
1 April 2030	Delivery van	21 000
	Fitting of shelves	1 500
	Service contract (12 months)	1 200
	GST	2 370
	Total price	\$26 070
	Amount received (EFT transfer 3201)	\$26 070
	Balance owing	nil

Additional information:

- On 1 April 2030, Matt's Mats took out a loan for \$25 000 to purchase the van.
- Matt expects to have the delivery van for five years and then dispose of it for \$6 500 (plus GST).
- The van will be depreciated using the straight-line method.

Required

- Record** the receipt of the loan in the General Journal of Matt's Mats. A narration is **not** required.
- Calculate** the cost of the delivery van.
- Referring to your answer to part **b**, **explain** your treatment of 'fitting of shelves'.
- Record** the purchase of the delivery van in the General Journal of Matt's Mats.
- Show** how the cash flows related to the information above would be classified in the Cash Flow Statement of Matt's Mats for the year ended 30 June 2030.
- Calculate** Depreciation of Van for the year ended 30 June 2030.
- Show** how the service contract would be reported in the Balance Sheet of Matt's Mats as at 30 June 2030.
- Show** how the van would be reported in the Balance Sheet of Matt's Mats as at 30 June 2031.



Exercise 14.11

Depreciation for less than one year

Scratch and Dent Discounters present the following extract from their Balance Sheet as at 1 July 2029:

SCRATCH AND DENT DISCOUNTERS Balance Sheet (extract) as at 1 July 2029		
	\$	\$
Non-Current Assets		
Office furniture	8 000	
less Accumulated depreciation	1 600	6 400

Additional information:

- A specially designed office chair was purchased for cash on 31 January 2030 for \$4 800 (plus GST) (EFT payment 5132).
- Office furniture is depreciated at 10% per annum using the straight-line method (Memo 35).

Required

- Referring to one Accounting assumption, **explain** why the office furniture should be depreciated.
- Calculate** Depreciation of Office furniture for the year ended 30 June 2030.
- Record** Depreciation of Office furniture for the year ended 30 June 2030 in the General Journal of Scratch and Dent Discounters.
- Show** how the Depreciation of Office furniture and Accumulated depreciation of Office furniture accounts would appear in the General Ledger of Scratch and Dent Discounters after all closing and balancing entries had been made.
- Show** how office furniture would be reported in the Balance Sheet of Scratch and Dent Discounters as at 30 June 2030.

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Exercise 14.12

Reporting depreciation

Tim Barr owns Hack and Saw, a store specialising in the sale of saws, chainsaws and axes. The business has provided its Pre-adjustment Trial Balance as at 30 June 2030:



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HACK AND SAW Pre-adjustment Trial Balance as at 30 June 2030		
Account	Debit \$	Credit \$
Accounts Receivable	17 400	
Accumulated depreciation of Display equipment		12 100
Administrative expenses	10 500	
Allowance for doubtful debts		400
Bank		5 300
Capital – Barr		68 000
Cost of Sales	80 000	
Display equipment	49 000	
Drawings	16 000	
GST Clearing		400
Interest expense	5 500	
Inventory	38 000	
Loan – DR Finance (repayable \$500 per month)		35 000
Prepaid advertising	2 800	
Rent expense	26 000	
Sales		160 000
Wages	36 000	
Totals	281 200	281 200

Additional information:

- A physical inventory count on 30 June 2030 showed \$37 100 inventory on hand.
- The display equipment is to be depreciated at 15% p.a. using the straight-line method.
- A seven-month advertising campaign was paid in advance on 1 February 2030.
- Bad debts expense for the year is \$1 350.
- A payment of \$1 500 administrative expenses (plus GST) has been incorrectly posted to Wages of \$1 500 (plus GST).
- Reports are prepared yearly.

Required

- Explain** the purpose of making balance day adjustments.
- Show** the General Journal entries necessary to record the additional information. Narrations are **not** required.
- *c. Prepare** a Post-adjustment Trial Balance for Hack and Saw as at 30 June 2030.
- d. Show** the General Journal entries necessary to close the ledger and transfer Drawings to the Capital account. Narrations are **not** required.
- *e. Prepare** an Income Statement for Hack and Saw for the year ended 30 June 2030.
- f. Evaluate** the mark-up applied by Hack and Saw for the year ended 30 June 2030.
- g. State** two actions Hack and Saw could take to improve Net Profit without changing Adjusted Gross Profit.
- *h. Prepare** a classified Balance Sheet for Hack and Saw as at 30 June 2030.
- i. Discuss** whether the amount of drawings taken by the owner in the year ended 30 June 2030 is appropriate.

**Exercise 14.13****Reporting depreciation**

Nguyen Ski Gear has provided the following Pre-adjustment Trial Balance as at 31 December 2030:



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NGUYEN SKI GEAR Pre-adjustment Trial Balance as at 31 December 2030		
Account	Debit \$	Credit \$
Accounts Payable		18 000
Accounts Receivable	16 000	
Accumulated depreciation of Vehicle		8 000
Bank	2 400	
Capital – Nguyen		32 620
Cost of sales	48 000	
Discount expense	820	
Discount revenue		300
Drawings	14 000	
GST Clearing		700
Interest expense	1 400	
Inventory	24 000	
Loan – NAB (repayable \$9 000 p.a.)		21 000
Prepaid rent expense	18 000	
Sales		120 900
Sales returns	900	
Vehicle	40 000	
Wages	36 000	
Totals	201 520	201 520

Additional information:

- A physical inventory count on 31 December 2030 showed \$24 700 inventory on hand.
- The vehicle is to be depreciated at 10% p.a. using the straight-line method.
- As at 31 December 2030, \$900 wages were still owing to employees.
- Prepaid rent expense as at 31 December 2030 was \$6 000.
- The last reports were prepared on 30 June 2030.

Required

- Show** the General Journal entries necessary to record the additional information. Narrations are **not** required.
- *b. Prepare** a Post-adjustment Trial Balance for Nguyen Ski Gear as at 31 December 2030.
- Referring to one Accounting assumption, **explain** the purpose of closing entries.
- Show** the General Journal entries necessary to close the ledger and transfer Drawings to the Capital account. Narrations are **not** required.
- *e. Prepare** an Income Statement for Nguyen Ski Gear for the six months ended 31 December 2030.
- f. Explain** what the Income Statement reveals about the reputation of Nguyen Ski Gear.
- *g. Prepare** a classified Balance Sheet for Nguyen Ski Gear as at 31 December 2030.
- Referring to your answer to part **g**, **identify** one item that can be used to support the view that the firm's financial position is sound. **Justify** your answer.

**Exercise 14.14****Accounting for non-current assets**

On 1 March 2030, the shop fittings of Funk Fashions were destroyed in a fire, so the owner (Colin Miller) contributed some fittings that he had purchased for his own home (Memo 6). Colin had purchased the fittings in 2026 paying \$12 000, but at the end of February 2030 he had them professionally valued at \$9 400. He estimates that they will be of use for another four years, and by the end of their Useful life expects to sell them for \$1 000 (plus GST).



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**Required**

- a. **Record** Memo 6 in the General Journal of Funk Fashions.
- b. Referring to one Qualitative characteristic, **justify** your valuation of the shop fittings as at 1 March 2030 .
- c. **Calculate** Depreciation of Shop fittings for the year ended 30 June 2030.
- d. **Record** Depreciation of Shop fittings for the year ended 30 June 2030 in the General Journal of Funk Fashions. A narration is **not** required.
- e. **Show** how the following accounts would appear in the General Ledger of Funk Fashions as at 30 June 2030, after all balancing and closing entries have been made:
 - Shop fittings
 - Depreciation of Shop fittings
 - Accumulated depreciation of Shop fittings.
- f. **Show** how shop fittings would appear in the Balance Sheet of Funk Fashions as at 30 June 2031 and 2032.



Exercise 14.15

Accounting for non-current assets

On 31 October 2029, Rendle Clothing borrowed \$25 000 from FCC Finance to purchase a new delivery van. On the same day, the business purchased a van, paying cash. The van was advertised for \$24 000 (plus GST), but the owner bargained with the salesperson, who agreed to provide the van and \$500 worth of on-road costs for \$24 200 (including GST). Installation of heavy-duty suspension cost a further \$900 plus GST, and the van has been insured for fire and theft with OOMY Insurance at an annual cost of \$4 800 (plus GST). The van is expected to have a Useful life of five years, after which it can be traded in on a new one with a trade-in value of approximately \$4 900.



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Required

- Calculate** the cost of the van purchased on 31 October 2029.
- Referring to your answer to part **a**, **explain** your treatment of:
 - the heavy-duty suspension
 - insurance.
- Record** the receipt of the loan and the cash purchase of the van in the General Journal of Rendle Clothing. Narrations are **not** required.
- Referring to one Accounting assumption, **explain** why the entire cost of the van cannot be treated as an expense in the year ended 30 June 2030.
- Calculate** Depreciation of Van for the year ended 30 June 2030 using the straight-line method.
- Record** Depreciation of Van for the year ended 30 June 2030 in the General Journal of Rendle Clothing. A narration is **not** required.
- Referring to at least two Qualitative characteristics, **discuss** the ethical considerations of reporting for depreciation.
- In July 2030, the delivery driver fell ill so the van was not used for deliveries for two months. **Explain** whether the van should be depreciated for July and August 2030.

Ethical considerations



Chapter 15

Accounting for non-current assets 2



Learning intentions

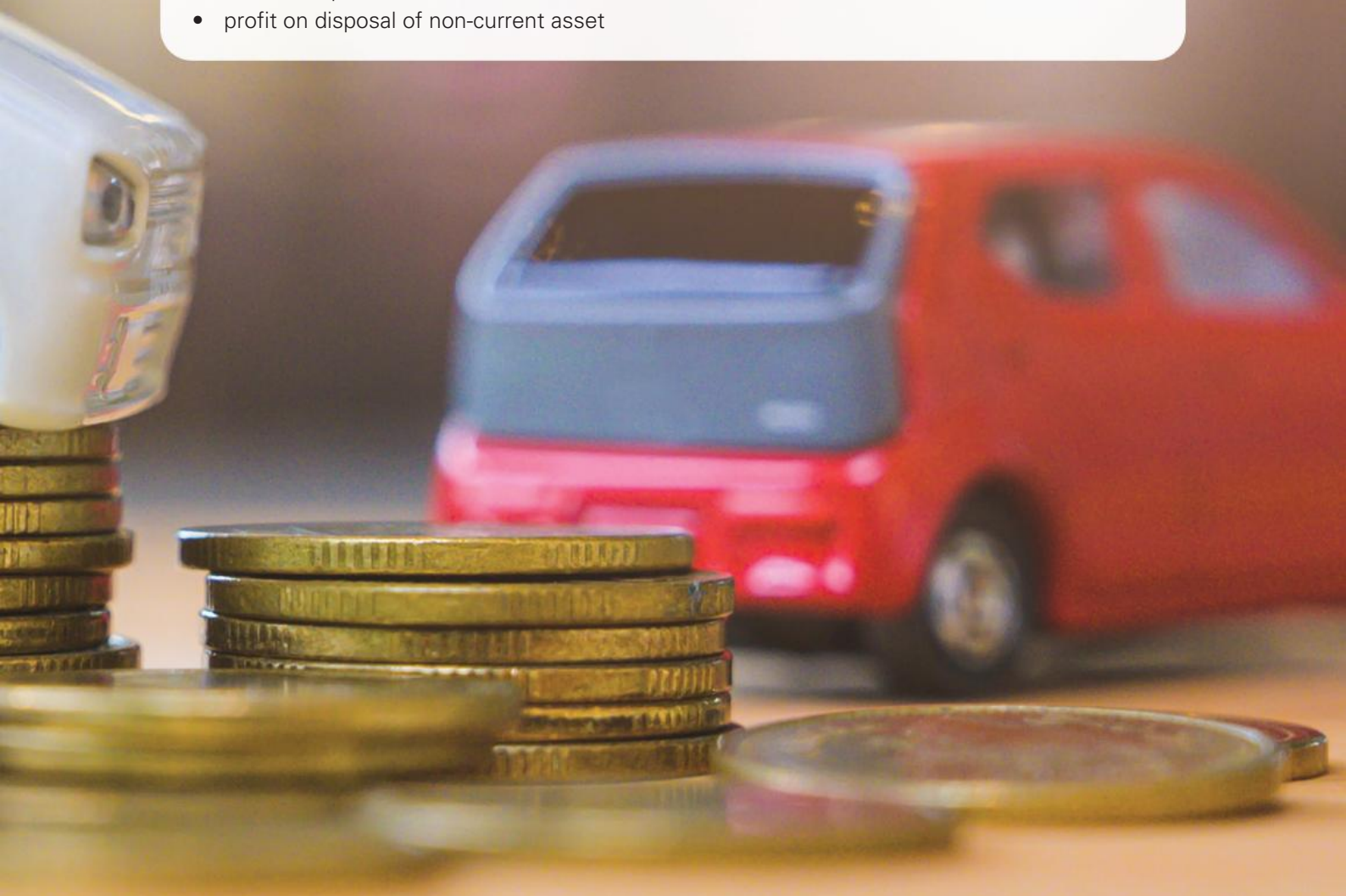
After completing this chapter, you should be able to:

- **calculate** depreciation expense using the reducing balance method
- **justify** the selection of a particular depreciation method
- **model** the effect on the Accounting reports of using different depreciation methods
- **record** a cash sale of a depreciable non-current asset in the General Journal and General Ledger
- **identify** and **explain** the reasons for a profit or loss on the disposal of a non-current asset
- **record** a trade-in of a depreciable non-current asset in the General Journal and General Ledger
- **report** a profit or loss on the disposal of a non-current asset in the Income Statement.

Key terms

After completing this chapter, you should be familiar with the following terms:

- loss on disposal of non-current asset
- profit on disposal of non-current asset
- under-depreciation
- over-depreciation
- trade-in.





15.1 Methods of depreciation

Chapter 14 introduced the process of depreciation for non-current assets. This process is applied because although non-current assets provide an economic benefit for more than 12 months (through their contribution to revenue), most do not provide an economic benefit forever; they have a finite Useful life. This means that gradually, over their Useful life, their value is being consumed or incurred by the business.

The process of depreciation is applied as a mechanism for calculating depreciation expense, which is that part of the cost of a non-current asset that has been consumed, or incurred, in the current Period. As a result, depreciation expense upholds the Accrual basis assumption by comparing revenues earned against expenses incurred in the current Period to ensure profit is calculated accurately. It also ensures that the reports (the Income Statement and the Balance Sheet) include all information that is useful for decision-making, therefore upholding *Relevance*.

Chapter 14 introduced only one method of depreciation – the straight-line method. This chapter introduces an alternative – the reducing balance method. These methods do not differ in terms of how they are recorded or reported, but they do differ in terms of:

- their assumption about how assets contribute to revenue
- how they allocate depreciation expense over the life of the asset
- how they calculate depreciation expense.

Straight-line method

The straight-line method of depreciation assumes that the asset will *contribute evenly to revenue*, doing much the same job when it is old as when it is new. Typically, this would include assets with few moving parts such as office furniture or fixtures and fittings. The value (cost) of such an asset is therefore assumed to be *consumed evenly over the life of the asset*, and this must be reflected by the depreciation expense.

As a result, the straight-line method attempts to match the revenue-earning pattern of the asset by *allocating depreciation expense evenly over the life of the asset* and reporting the same amount of depreciation expense each year.

Reducing balance method

However, not all assets contribute to revenue evenly over their lives. An asset with moving parts (such as equipment, a photocopier or a vehicle) is likely to be more efficient and productive when it is new, and therefore *contribute more to revenue at the start of its Useful life* than at its end. The value (cost) of an asset that contributes more to revenue when it is new (and less as it ages) is therefore *consumed more at the start of its Useful life* than at its end.

As a consequence, the reducing balance method *allocates more depreciation expense at the start of the asset's life*. Under this method, as the asset ages, its contribution to revenue decreases and so too does the depreciation expense.

Using the reducing balance method ensures that the depreciation expense and the revenue the asset earns are 'matched' in each Period. Both are higher at the start but reduce over the life of the asset.



Review questions 15.1

- 1 Referring to one Accounting assumption, **explain** the purpose of depreciating a non-current asset.
- 2 **State** the assumption that underlies the straight-line method of depreciation in relation to how assets contribute to revenue.
- 3 **Explain** how the straight-line method of depreciation allocates depreciation expense over the life of the asset.
- 4 **State** the assumption that underlies the reducing balance method of depreciation in relation to how assets contribute to revenue.
- 5 **Identify** three non-current assets that should be depreciated using the reducing balance method of depreciation.
- 6 **Explain** how the reducing balance method of depreciation allocates depreciation expense over the life of the asset.



15.2 Calculating depreciation expense: reducing balance method

Under the straight-line method, depreciation expense is the same each year because it is calculated as a percentage of the **Historical cost** of the asset (which, as the original purchase price, does not change). By contrast, the reducing balance method calculates depreciation expense as a percentage of the **Carrying value**, and as the Carrying value decreases every year so too does the depreciation expense.

On 1 January 2030, Finch Fabrics purchased a cutting machine for **\$10 000** plus \$1 000 GST. The asset is expected to have a Useful life of five years and a Residual value of \$2 000 and is to be depreciated at 27.52% per annum using the reducing balance method. Balance day is 31 December 2030 (Memo 91).

Example



Reducing balance rate of depreciation

The first thing to note about the reducing balance method is that it always uses a rate (or %), but the first thing that may strike you about the *example* on the previous page is that the rate is not given as a simple figure, but rather as 27.52%! As a rule of thumb, the reducing balance rate is approximately 1.5 times the straight-line rate. However, the word *approximately* is important: it is not *exactly* 1.5 times.

Fortunately, the complex formula used to calculate the reducing balance rate is beyond the requirements of VCE Accounting, and if the rate is known (which in this course it will be!), calculating depreciation expense simply involves multiplying the **Carrying value** by the rate.

The formula for calculating depreciation expense under the reducing balance method is shown in Figure 15.1:

Figure 15.1 Formula: depreciation expense for reducing balance method

$$\begin{aligned}\text{Depreciation expense} &= \text{Depreciation rate} \times \text{Carrying value} \\ &= \$ \text{ for the year}\end{aligned}$$

Where:

Carrying value = **Historical cost** less **Accumulated depreciation**

Because the **Carrying value** decreases every Period, so too does the **depreciation expense** when calculated using the reducing balance method.

That is, the **depreciation expense** of each Period will increase the **Accumulated depreciation**, leading to a decrease in **Carrying value** and a subsequent decrease in **depreciation expense** in the *next* Period.

Depreciation expense for the year ended 31 December 2030

Using the reducing balance formula, the depreciation expense for the cutting machine for Finch Fabrics for the year ended 31 December 2030 would be calculated as shown in Figure 15.2:

Figure 15.2 Calculation: depreciation expense for year ended 31 December 2030

$$\begin{aligned}\text{Depreciation expense} &= \text{Depreciation rate} \times \text{Carrying value} \\ &= 27.52\% \times \$10\,000 \\ &= \$2\,752\end{aligned}$$



For the first year of the asset's life, its **Carrying value** will be the same as its **Historical cost** (that is, \$10 000), and **depreciation expense** will be \$2 752. This would be recorded in the General Journal using the same debits and credits as those used for the straight-line method, as shown in Figure 15.3:

Figure 15.3 General Journal: year ended 31 December 2030

General Journal			
Date	Details	Debit \$	Credit \$
Dec. 31	Depreciation of Cutting machine	2 752	
	Accumulated depreciation of Cutting machine		2 752
	Yearly depreciation on cutting machine – 27.52% reducing balance method (Memo 91)		

Study tip

To see that the General Journal entries to record depreciation are the same regardless of method, compare the accounts used in Figure 15.3 with those used in Figure 14.8.

As it is the first year of the asset's life, the **Accumulated depreciation** at the end of the year would also be \$2 752, and the asset would thus be reported in the Balance Sheet as shown in Figure 15.4:

Figure 15.4 Balance Sheet (extract): year ended 31 December 2030

FINCH FABRICS Balance Sheet (extract) as at 31 December 2030		
	\$	\$
Non-Current Assets		
Cutting machine	10 000	
Less Accumulated depreciation	2 752	7 248

Depreciation expense for the year ended 31 December 2031

For the *second year* of the asset's life (2031), its **Carrying value** would be reduced by the value of **Accumulated depreciation** from 2030. Using this new **Carrying value** (\$7 248), the **depreciation expense** for 2031 would be calculated as shown in Figure 15.5:

Figure 15.5 Calculation: depreciation expense for year ended 31 December 2031

$$\begin{aligned}
 \text{Depreciation expense} &= \text{Depreciation rate} \times \text{Carrying value} \\
 &= 27.52\% \times \$7\,248 \\
 &= \$1\,995
 \end{aligned}$$

Because of the **Accumulated depreciation** from 2030 (\$2 752), the **Carrying value** for 2031 has decreased (from \$10 000 to \$7 248), resulting in a decrease in **depreciation expense** (from \$2 752 to \$1 995). Thus, the reducing balance method allocates more depreciation expense at the start of the asset's life, and less as it ages.

This pattern will continue for the life of the asset, as shown in Figure 15.6:

Figure 15.6 Reducing balance depreciation over time *

	2030	2031	2032	2033	2034
Income Statement for the year:					
Depreciation of Cutting machine	2 752	1 995	1 446	1 048	759
Balance Sheet as at 31 December:					
Cutting machine	10 000	10 000	10 000	10 000	10 000
Less Accumulated depreciation	2 752	4 747	6 193	7 241	8 000
Carrying value	7 248	5 253	3 807	2 759	2 000

* Some figures adjusted for rounding purposes

Calculating depreciation for less than a year

Just like the straight-line method, the reducing balance method calculates depreciation for a year. Should the asset be under the control of the firm for less than a year, or the Period be less than a year, the amount would need to be adjusted. The safest way to do this is to divide the yearly depreciation expense by 12 (months), then multiply by the number of months within the Period for which the firm has had control of the asset.



Review questions 15.2

- 1 Explain** how the straight-line and reducing balance methods differ in their calculation of depreciation expense.
- 2 Show** the formula for calculating depreciation expense under the reducing balance method of depreciation.
- Referring to the formula, **explain** why the reducing balance method of depreciation allocates less depreciation expense over the life of the asset.



15.3 Comparing depreciation methods

Study tip

See Section 14.3 for a reminder of how to calculate depreciation for less than a year (but remember to use the reducing balance formula to calculate depreciation expense in the first place).

Although the method of calculation will change the *amount* of depreciation expense, many aspects remain the same regardless of which method is chosen.

These include:

- the General Journal entries required to record depreciation expense; that is
DR Depreciation of Non-current asset (E)
CR Accumulated depreciation of Non-current asset (–A)
- the reporting of depreciation expense in the Income Statement (under ‘Other expenses’) and Accumulated depreciation in the Balance Sheet (as a negative asset)
- the effect on the Accounting equation and Balance Sheet; that is:
 - an increase in Accumulated depreciation leading to a decrease in assets
 - an increase in expenses leading to a decrease in Net Profit and decrease in owner’s equity.

What *will* differ depending on the depreciation method is the amount of depreciation expense charged in each Period:

- Using the straight-line method, depreciation expense will be the *same each year*. This does not mean that the asset is not ageing, or that its productive capacity is not being consumed, just that it is being consumed, and its cost incurred, evenly over its life.
- Using the reducing balance method, depreciation expense will be *higher at the start and decrease as the asset ages*.

Effect over the life of the asset

If the fabric cutting machine (from the previous example) had been depreciated using the straight-line method, depreciation expense would be \$1 600 per year – a rate of 16% (of the **Historical cost**). This compares with a reducing balance method rate of 27.52% (of the **Carrying value**).

Figure 15.7 shows how the straight-line and reducing balance methods would generate differing amounts for depreciation expense and, as a result, different results in the Income Statement and Balance Sheet over the life of the asset:

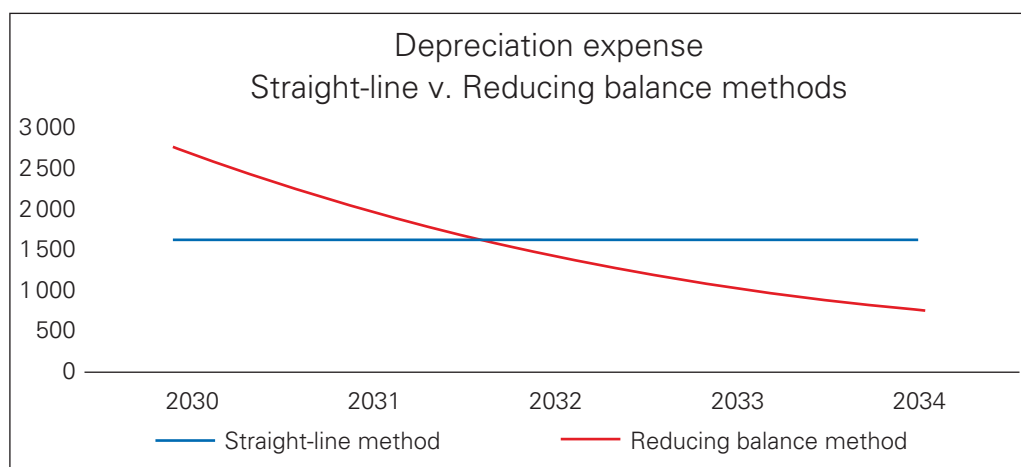
Figure 15.7 Comparison of straight-line and reducing balance methods

Year	Straight-line method (Historical cost × 16%)				Reducing balance method (Carrying value × 27.52%)			
	Historical cost	Depreciation expense	Accumulated depreciation	Carrying value	Historical cost	Depreciation expense	Accumulated depreciation	Carrying value
2030	10 000	1 600	1 600	8 400	10 000	2 752	2 752	7 248
2031	10 000	1 600	3 200	6 800	10 000	1 995	4 747	5 253
2032	10 000	1 600	4 800	5 200	10 000	1 446	6 193	3 807
2033	10 000	1 600	6 400	3 600	10 000	1 048	7 241	2 759
2034	10 000	1 600	8 000	2 000	10 000	759	8 000	2 000
		8 000	Total depreciation (over life)			8 000	Total depreciation (over life)	
		2 000	Carrying value (end of life)			2 000	Carrying value (end of life)	

The straight-line method allocates \$1 600 depreciation expense per year, for every year of the asset's Useful life. In comparison, the reducing balance method allocates *more* depreciation expense than the straight-line method in 2030 (\$2 752) and 2031 (\$1 995), but *less* in 2032 (\$1 446), 2033 (\$1 048) and 2034 (\$759).

This difference in depreciation expense can be represented graphically, as shown in Figure 15.8:

Figure 15.8 Depreciation expense: graphical comparison

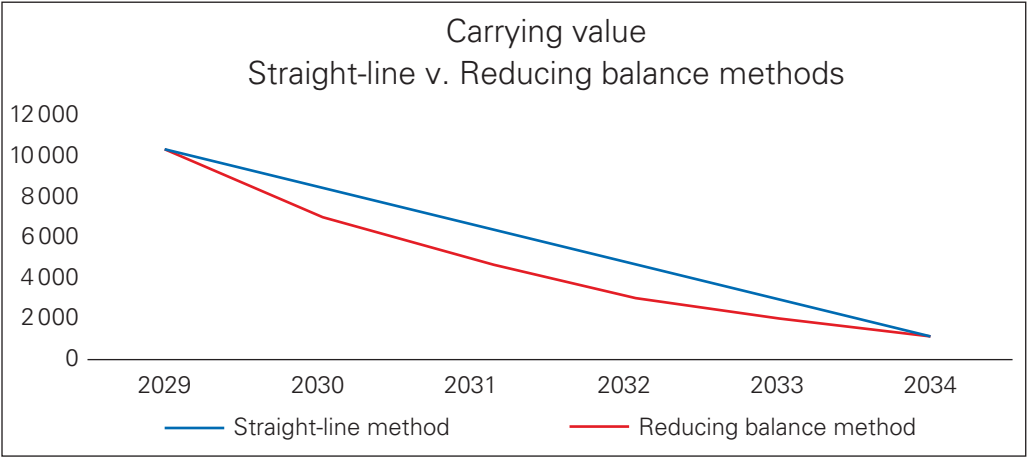


Video 15.1
Reducing balance v. straight-line depreciation graph

As a result of this difference in the depreciation expense, in the early years the reducing balance method will cause Net Profit to be lower than it would be using the straight-line method, but in later years Net Profit would be higher than if the straight-line method was used.

In terms of the Balance Sheet, the reducing balance method will mean the Carrying value of the asset decreases *faster* than using the straight-line method. This is shown in Figure 15.9:

Figure 15.9 Carrying value: graphical comparison



Although Figure 15.9 shows the difference in Carrying value at the end of each individual Period, it also shows that both methods end up at the same point: a Carrying value at the end of the asset’s life of \$2 000, which matches its estimated Residual value. This is because although each method gives a different depreciation expense in *each Period*, both methods will (if the rates have been calculated accurately) calculate the same total depreciation expense *over the life of the asset*. In this example, both methods result in a total Accumulated depreciation of \$8 000 and a final Carrying value of \$2 000.

Selecting a depreciation method

The key factor to consider in choosing a depreciation method is the *revenue-earning pattern* of the asset:

- If the asset contributes evenly to revenue and its cost is consumed evenly over its life, the straight-line method should be used as it allocates depreciation expense evenly over the life of the asset.
- If the asset contributes more to revenue and its cost is consumed more at the start of its life and less as it ages, the reducing balance method should be used as it allocates more depreciation expense at the start of the asset’s life and less as it ages.

It is the *asset* itself, and how it contributes to revenue, that determines which method of depreciation is appropriate. Therefore, a business may use the straight-line method for some assets and the reducing balance method for others.

While this choice exists, the Qualitative characteristic of *Comparability* demands that once a method is chosen, that method should be used from one Period to the next. This allows reports to be compared from one period to the next, allowing the users to identify similarities and differences in performance (rather than just differences caused by a change of depreciation method). Changing depreciation methods is possible, but the change must be clearly disclosed in the reports.

Indeed, the choice of depreciation method is subject to ethical considerations. Choosing a method so that the firm’s performance is presented in a particular (usually favourable) light is unethical, as is not impartial or objective. Further, such an approach

Ethical considerations

may compromise the ability of the reports to provide a *Faithful representation* of the firm's performance and position, as the information would be the result of bias.

In short, a depreciation method should be selected on the basis of one criteria alone: that the method reflects, as much as possible, the revenue-earning pattern of the asset and allocates depreciation expense accordingly to provide the best possible matching of revenues earned and expenses incurred, and therefore the most accurate calculation of profit under the Accrual basis assumption.



Review questions 15.3

- 1 **State** three ways in which the effect of depreciation is the same under both the straight-line and reducing balance methods.
- 2 Compared to the straight-line method, **explain** how the reducing balance method of depreciation will affect Net Profit during each Period.
- 3 **Explain** how the choice of method of depreciation affects Accumulated depreciation over the life of the asset.
- 4 **Explain** the main factor to be considered in selecting a method of depreciation.
- 5 Referring to one Qualitative characteristic, **explain** why depreciation methods should not be changed between periods.
- 6 Referring to one Qualitative characteristic, **explain** the ethical considerations in choosing a method of depreciation.

Ethical considerations



15.4 Disposal of a non-current asset

Unlike sales of inventory, which occur every day, sales of non-current assets by trading firms are relatively rare. Indeed, by their very definition non-current assets are expected to be of use to a business for more than 12 months, and many – like fixtures and fittings, vehicles and especially premises – would be expected to be in use for many years.

However, from time to time businesses will need to replace their non-current assets as they age and wear out, or as new and better assets become available for use. When this occurs, the accounts of the business must show that the asset – and any Accumulated depreciation that goes with it – has been disposed of and is no longer available for use.

Further, unless the asset has been 'scrapped' (dumped at the tip!), there is likely to be some small gain from the disposal, which could be:

- cash from the sale of the non-current asset or
- a trade-in towards the purchase of a new non-current asset.

In either case, recording the disposal of a non-current asset involves recording:

- 1 the disposal of the non-current asset (as measured by its **Carrying value**)
- 2 the revenue that has been earned from its disposal (the **Proceeds on disposal**)
- 3 the **Profit or loss on disposal** of the asset (measured by the difference between these two amounts).

Study tip

'Disposal' of an asset refers to both cash sale of an asset as well as trade-in.



Transferring the Carrying value (the 'cost price') of the asset

Assets are recorded in the General Ledger at their Historical cost – their original purchase price – so when an asset is disposed of, this value must be 'removed' from the asset account. At the same time, any Accumulated depreciation associated with the asset must also be removed.

Taken together, these entries will result in the assets of the business being reduced by the **Carrying value** of the asset that has been disposed of. Put another way, the value of the asset 'lost' is measured by its Carrying value.

Example

On 31 January 2030, Duke Industries sold some equipment for \$1 000 (plus GST) (Receipt 17). The equipment had originally been valued at \$12 000, but Accumulated depreciation amounted to \$9 000 when it was sold.

Because the equipment has been sold, it is no longer in the firm's possession or control, so it is removed from the accounts by **crediting** the **Equipment** account using its Historical cost of \$12 000. Simultaneously, the **Accumulated depreciation of Equipment** account is **debited** \$9 000 so that this amount is also removed.

Both amounts are transferred to a new account called **Disposal of Equipment**, which acts as a temporary account simply for the purpose of calculating any profit or loss on the disposal of the non-current asset. The Historical cost of the equipment sold is recorded via a **debit** entry of \$12 000, and the Accumulated depreciation on the asset sold is recorded as a **credit** entry of \$9 000.

The General Journal entries to transfer the Carrying value of the equipment are shown in Figure 15.10:

Figure 15.10 General Journal: transferring the Carrying value

General Journal			
Date	Details	Debit \$	Credit \$
Jan. 31	Disposal of Equipment	12 000	
	Equipment		12 000
	Accumulated depreciation of Equipment	9 000	
	Disposal of Equipment		9 000

Study tip

There is no narration recorded here because although this process is being explained in three steps, it is in fact one General Journal entry.

Figure 15.11 shows how the General Ledger accounts would appear after posting the General Journal:

Figure 15.11 General Ledger: transferring the Carrying value

General Ledger Equipment (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1	Balance	12 000	Jan. 31	Disposal of Equipment	12 000

Accumulated depreciation of Equipment (-A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 31	Disposal of Equipment	9 000	Jan. 1	Balance	9 000

Disposal of Equipment					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 31	Equipment	12 000	Jan. 31	Acc. dep. of Equipment	9 000

Study tip

Although this example refers to a sale of a non-current asset, the entries would be identical if the asset were traded in.

At this stage, both the Equipment and Accumulated depreciation of Equipment accounts have a zero balance as the asset has been sold, and the Disposal of Equipment account has a debit balance of \$3 000, representing the **Carrying value** of, and the expense incurred for, the equipment sold.

Recording the Proceeds on disposal (the 'selling price') of the asset

At the same time as the asset is removed from the accounts, the business will also receive some form of revenue from the buyer, with these **Proceeds on disposal** increasing assets (for a cash sale, via Bank, or for a trade-in, the new non-current asset) and owner's equity.

In the case of this cash sale, **Bank** will increase via a **debit** entry for the full amount received (\$1 100), with corresponding **credit** entries in the **GST Clearing** account (\$100) to show the increase in the GST liability (as this cash must be forwarded to the ATO), as well as the **Disposal of equipment** account (\$1 000) to show the revenue earned from the sale. This is shown in Figure 15.12:

Figure 15.12 General Journal: proceeds on cash sale

General Journal			
Date	Details	Debit \$	Credit \$
Jan. 31	Bank	1 100	
	Disposal of equipment		1 000
	GST Clearing		100

Study tip

These entries are *slightly* different if the asset is traded in – see Section 15.6.

The cash received as proceeds on the sale would be posted to the General Ledger as shown in Figure 15.13:

Figure 15.13 General Ledger: proceeds on cash sale

General Ledger Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1	Balance	40 000			
31	Disposal of equipment/ GST Clearing	1 100			

Disposal of Equipment					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 31	Equipment	12 000	Jan. 31	Acc. dep. of equipment	9 000
				Bank	1 000

The Disposal of Equipment account now shows the **Carrying value** of the asset that has been disposed of (on the top line) and the **Proceeds on disposal** (on the second line), and with this information the **Profit or loss on disposal** of the equipment can be calculated.

Reporting Proceeds on disposal

Any cash received from the sale of a non-current asset is reported in the Cash Flow Statement. Whilst the GST will be reported with all other GST received as a Cash inflow under Operating activities, the Proceeds on disposal will be reported as a Cash inflow under Investing activities, called **Cash received from sale of equipment** or **Proceeds from sale of equipment** (\$1 000) as it relates to the sale of a non-current asset.

Recording the Profit or loss on disposal

Although the Disposal of Non-current asset account shows both the **expense incurred** by the disposal (the **Carrying value** of the asset) and the **revenue earned** from the disposal (the **Proceeds on disposal**), only the net effect (the overall **Profit or loss on disposal**) will be reported in the Income Statement. Thus, the Disposal of Non-current asset account must be closed, and its balance transferred to a separate account called either 'Profit on Disposal of Non-current asset' or 'Loss on Disposal of Non-current asset'.

Loss on disposal of a non-current asset

Where the **Proceeds on sale** is **less** than the **Carrying value** of the asset, a **loss on disposal of non-current asset** has been earned.

Figure 15.14 shows that in this case a **Loss on disposal** has occurred as the **Proceeds on disposal** is less than the **Carrying value** of the equipment:

Figure 15.14 Calculation: profit (loss) on disposal of a non-current asset

	Proceeds from sale of equipment	\$1 000
less	Carrying value of equipment	3 000
	Loss on Disposal of Equipment	(2 000)

Study tip

Where it can be identified, it is possible to report the GST received under Investing activities, but this has been simplified for this course.

loss on disposal of non-current asset

an expense incurred when the proceeds from the disposal of a non-current asset are less than its Carrying value when disposed

This loss is also reflected in the Disposal of Equipment account (from Figure 15.13), which has a debit balance (of \$2 000) just like an expense account. This confirms that there has been a **Loss on Disposal of Equipment**.

The **Disposal of Equipment** account must therefore be **credited** by \$2 000 so that it closes and is set to zero, with a corresponding **debit** recorded in the **Loss on Disposal of Equipment** account to record the overall expense incurred on the disposal of the asset.

The General Journal entry to record the Loss on Disposal of Equipment is shown in Figure 15.15:

Figure 15.15 General Journal: loss on disposal of non-current asset

General Journal			
Date	Details	Debit \$	Credit \$
Jan. 31	Loss on Disposal of Equipment	2 000	
	Disposal of Equipment		2 000
	Disposal of equipment – cash sale at a loss (Rec. 17)		

As noted above, although the disposal has been shown here as three separate components, it is one transaction. All three components (the transfer of the **Carrying value**, the recording of the **Proceeds on disposal** and the transfer of the **Loss on disposal**) form one entry to record the one transaction. As a consequence, the narration is made only at the end of the General Journal entry.

Following the recording of this loss on disposal, the General Ledger accounts would appear as shown in Figure 15.16:

Figure 15.16 General Ledger: loss on disposal of non-current asset

General Ledger Disposal of Equipment					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 31	Equipment	12 000	Jan. 31	Acc. dep. of Equipment	9 000
				Bank	1 000
				Loss on Disposal of Equipment	2 000
		12 000			12 000

Loss on Disposal of Equipment (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 31	Disposal of Equipment	2 000			

The Disposal of Equipment account has been closed and now has a zero balance, and the **Loss on Disposal of Equipment** account shows the overall loss incurred on the sale (\$2 000), which will be closed to the Profit and Loss Summary account at the end of the period and reported in the Income Statement with 'Other expenses'.

Profit on disposal of a non-current asset

If the Disposal of Asset account has a credit balance, like a revenue account, it would represent a **profit on disposal of non-current asset** because the **Proceeds on disposal** would be **greater** than the **Carrying value**.

profit on disposal of non-current asset

a revenue earned when the proceeds from the disposal of a non-current asset are greater than its Carrying value when disposed

Example

As at 31 October 2030, the accounts of Mallacoota Wines showed the following:

General Ledger Disposal of Furniture					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Furniture	8 000	Oct. 31	Acc. dep. of Furniture	6 000
				Bank	2 300

This account currently has a credit balance of \$300, representing a Profit on Disposal of Furniture because the Proceeds from sale are greater than the Carrying value, as is shown in Figure 15.17:

Figure 15.17 Calculation: profit (loss) on disposal of a non-current asset

	Proceeds from sale of furniture	\$2 300
less	Carrying value of furniture	2 000
	Profit on Disposal of Furniture	300

The Disposal of Furniture account must therefore be debited \$300 so that it closes and is set to zero, with a corresponding credit recorded in the Profit on Disposal of Furniture account to record the overall revenue earned on the disposal of the asset.

The General Journal entry to record the Profit on Disposal of Furniture is shown in Figure 15.18:

Figure 15.18 General Journal: profit on disposal of non-current asset

General Journal			
Date	Details	Debit \$	Credit \$
Oct. 31	Disposal of Furniture	300	
	Profit on Disposal of Furniture		300
	Disposal of furniture – cash sale at a profit (Rec. 39)		



Following the recording of this profit on disposal, the General Ledger accounts would appear as shown in Figure 15.19:

Figure 15.19 General Ledger: profit on disposal of non-current asset

General Ledger Disposal of Furniture					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Furniture	8 000	Oct. 31	Acc. dep. of Furniture	6 000
	Profit on Disposal of Furniture	300		Bank	2 300
		8 300			8 300

Profit on Disposal of Furniture (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Oct. 31	Disposal of Furniture	300

Reporting Profit on Disposal

As a revenue account, **Profit on Disposal of Furniture** would be closed to the Profit and Loss Summary account at the end of the Period with other revenues, such as Sales, (Sales returns), Inventory gain and Discount revenue, and in the Income Statement it would be reported (with Discount revenue) as 'Other revenues'.



Review questions 15.4

- List** the three steps involved in recording the disposal of a non-current asset.
- State** one reason why the asset is measured by its Carrying value rather than its Historical cost when it is sold or traded in.
- Show** the General Journal entries necessary to record the cash sale of a non-current asset at a loss.
- Explain** how the proceeds from the cash sale of a non-current asset would be reported in the Cash Flow Statement.
- Define** the terms:
 - loss on disposal of a non-current asset
 - profit on disposal of a non-current asset.
- State** what is indicated if the Disposal of Non-current asset account has a:
 - debit balance
 - credit balance.
- Show** the General Journal entries necessary to close the Disposal of Non-current asset account if it has a credit balance.
- Explain** why Profit on Disposal of Non-current asset is reported under 'Other revenues' in the Income Statement.



15.5 Assessing profit or loss on disposal

under-depreciation

when insufficient depreciation expense has been allocated over the life of a non-current asset, resulting in an overstatement of the asset's Carrying value

Given that depreciation is an attempt to calculate the value of a non-current asset that has been incurred in each period of its life, the Carrying value of that asset is also an attempt to gauge the asset's value (to the business) at any point in time. (This is *not* its market value.) And because the **Proceeds on disposal** are based on the sale document (and therefore cannot be 'incorrect'), a profit or loss on the disposal of the asset indicates that this **Carrying value** (and the depreciation that lead to its Carrying value) was in some way inaccurate.

Loss on disposal of a non-current asset

A loss on the disposal of a non-current asset occurs when the **Proceeds on disposal** (its resale value) is **less** than its **Carrying value**. Put another way, a loss occurs when the Carrying value is too high or overstated, because the asset has been **under-depreciated**: not enough depreciation expense has been written off over the asset's life.

In terms of the calculation of depreciation expense, under-depreciation may be because the Residual value and/or Useful life were overstated, perhaps because the original estimates did not anticipate that the asset would be:

- **damaged**

This would automatically reduce its resale (Residual) value and could also decrease its Useful life below what was originally anticipated.

- **outdated or superseded by a newer, technologically superior model**

This would also reduce its resale value.

Thus, a loss on disposal occurs when the asset's **Carrying value** is overstated, which could be caused by under-depreciation because the Residual value and/or Useful life was overstated (perhaps because the asset was damaged, superseded by a newer model or not in demand).

Profit on disposal of a non-current asset

In contrast to a loss, a profit on the disposal of a non-current asset occurs when the **Proceeds on disposal** (its resale value) is **greater** than its **Carrying value**. Put another way, a profit occurs when the Carrying value is too low or understated, because the asset has been **over-depreciated**: too much depreciation expense has been written off over the asset's life.

In terms of the calculation of depreciation expense, over-depreciation may be because the Residual value and/or Useful life were understated, perhaps because the original estimates did not anticipate that the asset would be:

- **in good condition**

This would increase its resale (residual) value and could also increase its Useful life.

- **in high demand**

This may be because it is rare and would also increase its resale value.

Thus, a profit on disposal occurs when the asset's **Carrying value** is understated, which could be caused by over-depreciation because the Residual value and/or Useful life was understated (perhaps because the asset was in good condition or high demand).

over-depreciation

when excess depreciation expense has been allocated over the life of a non-current asset, resulting in an understatement of the asset's Carrying value

Study tip

The reasons for a profit are the opposite of the reasons for a loss: understand one set of reasons and simply reverse them for the other result.



Review questions 15.5

- 1 **Define** the term 'under-depreciation'.
- 2 **State** two causes of under-depreciation.
- 3 **State** two reasons why the Residual value may be overstated.
- 4 **Explain** how under-depreciation may lead to a loss on the disposal of a non-current asset.
- 5 **Define** the term 'over-depreciation'.
- 6 **State** two causes of over-depreciation.
- 7 **State** two reasons why the Residual value may be understated.
- 8 **Explain** how over-depreciation may lead to a profit on the disposal of a non-current asset.



15.6 Trade-in of a non-current asset

In some situations, a firm will not sell an asset for cash, but rather use the asset it is disposing as a **trade-in** on a newer model. This would mean that rather than receiving cash for the sale of the asset, the firm would receive a reduction in the amount payable for the purchase of a new non-current asset.

trade-in

proceeds on the disposal of a non-current asset in the form of a reduction in the amount payable for the purchase of a new non-current asset

On 30 April 2030, Lexi's Midnight Runners purchased a new delivery van worth **\$30 000** (plus **\$3 000** GST) from IQ Motors (EFT Trans. 2031). As part of the purchase, the firm **traded in** an old delivery van with a **Carrying value** of **\$1 200** (cost **\$26 000** less Accumulated depreciation **\$24 800**) for **\$700**.

Example

Carrying value

When traded in, the entries to record the disposal of the old delivery van at its **Carrying value** are the same as those used for a sale, with a **credit** to **Van**, a **debit** to **Accumulated depreciation of Van** to remove the asset, and corresponding entries in the **Disposal of Van** account (see Figure 15.20).

Proceeds on disposal

Indeed, even the **credit** to **Disposal of Van** to record the **Proceeds from disposal** is very similar. However, for a trade-in there is no GST to account for, and there is no debit to Bank to show the cash received from the sale. Instead, the **non-current asset** account itself is **debited** to recognise this is what the proceeds have been put towards – the purchase of the new asset.

(As there is no cash flow, the trade-in is not reported in the Cash Flow Statement at all.)

Profit (or loss) on disposal

The final step of recording the **Loss on disposal** is recorded in the same way as it was for a cash sale, with a **credit** to the **Disposal of Van** account to close this temporary account and a **debit** to the **Loss on Disposal of Van** account to show the expense incurred.

Figure 15.20 shows how the trade-in of the old van and purchase of the new van would be recorded in the General Journal:

Figure 15.20 General Journal: trade-in and cash purchase of a non-current asset

General Journal			
Date	Details	Debit \$	Credit \$
Apr. 30	Disposal of Van	26 000	
	Van		26 000
	Accumulated depreciation of Van	24 800	
	Disposal of Van		24 800
	Van	700	
	Disposal of Van		700
	Loss on Disposal of Van	500	
	Disposal of Van		500
	Van	29 300	
	GST Clearing	3 000	
	Bank		32 300
	Trade-in of old van for \$700 on cash purchase of new van for \$30 000 plus GST (EFT Trans. 2031)		

The cash paid for the purchase of the new van is not \$33 000 (\$30 000 plus GST) because \$700 has been deducted from this amount for the **trade-in** value. And while the entries to record the purchase of the new van might look odd because the GST paid (\$3 000) is not 10% of the single debit of \$29 300, the GST paid *is* 10% of the total debits of \$30 000 (\$700 plus \$29 300) in the Van account.

After the trade-in and purchase are posted to the General Ledger, and the Disposal of Van account has been closed, the accounts would appear as shown in Figure 15.21.



Figure 15.21 General Ledger: trade-in and cash purchase of a non-current asset

General Ledger Van (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Apr. 1	Balance	26 000	Apr. 30	Disposal of Van	26 000
30	Disposal of Van	700			
	Bank	29 300			
Accumulated depreciation of Van (–A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Apr. 30	Disposal of Van	24 800	Apr. 1	Balance	24 800
Disposal of Van					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Apr. 30	Van	26 000	Apr. 30	Acc. dep. of Van	24 800
				Van	700
				Loss on Disposal of Van	500
		26 000			26 000
Loss on Disposal of Van (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Apr. 30	Disposal of Van	500			
GST Clearing (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Apr. 30	Bank	3 000	Apr. 1	Balance	4 900
Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Apr. 1	Balance	42 000	Apr. 30	Van / GST Clearing	32 300

The accounts show that the old vehicle is gone, and the new vehicle (valued at **\$30 000**) is recorded in the Van account.

As always, the Disposal of Van account has been closed, the **\$500 loss** has been transferred to the Loss on Disposal of Van account and the Van account has a new balance of **\$30 000** representing the Historical cost of the new van that has just been purchased.



Review questions 15.6

- Show** the General Journal entries necessary to record a trade-in and cash purchase of a non-current asset.
- Explain** why only some of the entries to record a trade-in and cash purchase of a non-current asset are the same as those for a cash sale of a non-current asset.
- Explain** how a trade-in is reported in the:
 - Cash Flow Statement
 - Income Statement. (Be careful!)





15.7 Reporting profit or loss on disposal of a non-current asset

As we already know (from Section 15.4), only the overall Profit or Loss on Disposal of Non-current asset is reported in the Income Statement.

Loss on disposal of a non-current asset

As an expense, the Loss on Disposal of Non-current asset account must be closed to the Profit and Loss Summary account at the end of the Period along with all the other expenses such as Cost of Sales, Wages and Rent expense. (See Chapter 10 for closing revenue and expense accounts.)

In the Income Statement, Loss on Disposal of Non-current asset will be reported under Other Expenses, as shown in Figure 15.22:

Figure 15.22 Income Statement: loss on disposal of a non-current asset

LEXIS MIDNIGHT RUNNERS Income Statement for April 2030		
	\$	\$
Revenue		
Sales	61 300	
Less Sales returns	1 300	60 000
Less Cost of Goods Sold		
Cost of Sales	35 000	
Freight in	2 000	37 000
Gross Profit		23 000
Less Inventory loss	300	
Inventory write-down	100	400
Adjusted Gross Profit		22 600
Add Other revenue		
Discount revenue		800
		23 400
Less Other expenses		
Advertising	2 700	
Bad debts	600	
Discount expense	350	
Loss on Disposal of Van	500	
Rent expense	4 000	
Wages	14 050	22 200
Net Profit		1 200

Profit on disposal of a non-current asset

The opposite of a loss is true for a **Profit on Disposal of Non-current asset** account: it would be closed to the Profit and Loss Summary account with the other revenue accounts, such as Sales, (Sales returns), Inventory gain and Discount revenue, and reported in the Income Statement under Other revenue. This is shown in Figure 15.23:

Figure 15.23 Income Statement: profit on disposal of a non-current asset

MALLACOOTA WINES Income Statement for year ended 31 December 2030		
	\$	\$
Revenue		
Sales	145 900	
Less Sales returns	900	145 000
Less Cost of Goods Sold		
Cost of Sales	39 000	
Customs duty	2 000	41 000
Gross Profit		104 000
Less Inventory loss		1 000
Adjusted Gross Profit		103 000
Add Other revenue		
Discount revenue	500	
Profit on Disposal of Vehicle	300	800
		103 800
Less Other expenses		
Advertising	10 000	
Bad debts	1 500	
Discount expense	1 300	
Rent expense	16 000	
Wages	53 000	81 800
Net Profit		22 000

Note that the **Carrying value** of the non-current asset is **not** disclosed as a separate expense, and the **Proceeds on disposal** is **not** disclosed as a separate revenue: it is only the overall **Profit or loss on disposal** that is reported in the Income Statement.



Review questions 15.7

- 1 Explain** how a loss on disposal of a non-current asset would be reported in the Income Statement.
- 2 Explain** how a profit on disposal of a non-current asset would be reported in the Income Statement.



Where have we been?

- The reducing balance method of depreciation assumes that the asset contributes more to revenue at the start of its life and less as it ages, and it allocates more depreciation at the start of the asset's life and less as it ages.
- The reducing balance method calculates depreciation expense as a percentage of the asset's Carrying value.
- Over the life of the asset, the straight-line and reducing balance methods will allocate the same total depreciation expense.
- *Comparability* demands that depreciation methods are not changed from period to period, ensuring the reports can be compared.
- Recording the disposal of a non-current asset involves:
 - transferring the Carrying value of the asset
 - recording the Proceeds from the disposal
 - recording the Profit or loss on disposal.
- The cash received from the sale of a non-current asset is an Investing cash inflow, but the GST received is reported as an Operating cash inflow.
- A loss on disposal of a non-current asset occurs when the Carrying value of the asset is greater than the proceeds from its sale, because it has been under-depreciated.
- A profit on the disposal of a non-current asset occurs when the Carrying value of the asset is less than the proceeds from its sale, because it has been over-depreciated.
- Only the overall profit or loss on the disposal of a non-current asset is reported in the Income Statement, as Other revenue (for a profit) or Other expense (for a loss).



Exercises

Please note: asterisks indicate that an answer for that question is available in the Selected Answers section at the end of this book.



Exercise 15.1

Purchase of a non-current asset

On 30 April 2030, Neil Downe purchased a new computer for his business, Knibs and Pens. The document relating to the purchase was received on 30 April 2030 when the computer was delivered:



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CRASH COMPUTERS

ABN: 34 354 365 887

Wells Rd

Frankston VIC 3199

TAX INVOICE

ABN: 35 444 000 121

Customer: Knibs and Pens (ABN: 56 575 334 102)
Elizabeth St, Dandenong VIC 3175

Date	Details	Total
30 April 2030	Computer system and software	2 400
	Installation	250
	Subtotal	2 650
	GST	265
	Total invoice price	\$2 915
	Cash received – EFT payment 8196	2 915
	Balance owing	nil

Required

- Record** this transaction in the General Journal of Knibs and Pens.
- Referring to your answer to part **a**, **explain** your treatment of 'Installation'.
- Explain** the effect of this transaction on the Accounting equation of Knibs and Pens.
- Explain** why EFT payment 8196 would be insufficient to verify the GST paid on 30 April 2030.
- Referring to one Accounting assumption, **explain** why the entire cost of the computer should **not** be reported as an expense for April 2030.

**Exercise 15.2****Purchase of a non-current asset**

On 1 April 2030, Matt's Mowers purchased a new photocopier. The document relating to the purchase is shown below:



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Phil's Photocopiers
Main St
Mornington VIC 3931

Receipt #61
Tax invoice
ABN: 35 444 000 121

Customer: Matt's Mowers (ABN: 65 555 760 012)
Ferntree Gully VIC 3156

Date	Details	Total
1/4/30	Photocopier T – 1000	21 000
	Fitting of card-identification system	1 500
	Technical assistance (12-month period)	1 200
	Subtotal	23 700
	GST	2 370
	Total invoice price	\$26 070
	Amount paid in full – thank you	

Required

- Define** the term 'cost' as it applies to non-current assets.
- Record** this transaction in the General Journal of Matt's Mowers. A narration is **not** required.
- Referring to your answer to part **b**, **explain** your treatment of the cost of the technical assistance.
- Show** how the cost of technical assistance would be reported in the Balance Sheet of Matt's Mowers as at 30 April 2030.

**Exercise 15.3****Depreciation methods**

On 30 September 2030, Kristine's Kites purchased new shelving for \$12 000 and a new sewing machine for \$500 from Trojan Products (EFT Trans. 3009). GST charged on the purchase amounted to \$1 250. Kristine has not yet selected a depreciation method.



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*Required*

- Record** EFT Transaction 3009 in the General Journal of Kristine's Kites.
- Referring to one Accounting assumption, **explain** why it is necessary to depreciate non-current assets.
- Explain** why the straight-line method should be used to depreciate the shelving.
- Explain** why the reducing balance method should be used to depreciate the sewing machine.
- Explain** why the shelving and sewing machine would still need to be depreciated separately even if the same depreciation method was used.



**Exercise 15.4****Reducing balance depreciation**

On 1 January 2030, Benanee Rubber purchased a new delivery van for \$32 000 (plus GST). The van is to be depreciated at 20% per annum using the reducing balance method (Memo 12).

Required

- State** the assumption that underlies the reducing balance method of depreciation in relation to how assets contribute to revenue.
- Calculate** Depreciation of Van for the year ended 31 December 2030.
- Record** Depreciation of Van for the year ended 31 December 2030 in the General Journal of Benanee Rubber.
- Show** how the van would appear in the Balance Sheet of Benanee Rubber as at 31 December 2030.
- Calculate** Depreciation of Van for the year ended 31 December 2031.



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**Exercise 15.5****Reducing balance depreciation**

As at 30 June 2029, the Balance Sheet of Heavenly Designs showed the following:

	\$	\$
Non-current Assets		
Computers	10 000	
Less Accumulated depreciation	1 800	8 200
Shop fittings	40 000	
Less Accumulated depreciation	13 104	26 896

Both types of asset are depreciated at 18% per annum using the reducing balance method.

Required

- Calculate** Depreciation of Computers for the year ended 30 June 2030.
- Record** Depreciation of Computers for the year ended 30 June 2030 in the General Journal of Heavenly Designs. A narration is **not** required.
- Show** how the computers would be reported in the Balance Sheet of Heavenly Designs as at 30 June 2030.
- Explain** one reason why the owner should change the method of depreciation used for the shop fittings.
- Referring to one Qualitative characteristic, **explain** one reason why the owner should **not** change the method of depreciation used for the shop fittings.
- Given that they were purchased on 1 July, **calculate** the year in which the shop fittings were purchased.



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**Exercise 15.6****Comparing depreciation methods**

On 1 January 2030, Babyland purchased shop equipment for \$13 200 (including GST). The owner argues that the only way to uphold the Qualitative characteristic of *Comparability* is to depreciate the shop equipment at 10% per annum using the straight-line method. The Accountant has argued that the shop equipment should be depreciated at 15% using the reducing balance method.

Required

- Suggest** one reason why the owner might (incorrectly) argue that *Comparability* requires the use of the straight-line method of depreciation.
- Referring to your answer to part **a**, **state** one reason why the owner is incorrect.
- Identify** one extra piece of information you would require before agreeing with the Accountant. **Justify** your answer.
- Calculate** Depreciation of Shop equipment for the year ended 31 December 2030 using the straight-line method.
- Calculate** Depreciation of Shop equipment for the year ended 31 December 2030 using the reducing balance method.
- Explain** how the choice of depreciation method will affect Net Profit for the year ended 31 December 2030.
- Calculate** depreciation expense for each year from 2030 to 2034 under both the straight-line and reducing balance methods to **model** how Net Profit is affected by the choice of depreciation method over the life of the asset.



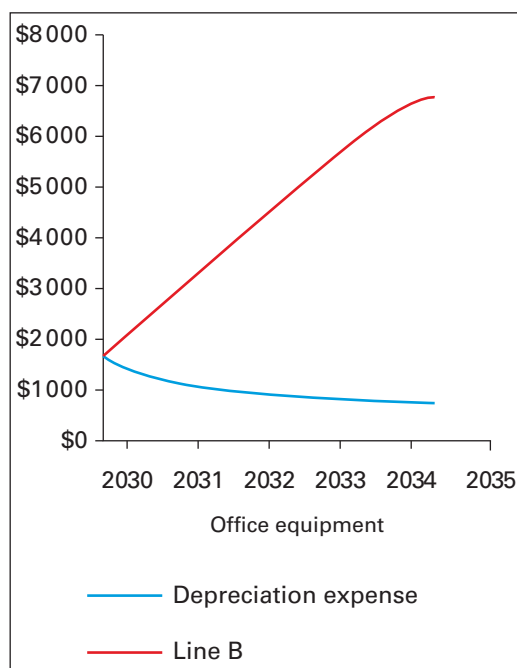
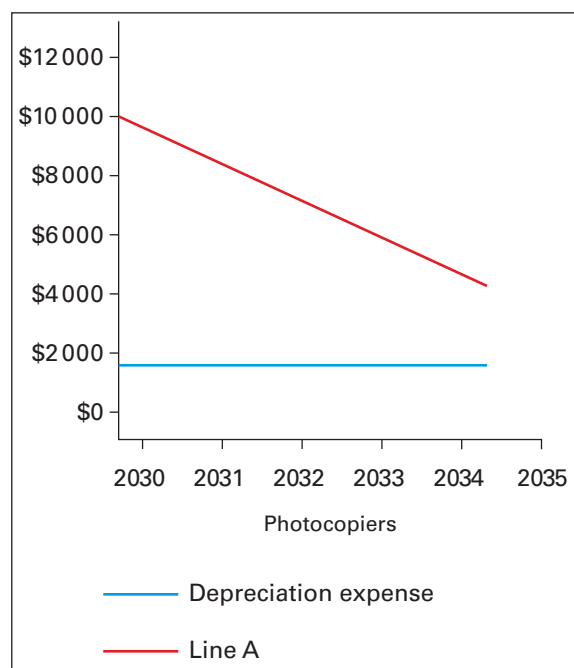
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**Exercise 15.7****Graphing depreciation**

Justinian Printing has provided the following graphs relating to depreciation of its non-current assets:



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Required

- Identify** the depreciation method used for the:
 - photocopiers
 - office equipment**Justify** your answers.
- Identify** the lines labelled 'Line A' and 'Line B'. **Justify** your answers.
- Identify** the Historical cost of the photocopiers.
- Discuss** whether the owner should change the method used to calculate Depreciation of Photocopiers.
- Explain** the effect on the Carrying value of the office equipment at the end of its Useful life if the owner had used the other depreciation method.

**Exercise 15.8****Cash sale of a non-current asset**

On 1 August 2030, Party Pots sold a van for \$3 000 cash (plus GST) (Receipt 31). The van had been purchased for \$24 000 (plus GST) and already depreciated by \$19 000 at the time of sale.

Required

- Record** Receipt 31 in the General Journal of Party Pots.
- Show** how the Van, Accumulated depreciation of Van, Disposal of Van and Profit or Loss on Disposal of Van accounts would appear after the General Journal was posted to the General Ledger of Party Pots.
- Explain** the effect of Receipt 31 on the Accounting equation of Party Pots.
- Explain** how the cash received from the sale would be reported in the Cash Flow Statement of Party Pots for August 2030.



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**Exercise 15.9****Cash sale of a non-current asset**

As at 31 December 2029, the Balance Sheet of Triffic Toys showed the following:

TRIFFIC TOYS Balance Sheet as at 31 December 2029		
	\$	\$
Non-Current Assets		
Fittings	36 000	
Less Accumulated depreciation	32 800	3 200

The fittings are depreciated using the straight-line method at 10% per annum. On 31 March 2030, the fittings were sold for \$2 970 (including GST) (Receipt 96).

Required

- Calculate** the Carrying value of the fittings as at 31 March 2030.
- Record** Receipt 96 in the General Journal of Triffic Toys.
- Show** how the Fittings, Accumulated depreciation of Fittings, Disposal of Fittings and Profit or Loss on Disposal of Fittings accounts would appear after the sale was posted to the General Ledger of Triffic Toys.
- Suggest** two reasons for the profit or loss on the disposal of the fittings.



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- e. **Show** how the profit or loss on the disposal of the fittings would be reported in the Income Statement of Triffic Toys for March 2030.
- f. **Calculate** Accumulated depreciation of Fittings to **model** the effect on profit or loss on Disposal of Fittings if they were sold:
 - for \$2 000 on 30 April 2030
 - for \$1 200 on 30 June 2030.



Exercise 15.10
Cash sale of a non-current asset

An extract from the General Ledger of Vicki’s Vinyls as at 31 October 2030 showed the following:

Disposal of Furniture					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 16	Furniture	8 000	Oct. 16	Acc. dep. of Furniture	5 000
				Bank	1 900

The sale of furniture was verified by Receipt 33.

Required

- a. **Explain** how the \$1 900 (plus GST) proceeds from the disposal of furniture would be reported in the Cash Flow Statement of Vicki’s Vinyls for October 2030.
- b. **Calculate** the profit or loss on Disposal of Furniture.
- c. **Explain** one reason for the profit or loss on Disposal of Furniture.
- d. **Show** how the Profit or Loss on Disposal of Furniture would be reported in the Income Statement of Vicki’s Vinyls for October 2030.
- e. **Show** how the Disposal of Furniture would have been recorded in the General Journal of Vicki’s Vinyls.



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Exercise 15.11
Trade-in of a non-current asset

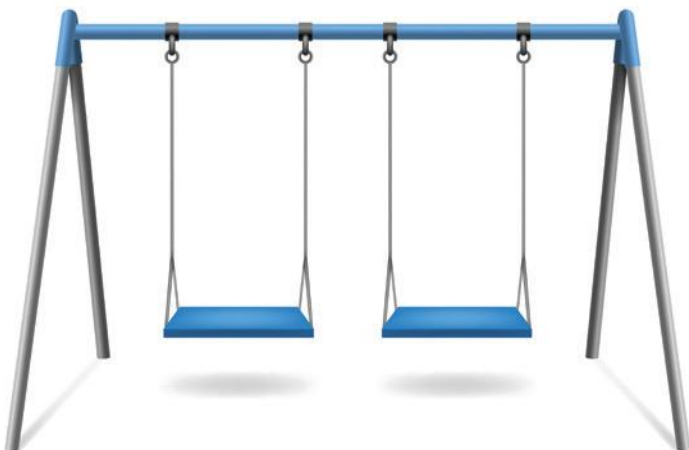
On 1 May 2030, a van purchased for \$30 000 (plus GST) by Swing Seats and already depreciated by \$20 000 was traded in for \$7 000 on a new van, bought for \$40 000 (plus GST) from Dodge Motors (EFT Trans. 2119).

Required

- a. **Define** the term ‘trade-in’.
- b. **Record** EFT Transfer 2119 in the General Journal of Swing Seats.
- c. **Show** how the Van, Accumulated depreciation of Van, Disposal of Van, Profit or Loss on Disposal of Van and Bank accounts would appear after the disposal was posted to the General Ledger of Swing Seats.
- d. **Define** the term ‘under-depreciation’.
- e. **State** two causes of under-depreciation.



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Exercise 15.12

Trade-in of a non-current asset

Quilts Inc. recently traded in its cash register and purchased a much newer version. The old cash register was purchased for \$4 400 (including GST) but had been depreciated by \$3 100 at the time of trade-in. The tax invoice for the transaction is shown below:



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Cash Controllers
ABN: 45 765 300 118
Moore St, Moe VIC 3825

Terms: 10/7. n/60
Tax invoice

Charge to: Quilts Inc. (ABN: 52 590 436 466)
Keilor Rd, Essendon VIC 3040

Date	Details	Qty	Unit price	Total
1 June 30	Electronic cash register	1	6000	6000
	GST			600
	Invoice price			6600
less	Trade In			500
	Cash paid (EFT payment 113)			6100
	Balance owing			nil

Required

- Record** EFT payment 113 in the General Journal of Quilts Inc.
- Show** how the Cash register, Disposal of Cash register and Bank accounts would appear after the disposal was posted to the General Ledger of Quilts Inc.
- Explain** how the value of the trade-in should be reported in the Income Statement for Quilts Inc. for June 2030.
- Explain** how the payment to Cash Controllers on 1 June 2030 would be reported in the Cash Flow Statement of Quilts Inc. for June 2030.



**Exercise 15.13****Disposal of a non-current asset and financial reports**

Kyabram Kites has provided the following Pre-adjustment Trial Balance as at 30 June 2030:



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KYABRAM KITES Pre-adjustment Trial Balance as at 30 June 2030		
Account	Debit \$	Credit \$
Accounts Payable		8 600
Accounts Receivable	14 000	
Accumulated depreciation of Fittings		24 000
Advertising	1 000	
Allowance for doubtful debts		1 250
Bank		390
Capital – Darling		34 720
Cost of sales	14 820	
Discount expense	280	
Discount revenue		130
Drawings	3 200	
Fittings	60 000	
GST Clearing		1 060
Inventory	26 670	
Inventory write-down	230	
Loan – Northern Bank (repayable \$500 per month)		24 000
Prepaid rent expense	1 800	
Sales		33 400
Sales returns	300	
Wages	5 250	
Totals	127 550	127 550

Additional information:

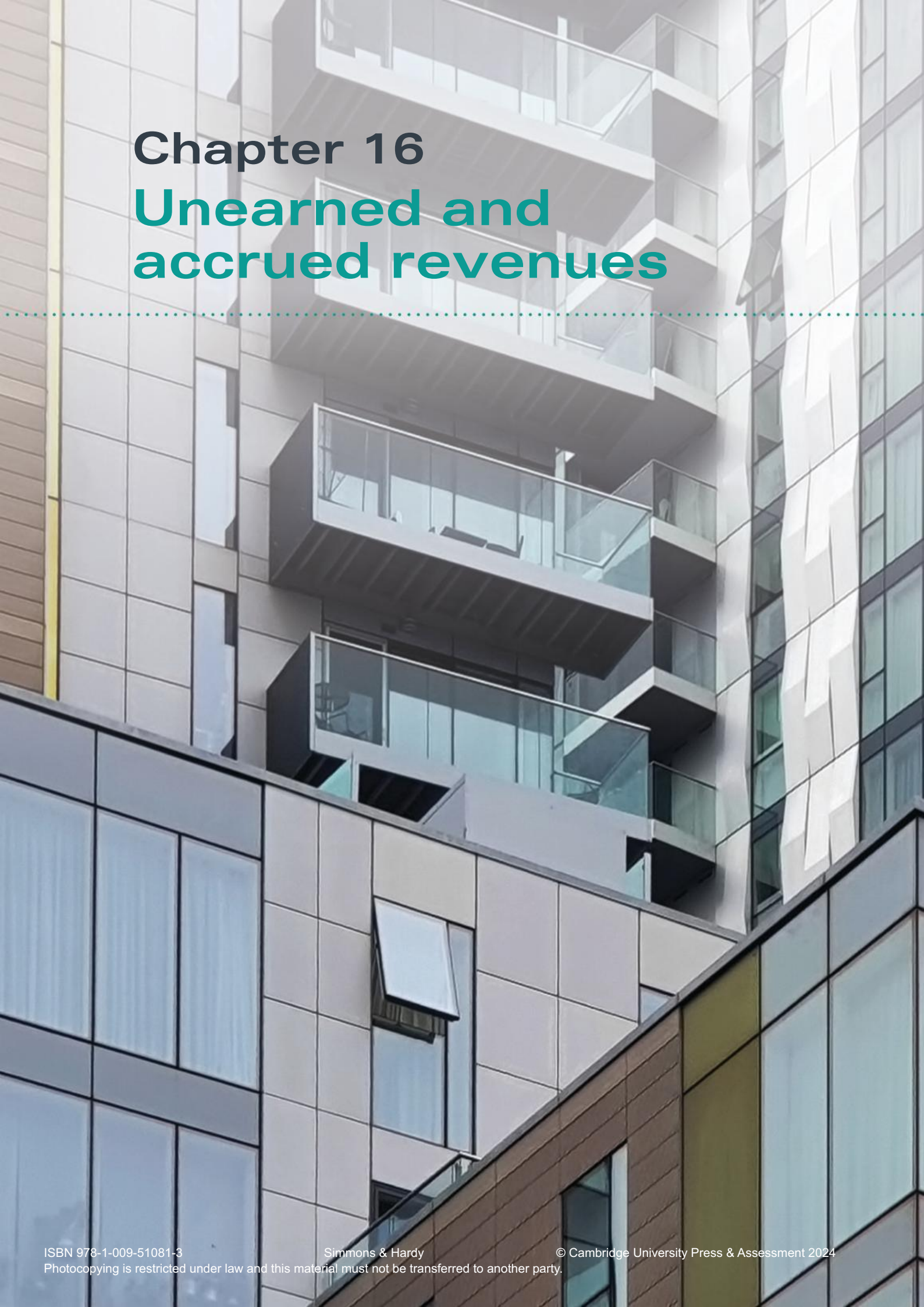
- Fittings are depreciated at 10% per annum using the reducing balance method.
- On 30 June 2030, some fittings were traded in for \$1 200 on new shop fittings from Fits Well, which cost \$9 000 (plus \$900 GST). The old fittings had been purchased for \$5 000 but had a Carrying value of \$2 000.
- A physical inventory count on 30 June 2030 showed an inventory loss of \$170.
- As at 30 June 2030, \$140 Interest expense was accrued, and Prepaid rent expense was \$1 200. Bad debts expense was \$450.
- Reports are prepared monthly.
- The owner has suggested switching to the straight-line method of depreciation in an attempt to make the firm look more profitable.

Required

- a. **Record** the additional information in the General Journal of Kyabram Kites. Narrations are **not** required.
- *b. **Prepare** a Post-adjustment Trial Balance for Kyabram Kites as at 30 June 2030.
- c. **Show** the General Journal entries necessary to close the expense accounts. A narration is **not** required.
- *d. **Prepare** an Income Statement for Kyabram Kites for June 2030.
- e. **Suggest** two actions Kyabram Kites could take to improve Adjusted Gross Profit without changing its mark-up.
- f. **Model** the effect on Net Profit for June 2030 if Kyabram Kites had calculated Depreciation of Fittings at:
 - 10% using the straight-line method
 - 7% using the straight-line method.
- g. Referring to your answer to part f, **explain** why the owner's suggestion will **not** make the firm look more profitable.
- h. **Explain** why the owner's suggested course of action may be said to be unethical.
- *i. **Prepare** a classified Balance Sheet for Kyabram Kites as at 30 June 2030.

Ethical considerations



A low-angle photograph of a modern building facade. The building features a mix of light-colored rectangular panels and large glass windows. Several balconies with glass railings are visible, some of which have outdoor furniture. The sky is not visible, as the building fills most of the frame.

Chapter 16

Unearned and accrued revenues

Learning intentions

After completing this chapter, you should be able to:

- **explain** how the Period and Accrual basis assumptions and the Qualitative characteristic of Relevance affect the calculation of profit
- **identify** and **record** unearned revenue in the General Journal and General Ledger
- **identify** and **record** accrued revenue in the General Journal and General Ledger
- **identify** and **record** the receipt of accrued revenue in a subsequent period
- **distinguish** between accrued revenue and Accounts Receivable
- **explain** the effect of balance day adjustments for unearned and accrued revenue on the Accounting equation
- **report** unearned and accrued revenues in the Balance Sheet
- **discuss** ethical considerations in business decision-making.

Key terms

After completing this chapter, you should be familiar with the following terms:

- unearned revenue
- accrued revenue
- unearned sales revenue.



16.1 The need for balance day adjustments

Chapter 12 pointed out that balance day adjustments are made to ensure that revenue accounts show revenues earned and expense accounts show expenses incurred in the current Period so an accurate profit can be calculated. Thus, under the Accrual basis assumption, profit is calculated by matching **revenue earned** against **expenses incurred** in the current Period.

Types of balance day adjustments

So far we have covered balance day adjustments that ensure that **expense** accounts show the amounts **incurred** including:

- Inventory losses (Chapter 8)
- Bad debts expense (Chapter 12)
- Prepaid expenses and Accrued expenses (Chapter 13)
- Depreciation expense (Chapters 14 and 15).

The only revenue we have covered to date is inventory gain, so this chapter addresses two other balance day adjustments to ensure that **revenue** accounts show the amounts **earned**:

- unearned revenues
- accrued revenues.

Defining 'revenue'

It is worth remembering that revenue is defined as an increase in assets or a reduction in liabilities that leads to an increase in owner's equity. The definition does not require that cash be received for revenue to be recognised; the receipt of cash may or may not be involved. For example, credit sales increase Accounts Receivable rather than cash; inventory gain increases Inventory; and discount revenue actually decreases Accounts Payable. Further, many transactions are not revenues even when cash is received, such as receipts from Accounts Receivable, loans and capital contributions.

In most cases, revenue is recognised as being earned at the point of sale as this is when the economic benefit is received and can be measured reliably. This is the key to recognising revenue as earned: some type of *economic benefit* has been received (either by assets increasing or liabilities decreasing), and owner's equity has increased as a consequence, but not as a result of contributions by the owner.



Review questions 16.1

- 1 **Explain** the purpose of making balance day adjustments.
- 2 **Define** the term 'revenue'.
- 3 **Identify** three non-cash revenue items.



16.2 Unearned revenues

Although perhaps less frequent than a prepaid expense, it is possible for a firm to receive cash from the customer *prior* to supplying the goods. This would be the case if a firm accepted subscriptions (such as to a magazine), rented out extra space in its warehouse, offered lay-by facilities or accepted cash as a deposit to secure a sale. (Section 16.3 covers the last possibility.)

In cases such as these, the firm would have received the cash, but because it has not supplied anything to the customer, it has not *earned* any revenue. In fact, it *owes* the goods or service to the customer, and this present obligation to transfer an economic resource (the goods/service that the customer has already paid for) means that the business has a liability called **unearned revenue**.

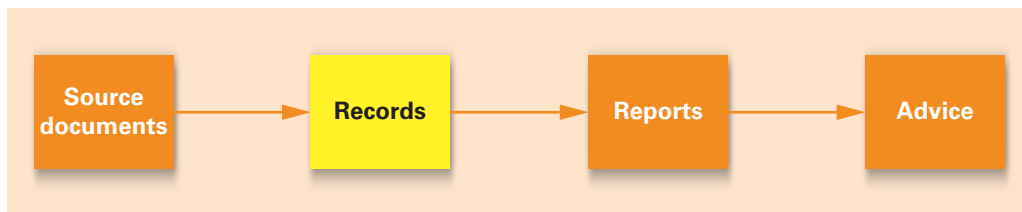
unearned revenue

a current liability that arises when cash is received in advance for revenue that is yet to be earned

The Bag Emporium owns a warehouse and rents out some office space to a small courier business. On 1 August 2030, the Bag Emporium received \$4 200 plus \$420 GST for use of the office space for the next six months (Receipt 541). Reports are prepared monthly (Memo 412).

Example

Cash receipt of unearned revenue



When cash is received in advance (or 'prepaid' by the customer), it must be recorded as a current liability in the General Journal and General Ledger accounts.

The \$4 620 cash received from the courier company will be recorded as a **debit** in the **Bank** account. Of this amount, \$420 is GST that is now owed to the ATO, and this will be recorded as a **credit** to the **GST Clearing** account.



What of the remaining \$4 200?

The key here is that this amount covers the **next six months**, meaning it is **received in advance** of providing the use of the office space. Therefore, on 1 August 2030, when the cash is received, none of the office space has been provided to the courier business, therefore no revenue has been earned. In fact, The Bag Emporium owes to the courier company use of the office space (for six months), so this cash receipt actually creates a liability called **Unearned rent revenue**.

Figure 16.1 shows how this cash receipt would be recorded in the General Journal:

Figure 16.1 General Journal: cash receipt of unearned revenue

General Journal			
Date	Details	Debit \$	Credit \$
Aug. 1	Bank	4 620	
	Unearned rent revenue		4 200
	GST Clearing		420
	Cash received for next six months' rent of office space (Rec. 541)		

Figure 16.2 shows how the accounts would appear after posting the General Journal to the General Ledger:

Figure 16.2 General Ledger: cash receipt of unearned revenue

General Ledger					
Bank					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 1	Balance	15 000			
	Unearned rent revenue / GST Clearing	4 620			
Unearned rent revenue (CL)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Aug. 1	Bank	4 200
GST Clearing (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Aug. 1	Balance	3 500
				Bank	420

The cross-reference in the Bank account identifies both **Unearned rent revenue** and **GST Clearing**, as both are sources of the cash received.

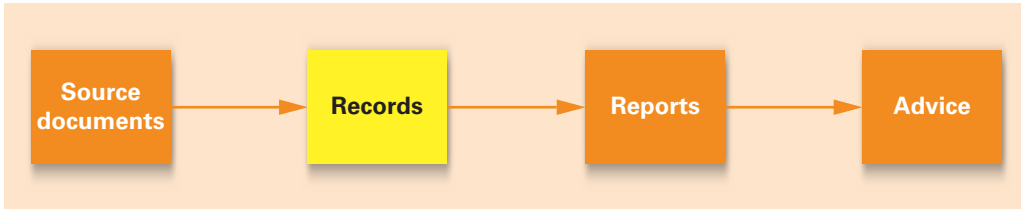
Effect on the Accounting equation

As a result of the **receipt of cash**, the effect on the Accounting equation would be:

	Increase/Decrease/No effect	Amount \$
Assets	Increase (Bank)	4 620
Liabilities	Increase (Unearned rent revenue \$4 200; GST Clearing \$420)	4 620
Owner's equity	No effect	

This entry increases **Bank** and increases two liabilities: **Unearned rent revenue** and **GST Clearing**. At this point, there is no revenue recorded in the General Ledger; no rent has been provided, so no rent revenue has been earned.

Balance day adjustment: revenue earned



Unearned revenues are recorded as current liabilities because when the cash is received, none of the amount has been **earned**; there is still a present obligation to provide the good or service. If by balance day the good/service has been provided to the customer, the business will have fulfilled its obligation and therefore met the liability, so the revenue will have been earned. This is a good example of a revenue in the form of a decrease in a liability (Unearned revenue) rather than the usual increase in assets created by a cash or credit sale.

It is therefore necessary to adjust the ledger accounts so that:

- the **revenue** account shows the amount **earned** in the current Period
- the **Unearned revenue** account only shows the amount still owing to customers or to be earned in future Periods.

Calculating the revenue earned

In this example, **\$4200** was **received** on 1 August 2030, but this related to the next **six months**, so the monthly **rent revenue earned** can then be calculated as shown in Figure 16.3:

Figure 16.3 Calculation: revenue earned

$$\begin{aligned}
 \text{Rent revenue earned} &= \frac{\$4200 \text{ Unearned rent revenue}}{6 \text{ months}} \\
 &= \$700 \text{ per month}
 \end{aligned}$$

Study tip

Calculate the amount **earned**: this is the amount to use in the balance day adjustment.

Recording the revenue earned

The revenue in this example is only earned as the rent is provided each month, so by balance day on 31 August 2030 one month's worth of rent (**\$700**) would be **earned**, and this must be **credited** to the **Rent revenue** account. At the same time, the amount owed to the customer will decrease, so **Unearned rent revenue** must be **debited** to recognise the reduction in this liability.



Figure 16.4 shows the General Journal entries to record this balance day adjustment:

Figure 16.4 General Journal: BDA – revenue earned

General Journal			
Date	Details	Debit \$	Credit \$
Aug. 31	Unearned rent revenue	700	
	Rent revenue		700
	Balance day adjustment to record one month's rent revenue earned (Memo 412)		

After posting the General Journal, the General Ledger would appear as shown in Figure 16.5:

Figure 16.5 General Ledger: BDA – revenue earned

General Ledger					
Unearned rent revenue (CL)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 31	Rent revenue	700	Aug. 1	Bank	4 200

Rent revenue (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Aug. 31	Unearned rent revenue	700

Study tip

When adjusting unearned revenue, 'take away' the amount earned (from the current liability).

Note that the Bank and GST Clearing accounts are unaffected, as on balance day no cash has been exchanged, and no GST has been involved: the balance day adjustment simply increases the revenue (*Rent revenue*) and decreases the liability (*Unearned rent revenue*).

Effect on the Accounting equation

As a result of the adjustment for the rent revenue earned:

	Increase/Decrease/No effect	Amount \$
Assets	No effect	
Liabilities	Decrease (<i>Unearned rent revenue</i>)	700
Owner's equity	Increase Revenue (<i>increases Net Profit</i>)	700

As a consequence of the balance day adjustment, a liability becomes a revenue, decreasing liabilities and increasing owner's equity. Assets do not change.

Closing the ledger

Only after the ledger accounts have been adjusted – so that the *revenue* account shows the amount earned in the current Period and the liability account shows the amount yet to be earned – are they ready to be closed, or balanced.

Figure 16.6 shows how the Unearned rent revenue account would appear after it had been balanced, and the Rent revenue account after it had been closed to the Profit and Loss Summary account:

Figure 16.6 General Ledger: after closing and balancing

General Ledger					
Unearned rent revenue (CL)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 31	Rent revenue	700	Aug. 1	Bank	4 200
	Balance	3 500			
		4 200			4 200
			Sept. 1	Balance	3 500

Rent revenue (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 31	Profit and Loss Summary	700	Aug. 31	Unearned rent revenue	700
		700			700

Study tip

Remember that all revenue accounts are closed in one General Journal entry, with each revenue account debited, and one credit to the Profit and Loss Summary account.

The balance of the Rent revenue is reset to zero in readiness for the next Period, but the balance of \$3 500 left in the Unearned rent revenue account (\$4 200 received less \$700 earned) represents the amount still owing, or yet to be earned, or the amount that will be earned in future Periods. This is the new current liability balance.

Had the balance day adjustment not been recorded, the current liability Unearned rent revenue would have been overstated by \$700, and the Rent revenue understated by \$700, meaning Net Profit and owner's equity would be understated by \$700.

By contrast, as a consequence of the balance day adjustment these items are reported accurately, meaning Net Profit and the Balance Sheet are also accurate and include all the Relevant information which is capable of making a difference to decision-making.



Review questions 16.2

- Define** the term 'unearned revenue'.
- Explain** why unearned revenue is classified as a current liability.
- Explain** the effect on the Accounting equation of cash received as unearned revenue.
- Show** the General Journal entries necessary to record the balance day adjustment when unearned revenue is earned.
- Explain** the effect on the Accounting equation of the balance day adjustment when unearned revenue has been earned.
- Explain** how a balance day adjustment for unearned revenue that has now been earned ensures *Relevance* in the reports.



16.3 Unearned sales revenue: deposits

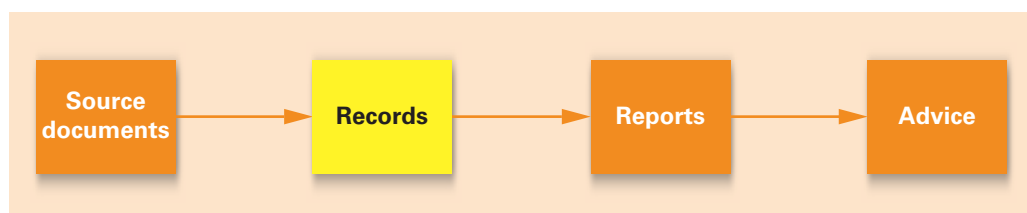
Section 16.2 described the recording of unearned revenue, where cash is received in advance for revenue that is yet to be earned. Once the revenue is earned, entries are necessary to record the revenue earned and the reduction in the liability owed to the customer.

This applies to all unearned revenues, but unearned sales revenue is a particular type of unearned revenue, because it includes the provision of inventory. Unearned sales might occur when a new product (such as a phone or electronic device) is released, and customers pay in advance to ensure they are among the first to own the item. It might also occur when a customer pays a deposit on an item of inventory in order to secure the sale. When this inventory is provided, entries are required to record the revenue earned and the reduction of the liability, as well as the inventory leaving the business.

Example

Wollard Prints sells a signed and framed poster of the Australian soccer team for **\$1 200** (plus **\$120 GST**). On 14 September 2030, Wollard Prints received a deposit of **\$500** from B. Hogan for the sale of one poster (**Receipt 135**). On 23 October 2030, **Hogan collected the poster**, paying the balance in cash (**Receipt 139**). The poster has a cost price of \$650.

Cash deposit



Recording the deposit

In common with any cash received for unearned revenue, the deposit received on 14 September 2030 increases cash in the **Bank** account via a **debit** entry, and creates a liability (in this case, **unearned sales revenue**) via a **credit** entry.

However, because this is simply a deposit to guarantee the sale – and not a receipt of the full amount of cash for the sale – the transaction does not identify any GST received. As a result, GST need not be recorded in the General Journal, as shown in Figure 16.7:

Figure 16.7 General Journal: cash deposit (no GST)

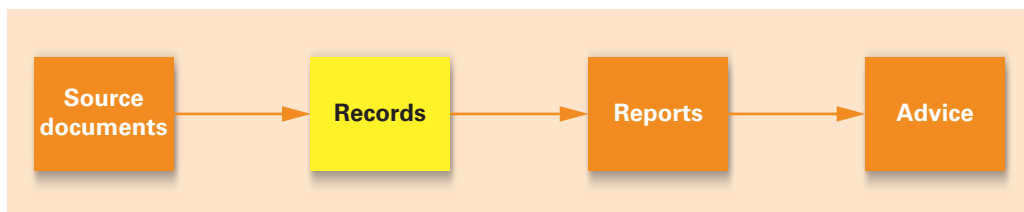
General Journal			
Date	Details	Debit \$	Credit \$
Sept. 14	Bank	500	
	Unearned sales revenue		500
	Cash deposit received on sale of poster (Receipt 135)		

Study tip

Deposits do **not** include GST.

As a result, this deposit might be one of the reasons why the cash of Wollard Prints increased more than its profit, as the **\$500** received is a **cash inflow** but not **revenue** for September 2030.

Cash sale (following a deposit)



Recording the sale (following a deposit)

Once the customer (Hogan) collects the poster on 23 October 2030, the **Sales** revenue of **\$1 200** has been **earned**, and this must be recorded as a **credit** entry, along with a **\$120 credit** to the **GST Clearing** account to recognise the increase in the GST liability to the ATO. This means a total of **\$1 320** must be paid by the customer.

However, **\$500** had already been received as **unearned sales** when the customer paid the deposit on 14 September 2030. Because the economic resource (the poster) has now been transferred to the customer, this liability will decrease via a **debit** entry, meaning only **\$820** will be received as cash and recorded as a **debit** to the **Bank** account.

Finally, the debit to increase Cost of Sales and the credit to decrease Inventory must be recorded at the cost price of \$650 as it would for any sale.

Study tip

Where a deposit is involved, GST is recognised at the point of sale.

Figure 16.8 shows the General Journal entry to record this information:

Figure 16.8 General Journal: cash sale (following deposit)

General Journal			
Date	Details	Debit \$	Credit \$
Oct. 23	Bank	820	
	Unearned sales revenue	500	
	Sales		1 200
	GST Clearing		120
	Cost of Sales	650	
	Inventory		650
	Cash sale of one poster following deposit (Rec. 139)		

Because \$500 had already been received in September 2030, this sale would result in a cash inflow in October 2030 of only **\$820**, but **Sales revenue** of **\$1 200**. As a result, it might contribute to profit being bigger than the increase in cash for October 2030.

Following these transactions, the General Ledger would appear as shown in Figure 16.9:

Figure 16.9 General Ledger: cash sale (following deposit)

General Ledger Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 1	Balance	10 000			
23	Sales / GST Clearing	820			

Unearned sales revenue (CL)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 23	Sales	500	Oct. 1	Balance	500

Sales (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Oct. 23	Unearned sales revenue / Bank	1 200

GST Clearing (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Oct. 1	Balance	1 900
			23	Bank	120

Cost of Sales (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 23	Inventory	650			

Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 1	Balance	35 000	Oct. 23	Cost of Sales	650

The Sales revenue account has one credit entry for \$1 200 but two cross-references to indicate that the cash for the sale comes from the \$500 deposit (unearned sales) received in September 2030 and the \$700 cash received in October 2030.

Note that the cash deposit was received in September 2030, but by the next Period – October 2030 – the Unearned sales revenue account would have been balanced, leaving the cross-reference as **Balance**.

Effect on the Accounting equation

As a result of recording the cash sale following a deposit:

	Increase/Decrease/No effect	Amount \$
Assets	Increase (Increase Bank \$820 , decrease Inventory \$650)	170
Liabilities	Decrease (Decrease Unearned sales \$500 ; increase GST Clearing \$120)	380
Owner's equity	Increase (Profit = Sales \$1 200 less Cost of Sales \$650)	550

Credit sale (following a deposit)

In the previous example, customer (Hogan) paid cash for the balance remaining when collecting the goods on 23 October 2030.

In the event that the sale is made *on credit*, the same information must be recorded, with the only difference being that it would be **Accounts Receivable** rather than **Bank** that is debited, and in this case for the amount *not yet* received.

Figure 16.10 shows how this would be recorded in the General Journal:

Figure 16.10 General Journal: credit sale (following a deposit)

Date	Details	Debit \$	Credit \$
Oct. 23	Accounts Receivable	820	
	Unearned sales revenue	500	
	Sales		1 200
	GST Clearing		120
	Cost of Sales	650	
	Inventory		650
	Credit sale of one poster following deposit (Inv. 139)		



Review questions 16.3

- 1 Identify** two situations that may lead to the receipt of a deposit.
- 2 Show** the debit and credit entries required to record the receipt of a deposit.
- 3 Explain** how GST is accounted for when a deposit is received on a sale.
- 4 Show** the debit and credit entries required to record a cash sale following a deposit.
- 5 State** the effect on the Accounting equation of a cash sale following a deposit.
- 6 Show** the debit and credit entries required to record a credit sale following a deposit.





16.4 Accrued revenue

Unearned revenues are received *before* they are earned, but in some cases revenues will be received *after* they are earned. For example, interest on a term deposit may have been earned but is not due to be received until next month. Other items such as royalties and commissions may only be received after they have been earned, but all must be recognised as revenue in the Period in which they are **earned**.

In order to uphold the Accrual basis assumption, it is necessary to adjust revenue accounts so that they show all revenue earned and not just revenue received. This means that any additional amounts **earned but not yet received** must be added to the revenue accounts.

At the same time, the amount owing to the business for this revenue earned but not yet received should also be recognised as a current asset called **accrued revenue**, as at some time in the future the cash will be received.

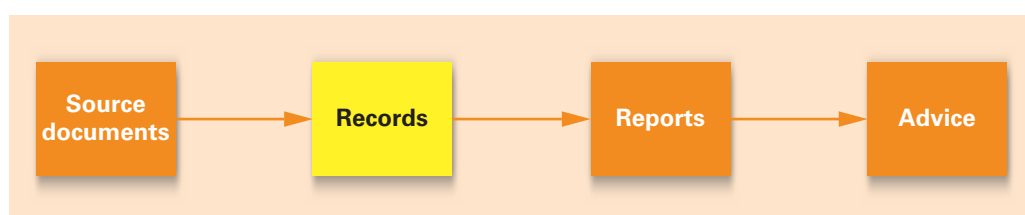
accrued revenue

a current asset that arises when revenue has been earned but cash is yet to be received

Example

On 1 August 2029, Kilvington Kites invested \$10 000 in a term deposit, earning interest at 9% per annum. Interest is **received** on 31 January and 31 July each year by EFT. The firm prepares its reports on **30 June each year** (Memo 81).

Revenue received



On 31 January 2030, Kilvington Kites would receive interest revenue for the first six months of the term deposit, calculated as shown in Figure 16.11:

Figure 16.11 Calculation: interest earned and received

$$\begin{aligned} \text{Interest revenue (Aug. 2029 – Jan. 2030)} &= \$10\,000 \times 9\% \text{ p.a.} \times 6/12 \text{ months} \\ &= \$450 \end{aligned}$$

This interest would have been **received** as cash on **31 January 2030**, and as a result the General Ledger as at 30 June 2030 would appear as shown in Figure 16.12:

Figure 16.12 General Ledger: interest earned and received

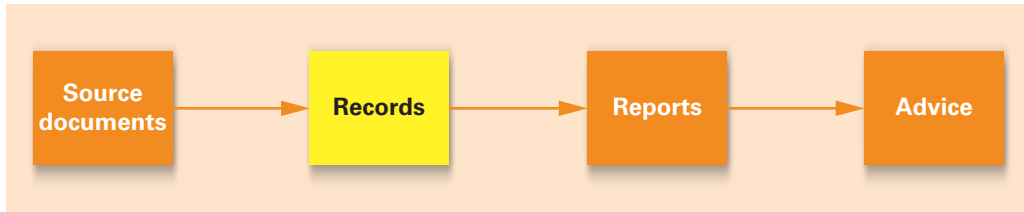
General Ledger Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
1/7/29	Balance	12 000			
31/1/30	Interest revenue	450			

Interest revenue (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			31/1/30	Bank	450

The next interest receipt is not due until 31 July 2030 – sometime in the *next* Period – so the **\$450** currently shown in the Interest revenue account represents the amount actually **received** by 30 June 2030. But is this the total **interest revenue earned** for the year ending 30 June 2030?

Balance day adjustment: accrued revenue

.....



Before the reports can be prepared, the Accountant must determine if any additional revenue has been **earned but not yet received**. If it has, this accrued revenue must be added to the revenue account before the closing entries are made.

It is therefore necessary to adjust the ledger accounts so that:

- the **extra amount earned** (but not yet received) in the *current* Period is added to the revenue account
- the **amount owing** (which will be received in the *next* Period) is shown in the current asset account as Accrued revenue.

Calculating accrued revenue

.....

In this example, there are **five more months** between the last receipt of interest (31 January 2030) and the balance day (30 June 2030) in which the business will still be earning interest revenue. Figure 16.13 shows how this **accrued interest revenue** would be calculated:

Figure 16.13 Calculation: accrued interest revenue

$$\begin{aligned} \text{Accrued interest revenue (Feb. – June 2030)} &= \$10\,000 \times 9\% \text{ p.a.} \times 5/12 \text{ months} \\ &= \$375 \end{aligned}$$

Recording accrued revenue

.....

An extra **\$375** worth of interest has been accrued, and this must be added to the **Interest revenue** account by a **credit** entry. At the same time, the **Accrued interest revenue** account must be **debited** to recognise the current asset for the amount still owing from the finance company.

Figure 16.14 shows the General Journal entries to record this balance day adjustment:

Figure 16.14 General Journal: BDA – accrued revenue

General Journal			
Date	Details	Debit \$	Credit \$
Jun. 30	Accrued interest revenue	375	
	Interest revenue		375
	Balance day adjustment to record five months, interest revenue earned but not yet received (Memo 81)		

After posting the General Journal, the General Ledger would appear as shown in Figure 16.15:

Figure 16.15 General Ledger: interest earned and received

General Ledger					
Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
1/7/29	Balance	12 000			
31/1/30	Interest revenue	450			

Interest revenue (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			31/1/30	Bank	450
			30/6/30	Accrued interest revenue	375

Accrued interest revenue (CA)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
30/6/30	Interest revenue	375			

Study tip

For an item to be recognised as a revenue, the definition requires an item to be earned; receipt of cash is not necessary.

As with the adjustment for unearned revenue, this adjustment does not change Bank, nor does it affect GST Clearing. Rather, it increases revenue and increases assets in the Balance Sheet.

This example also illustrates the fact that revenue does not have to involve an inflow of cash; rather, the revenue increases as a result of an increase in the asset Accrued interest revenue.

Effect on the Accounting equation

As a result of the balance day adjustment for accrued interest revenue:

	Increase/Decrease/No effect	Amount \$
Assets	Increase (Accrued interest revenue)	375
Liabilities	No effect	
Owner's equity	Increase (Interest revenue increases Net Profit)	375

Accrued revenue versus Accounts Receivable

Given our understanding of credit sales, accrued revenue and Accounts Receivable may seem very similar, as both are current assets that result from situations where the revenue is earned before the cash is received. However, they are different in two subtle but important ways.

Accounts Receivable are generated when sales are made on credit, with the revenue earned at the point of sale (as verified by the invoice). By contrast, accrued revenue is generated from transactions *other than sales*, where there is no point of sale to establish that the revenue has been earned.

Further, accrued revenues are not due to be received at balance day: they occur when the balance day falls before an item has been received, but also before it is due to be received. Thus, an accrued revenue will be verified not by an invoice, but by something like a memo. If an invoice has been sent, the transaction is simply a credit sale, and the amount owing should be shown as Accounts Receivable.

Closing the ledger

For an accrued revenue, the amount of the balance day adjustment (\$375) is **not** the total revenue **earned** for the Period. Rather, it is simply the **extra amount owing**: the amount that has been earned but not yet received. It is added to any **amounts received** to calculate the **total revenue earned** for the Period, and it is this total **revenue earned** (\$825) that is closed to the Profit and Loss Summary account. The amount accrued (owing) will be reported as a current asset in the Balance Sheet.

Figure 16.16 shows how the Interest revenue account would appear after it had been closed to the Profit and Loss Summary account, and the Accrued interest revenue account after it had been balanced:

Study tip

When adjusting for accrued revenue, 'add on' the **extra amount received** (to the amount already received).

Figure 16.16 General Ledger: after closing and balancing

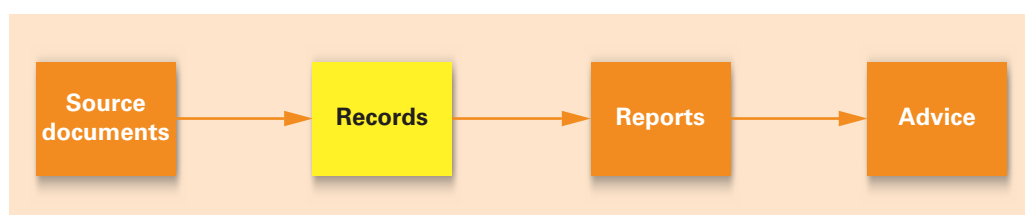
General Ledger Interest revenue (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
30/6/30	Profit and Loss Summary	825	31/1/30	Bank	450
			30/6/30	Accrued interest revenue	375
		825			825

Accrued interest revenue (CA)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
30/6/30	Interest revenue	375	30/6/30	Balance	375
		375			375
1/7/30	Balance	375			

Note how the amount closed to the Profit and Loss Summary account (\$825) is greater than the amount of the adjustment (\$375), as the **total revenue earned** includes both the **\$450 received** and the **\$375 accrued** and **still owing** at the end of the Period.

Had the balance day adjustment not been recorded, **Interest revenue** would have been understated by \$375, meaning Net Profit and owner's equity would also be understated by \$375, and the current asset **Accrued interest revenue** would have been understated by \$375.

Receipt of accrued revenue in subsequent periods



Sometime in the next Period, the amount owing to the business as accrued revenue will be received. Therefore, when the cash is received, some may represent a revenue of the **current** Period, but at least some of the receipt will relate to the **previous** Period. In other words, some of the amount received reduces the asset represented by accrued revenue – revenue earned and accrued *last Period*.

Let's consider again the previous example:

Example (restated)

On 1 August 2029, Kilvington Kites invested \$10 000 in a term deposit, earning interest at 9% per annum. Interest is **received** on 31 January and 31 July each year. The firm prepares its reports on 30 June each year (Memo 81).

Recording the receipt in a subsequent period

On 31 July 2030, the business will once again **receive \$450** interest (as was the case on 31 January 2030 – see Figure 16.11), and because this business reports on 30 June each year, this receipt will occur in the *next* Period – the year ended 30 June **2031**.

However, some of this amount **received** in the year ended 30 June **2031** was actually earned in the year ended 30 June 2030. Specifically, the **\$450 received** includes **\$375** of interest that had been **earned** (but not yet received) in the year ended 30 June 2030. That is, the **accrued interest revenue** earned *last Period* will be received *this Period* as part of the **\$450** received.

This means that of the **\$450** cash received on 31 July 2030, **\$375** is **accrued interest revenue** earned *last Period*, and only the remaining **\$75** represents **interest revenue earned** in the **current** Period.

The receipt of interest on 31 July 2030 would be recorded in the General Journal as shown in Figure 16.17:

Figure 16.17 General Journal: receipt in subsequent period

General Journal			
Date	Details	Debit \$	Credit \$
31/7/30	Bank	450	
	Accrued interest revenue		375
	Interest revenue		75
	Receipt of interest on term deposit for February – July 2030 (EFT Trans. 3015)		

Once the General Journal has been posted to the General Ledger, the accounts would appear as shown in Figure 16.18:

Figure 16.18 General Ledger: receipt in subsequent period

General Ledger					
Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
1/7/30	Balance	15 000			
31/7/30	Interest revenue/ Accrued interest revenue	450			

Accrued interest revenue (CA)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
1/7/30	Balance	375	31/7/30	Bank	375

Interest revenue (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			31/7/30	Bank	75

Note that because it was *closed* on 30 June 2030, the Interest revenue account was empty before this receipt was recorded. By contrast, the Accrued interest revenue account was *balanced* on 30 June 2030, so the only cross-reference in the account was ‘Balance’, but as the amount owing has been received, its balance has now been reduced to zero.

Effect on the Accounting equation

As a result of the receipt of Accrued interest revenue and Interest revenue:

	Increase/Decrease/No effect	Amount \$
Assets	Increase (Increase Bank \$450, decrease Accrued interest rev. \$375)	75
Liabilities	No effect	
Owner’s equity	Increase (Interest revenue increases Net Profit)	75





Review questions 16.4

- 1 **Define** the term 'accrued revenue'.
- 2 **Explain** why accrued revenue is classified as a current asset.
- 3 **Distinguish** between accrued revenue and Accounts Receivable.
- 4 **Show** the General Journal entries necessary to record the balance day adjustment for accrued revenue.
- 5 **Explain** the effect on the Accounting equation of the balance day adjustment for accrued revenue.
- 6 **Explain** why the receipt of accrued revenue in a subsequent period requires the receipt to be 'split' in the General Journal.
- 7 **Explain** the effect on the Accounting equation of the receipt of accrued revenue in a subsequent period.



Where have we been?

- Balance day adjustments are necessary so that an accurate profit is calculated by comparing revenue earned and expenses incurred in the current Period.
- Balance day adjustments may be necessary for:
 - Inventory losses and gains
 - Bad debts expense
 - Prepaid expenses
 - Accrued expenses
 - Depreciation expense
 - Unearned revenues
 - Accrued revenues.
- Each balance day adjustment for revenue increases revenue, thus increasing profit and owner's equity.
- Adjustments for unearned revenues decrease liabilities; adjustments for accrued revenues increase assets.
- Balance day adjustments have no effect on cash but will change Net Profit and the items in the Balance Sheet.



Exercises

Please note: asterisks indicate that an answer for that question is available in the Selected Answers section at the end of this book.



Exercise 16.1 Unearned revenue

On 1 March 2030 Sol's Small Goods received \$9 000 rent (plus \$900 GST) from the solicitor who rents out the top floor of the building (Receipt 54). The solicitor pays rent in advance for the next six months, and Sol's Small Goods prepares its financial reports on 30 June 2030 (Memo 44).

Required

- Record** Receipt 54 in the General Journal of Sol's Small Goods.
- Referring to one Accounting assumption, **explain** why only part of the rent received should be recognised as revenue for the year ended 30 June 2030.
- Calculate** rent revenue earned for the year ending 30 June 2030.
- Record** the balance day adjustment for rent revenue for the year ending 30 June 2030 in the General Journal of Sol's Small Goods.
- Explain** the effect of the adjustment for rent revenue on the Accounting equation of Sol's Small Goods.
- Show** how the General Ledger accounts would appear after posting the journals in parts **a** and **d**. **Balance** the Unearned rent revenue account and **close** the Rent revenue account.



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Exercise 16.2 Cash sale involving a deposit

On 16 January 2030 Clink Glassware received a deposit of \$400 on a bulk order from one of its customers (Receipt 84). The goods, which had a selling price of \$5 000 (plus \$500 GST) and a cost price of \$2 300, were delivered on 27 February 2030, with the customer paying the balance in cash (Receipt 92).

Required

- Record** Receipt 84 in the General Journal of Clink Glassware.
- Explain** how the deposit would be reported in the Balance Sheet of Clink Glassware on 31 January 2030.
- Record** the sale on 27 February 2030 in the General Journal of Clink Glassware.
- Referring to your answer to part **c**, **state** two reasons why the amount recorded in the Bank account does **not** equal the amount recorded in the Sales account.
- Show** how the General Ledger accounts would appear after posting the journals in parts **a** and **c**.



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**Exercise 16.3****Credit sale involving a deposit**

During December 2029 Terry's Appliances received a deposit of \$350 from Hartwells for a washing machine that sells for \$1 400 (plus GST) (Receipt 107). The washing machine, which had a cost price of \$920, was delivered on 4 January 2030, with the balance on credit (Invoice 44). Reports are prepared every month.

Required

- Explain** the effect of the deposit on the Accounting equation of Terry's Appliances.
- Referring to one Qualitative characteristic, **explain** why the deposit is **not** recognised as revenue for December 2029.
- Record** the sale on 4 January 2030 in the General Journal of Terry's Appliances.
- State** the effect of the sale on 4 January 2030 on the Accounting equation of Terry's Appliances.
- Show** how the General Ledger accounts would appear after posting the journals in part c.



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**Exercise 16.4****Credit sale involving a deposit**

Insensitel recently advertised for sale a new version of its award-winning Game Station console. The console is purchased for \$320 (plus GST) and is sold for \$715 (including GST). On 13 November 2030, Spot On department stores ordered 30 game consoles, paying a 20% deposit on the total invoice price (Receipt 90). On 26 November 2030, Insensitel delivered all 30 game consoles to Spot On (Invoice 201).

Required

- Calculate** the cash received by Insensitel on 13 November 2030.
- Explain** why it would be unethical to report the transaction on 13 November 2030 as revenue.
- Explain** why there is no GST liability to be recognised on 13 November 2030.
- Record** the transactions on 13 and 26 November 2030 in the General Journal of Insensitel. Narrations are **not** required.
- Show** how the General Ledger accounts would appear after posting the General Journals in part d.
- State** the effect on the Accounting equation of Insensitel if the sale on 26 November 2030 had **not** been recorded.



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Ethical considerations





Exercise 16.5

Accrued revenue

During August 2030 Gavin Jewellery received \$6 000 interest revenue, but as at 31 August 2030 it was still owed \$700 interest from one of its investments (Memo 95).

Required

- Referring to one Accounting assumption, **justify** why the interest owing should be included in the Interest revenue account for August 2030.
- Record** accrued interest revenue as at 31 August 2030 in the General Journal of Gavin Jewellery.
- Explain** the effect of the adjustment for accrued interest revenue on the Accounting equation of Gavin Jewellery.
- Show** how the Interest revenue and Accrued interest revenue accounts would appear in the General Ledger of Gavin Jewellery as at 31 August 2030 after all closing and balancing entries have been made.
- Explain** how accrued interest revenue would be reported in the Balance Sheet of Gavin Jewellery as at 31 August 2030.



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Exercise 16.6

Accrued revenue

On 1 March 2030 Diana's Delicacies invested \$50 000 in a 10-year term deposit at a fixed rate of 12% per annum. Interest revenue is directly credited to the firm's bank account in equal instalments on the last day of May, August, November and February. This is verified by the bank statement. Balance day is 30 June 2030.

Required

- Calculate** interest revenue received on 31 May 2030.
- Calculate** accrued interest revenue as at 30 June 2030.
- Record** the balance day adjustment for accrued interest revenue for the year ended 30 June 2030 in the General Journal of Diana's Delicacies. A narration is **not** required.
- Show** how the Interest revenue and Accrued interest revenue accounts would appear in the General Ledger of Diana's Delicacies as at 30 June 2030 after all closing and balancing entries have been made.
- Record** the receipt of interest on 31 August 2030 in the General Journal of Diana's Delicacies.
- Explain** why only some of the interest received on 31 August 2030 should be reported as revenue for the year ended 30 June 2031.



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**Exercise 16.7****Accrued revenue**

During April 2030 Weights World received commission revenue of \$8 000 (plus GST) for weights it had sold on behalf of specialist gyms. As at 30 April 2030, a further \$4 000 was still owing (Memo 54). On 3 May 2030, \$6 600 (including GST) was received for commission revenue (Receipt 31).

Required

- Calculate** commission revenue earned for April 2030.
- Record** the commission revenue owing as at 30 April 2030 in the General Journal of Weights World.
- Explain** the effect on the Net Profit of Weights World for April 2030 if the adjustment for accrued commission revenue was **not** made.
- Record** Receipt 31 in the General Journal of Weights World.
- State** the effect of Receipt 31 on the Accounting equation of Weights World.
- Show** how the commission revenue and accrued commission revenue accounts would appear in the General Ledger of Weights World after **all** the information was recorded.



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**Exercise 16.8****Accrued revenue**

On 1 September 2029 Sound Waves invested \$5 000 into a six-month term deposit, with interest earned at 6% per annum, payable at the end of the six-month term. On maturity at 28 February 2030, \$5 150 was transferred to the firm's main bank account (EFT Trans. 619).

Required

- Record** the interest revenue earned for the year ended 31 December 2029 in the General Journal of Sound Waves. A narration is **not** required.
- Record** the cash received on 28 February 2030 in the General Journal of Sound Waves.
- Discuss** how the cash received on 28 February 2030 would be reported in the Cash Flow Statement of Sound Waves for the year ended 31 December 2030.



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Exercise 16.9

Reporting for prepaid and accrued revenues

Rawson Rugs has provided the following Trial Balance as at 31 December 2030:



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RAWSON RUGS Trial Balance as at 31 December 2030		
Account	Debit \$	Credit \$
Accounts Payable		31 070
Accounts Receivable	29 600	
Accumulated depreciation of Premises		19 500
Advertising	340	
Allowance for doubtful debts		1 100
Bad debts	600	
Bank	2 100	
Capital – Parker		51 040
Cartage in	990	
Cost of Sales	20 620	
Depreciation of Premises	3 900	
Discount expense	690	
Drawings	8 610	
GST Clearing		390
Interest expense	400	
Inventory	38 750	
Inventory gain		130
Inventory write-down	240	
Mortgage – Bank of Erica (repayable \$12 000 p.a.)		100 000
Premises	130 000	
Prepaid advertising	1 360	
Profit on disposal of vehicle		650
Sales		43 000
Sales returns	860	
Term deposit (matures 15 April 2035)	3 600	
Unearned sales revenue		1 680
Wages	5 900	
Totals	248 560	248 560

Additional information:

- Reports are prepared on 31 December each year. Balance day adjustments for expense items have already been recorded.
- During the financial year a customer returned a rug that had been soiled during the delivery to her house. This rug was thrown away.
- The term deposit was taken out on 1 December 2030. Interest is earned at 5% per annum, with interest for December 2030 due to be received on 3 January 2031.
- Unearned sales revenue relates to a deposit received from F. Khari; the rugs had a selling price of \$3 300 (including GST) and a cost price of \$2 000. The rugs, and Receipt 401, were delivered on 31 December 2030.

Required

- a. Referring to one Accounting assumption, **explain** the purpose of making balance day adjustments.
- b. **Show** the General Journal entries necessary to record the additional information on 31 December 2030. Narrations are **not** required.
- *c. **Prepare** a Post-adjustment Trial Balance for Rawson Rugs as at 31 December 2030.
- *d. **Prepare** an Income Statement for Rawson Rugs for the year ended 31 December 2030.
- e. Referring to your answer to part d, **identify** two items that were affected by the rug that was returned and thrown away.
- *f. **Prepare** a classified Balance Sheet for Rawson Rugs as at 31 December 2030.

**Exercise 16.10****Revenues, records and reports**

MM's Music has provided the following extract from its Trial Balance as at 30 June 2030:

MM's MUSIC Trial Balance (extract) as at 30 June 2030		
Account	Debit \$	Credit \$
Accounts Payable		44 900
Accounts Receivable	12 300	
Accrued wages		1 900
Allowance for doubtful debts	450	
Bank		1 800
Cost of Sales	120 000	
Discount expense	860	
Discount revenue		410
GST Clearing		630
Inventory	83 460	
Inventory write-down	1 500	
Loan – QuickFin (repayable \$500 per month)		25 000
Prepaid advertising	10 400	
Sales		160 000
Sales returns	3 000	
Unearned sales revenue		16 000



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Additional information (yet to be recorded):

- On 30 June 2030 a vehicle was traded in for \$3 100 on a new vehicle with a cost price of \$23 000 (plus GST). The new van was purchased using the cash borrowed from QuickFin earlier in the month. The old vehicle had been purchased for \$20 000 and had a Carrying value of \$3 500 at the time of the trade-in.
- During June 2030 a sale for \$4 000 (plus GST) was made to A. Gerling (Invoice 36). The inventory had a cost price of \$2 500, but Gerling had paid a \$500 deposit earlier in the month.
- Interest revenue of \$350 had been earned but not yet received.
- Doubtful debts for the period are 2% of Net Sales.

Required

- Suggest** two possible reasons (other than damage) for the Inventory write-down.
- Record** the additional information in the General Journal of MM's Music. Narrations are **not** required.
- Suggest** two reasons for the profit or loss on the disposal of the vehicle.
- Referring to one Qualitative characteristic, **explain** the purpose of closing the ledger.
- Show** the General Journal entries necessary to close the revenue accounts.
- Prepare** a Balance Sheet for MM's Music as at 30 June 2030 showing the firm's current assets and current liabilities. A full Balance Sheet is **not** required.
- Referring to your answer to part **f**, **explain** your classification of GST Clearing.

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Chapter 17

Budgeting



Learning intentions

After completing this chapter, you should be able to:

- **define** 'budgeting'
- **distinguish** between budgeted and actual reports
- **explain** the purposes of budgeting
- **explain** the benefits of using spreadsheets to prepare budgeted reports
- **describe** the budgeting process
- **prepare** budgeted reports for cash, profit and financial position
- **explain** the uses of budgeted reports
- **suggest** strategies to address problems identified by budgeted reports
- **model** the effects of various strategies on the budgeted reports
- **distinguish** between cash and profit items in budgeted reports
- **reconstruct** ledger accounts to determine budgeted figures
- **prepare** variance reports for cash and profit
- **distinguish** between favourable and unfavourable variances
- **discuss** ethical considerations in business decision-making.

Key terms

After completing this chapter, you should be familiar with the following terms:

- budgeting
- budget
- Budgeted Cash Flow Statement
- Budgeted Income Statement
- Budgeted Balance Sheet
- variance report
- variance
- Cash Flow Statement Variance Report
- Income Statement Variance Report.



17.1 Budgeting

budgeting

the process of predicting/estimating the financial consequences of future events

budget

an Accounting report that predicts/estimates the financial consequences of future events

So far this text has dealt only with historical transactions, concentrating on how to identify, record, report and analyse events that have already occurred. This is a logical starting point to analyse business performance, as without information on what has already happened, it is difficult to identify areas that may need to be improved.

However, it is also important to keep an eye on the future. Business owners must attempt to predict what will happen in the future so that they can plan ahead and be prepared for what is likely to occur. This is the focus of **budgeting**: the process of preparing reports that *estimate* or predict the financial consequences of likely *future* transactions, with the term **budget** referring to the reports created by this process.

In common with all accounting reports, budgets have a role in both planning and decision-making. Specifically, budgeting:

- **assists planning** by predicting what is likely to occur in the future.
This allows the owner to prepare so that possible problems may be managed and possible opportunities may be taken.
- **aids decision-making** by providing a standard against which actual performance can be measured.
This allows the owner to identify areas in which performance is unsatisfactory so that remedial action can be taken. This can include the calculation of budgeted ratios and other indicators of performance.

Budgeted reports

A small business owner could prepare a budget on just about any area of business performance, ranging from how many sales are made in a month, to how much will be spent on advertising, and how many returns will be made. This course concentrates on three general-purpose budgets:

- **Budgeted Cash Flow Statement**
A report that shows all expected future cash inflows and cash outflows, the actual bank balance at the start of the period and the expected bank balance at the end of the period
- **Budgeted Income Statement**
A report that shows all expected future revenues and expenses, and the expected Gross Profit, Adjusted Gross Profit and Net Profit
- **Budgeted Balance Sheet**
A report that shows all expected assets, liabilities and owner's equity at some point in the future.

Budgeted versus actual reports

Budgeted reports differ from the actual, or historical, reports we have prepared so far in two key ways:

- 1 Budgets report *future* events rather than historical events. They focus on what will happen rather than what has already happened.
- 2 As a consequence, budgets use *estimates* or *predictions* rather than actual, verifiable data.

In all other ways, budgeted reports are the same as actual reports; they use the same headings and include the same items.

The importance of budgeted sales

As we have seen in earlier chapters, the Accounting reports are interconnected, with transactions reported in one affecting items reported in another, and this is no different for budgets.

In terms of budgeting, it is essential that the preparation of budgeted reports begin with an accurate estimate of budgeted sales. Sales is the driver of business activity, and many other transactions are dependent on, and vary directly (or sometimes indirectly) with, the level of sales.

In terms of the Budgeted Cash Flow Statement and Budgeted Income Statement:

- Sales is the main revenue item and generates significant cash inflows, either as cash sales or, if credit sales are involved, as receipts from Accounts Receivable
- the level of Sales will be crucial in estimating the expenses that vary with the number of units sold (such as Cost of Sales and Wages) and their corresponding cash outflows
- the level of Sales will affect how much inventory is purchased, which will, in turn, affect cash paid to Accounts Payable.

The Balance Sheet does not report Sales directly, but because it uses figures derived from the other two reports, its accuracy is also dependent on an accurate estimate of Sales. At the very least, the expected Bank figure will come straight from the Budgeted Cash Flow Statement, and the expected Net Profit or Loss will be determined in the Budgeted Income Statement.



Spreadsheets

Using spreadsheets is often helpful in preparing budgeted reports, as it allows the owner to:

- **express certain items as functions of others**

This means changes in one figure can lead automatically to changes in others. For instance, formulae can be used in a spreadsheet to link the level of Sales to cash inflows like Receipts from Accounts Receivable in the Budgeted Cash Flow Statement; to expenses like Cost of Sales and Wages in the Budgeted Income Statement; and to the calculation of Inventory for the Budgeted Balance Sheet.

- **model responses to scenarios and courses of action**

Spreadsheets can be used to generate any number of reports based on 'what if' scenarios, providing the owner with information that takes into account alternative situations and courses of action so that better decisions can be made.



Review questions 17.1

- 1 **Define** the term 'budgeting'.
- 2 **Explain** how budgets assist planning.
- 3 **Explain** how budgets assist decision-making.
- 4 **Identify** the information that is reported in a:
 - Budgeted Cash Flow Statement
 - Budgeted Income Statement
 - Budgeted Balance Sheet.
- 5 **State** two differences between the information presented in budgeted reports and actual reports.
- 6 **Explain** why it is important to have an accurate estimate of budgeted Sales.
- 7 **Explain** two advantages of preparing budgeted reports using spreadsheets.



17.2 The budgeting process

It has been said that failing to plan is planning to fail, so the preparation of budgeted reports should be one of the first steps in starting a new business. However, budgeting should be a *continuous process*; budgets should be compared against actual reports to allow problems to be identified, decisions should be made based on that assessment, and then new budgets should be prepared for the next period.

This budgeting process is shown in Figure 17.1:

Figure 17.1 The budgeting process



A budget has limited value if it is not used to make decisions to improve business performance in the future. In addition, it makes little sense to develop a budget for one period without preparing another budget for the next period. Under the Going concern assumption, businesses are assumed to be continuous, so the budgeting process should be continuous too.

The information presented in the budgeted reports should be based on the historical data, but allowances must be made for changes and the effect of new business decisions. Obviously, a new business will not have any historical data on which to rely; this makes budgeting harder for new businesses, but no less important.



Review questions 17.2



- 1 **Explain** why budgeting is described as a process.
- 2 **Outline** the various stages in the budgeting process.
- 3 **Explain** the role of historical data in the preparation of budgeted reports.



17.3 The Budgeted Cash Flow Statement

Budgeted Cash Flow Statement

an Accounting report that attempts to predict all future cash inflows and cash outflows, and thus the estimated bank balance at the end of the budget period

In order to survive, a small business must have sufficient cash to meet its obligations. These obligations will include making payments to Accounts Payable, paying expenses (such as Wages, Rent and Advertising), meeting loan repayments and providing drawings for the owner. In order to do this, the business must generate sufficient cash inflows, chiefly through its cash sales and receipts from Accounts Receivable.

The **Budgeted Cash Flow Statement** attempts to predict all future cash inflows and cash outflows, and thus the estimated bank balance at the end of the budgeted period, to assist the owner in assessing the firm's ability to meet its obligations over the budget period.

Just as the Cash Flow Statement classified the inflows and outflows as Operating, Investing and Financing activities, so too must these classifications be present in the Budgeted Cash Flow Statement.

Operating activities

Operating activities are all cash flows related to the firm's day-to-day trading activities, and typical Operating cash flows for a trading business might include:

Operating cash inflows	Operating cash outflows
Cash sales	Cash purchases (of inventory)
Receipts from Accounts Receivable	Payments to Accounts Payable
Other revenue <i>received</i>	Other expenses <i>paid</i>
GST received	GST paid
GST refund	GST settlement

Ideally, the budgeted Net Cash Flows from Operating Activities will be *positive*. This means that the business is expected to generate sufficient cash from its operations to meet its ongoing obligations.

However, by preparing the Budgeted Cash Flow Statement the owner will be forewarned if the Operating cash flows are expected to be *negative*. The owner can then take steps to address the cash shortage before it occurs by implementing strategies to generate cash inflows and minimise cash outflows.

Generating cash inflows

To generate more cash inflows, the owner may look to:

- **increase sales revenue** by changing selling prices, advertising or the inventory mix; improving customer service; or even changing location (see Section 10.5 for more details)
- **increase receipts from Accounts Receivable** by managing Accounts Receivable through credit checks, discounts for early settlement and reminders (see Section 6.7 for more details).

Reducing cash outflows

To reduce cash outflows, the owner may look to:

- **defer payments to Accounts Payable** to utilise the full length of time available under the credit terms
- **reduce cash paid for expenses** by finding an alternative (cheaper) supplier, changing inventory handling procedures, changing rosters for staff, providing extra training, adopting energy-saving practices, replacing costly non-current assets or even moving to cheaper premises (see Section 10.5 for more details).

These strategies should always be legal and ethical and should also consider the long- as well as short-term interests of the business so that a short-term gain in terms of cash does not generate long-term costs in terms of both cash and profit. The owner must be particularly mindful of reducing cash paid for expenses, as the benefits those expenses provide are vital in the earning of Sales and hence the generation of cash inflows; cutting expenses may make the cash situation worse rather than better.

Ethical considerations

Investing activities

Investing activities are all cash flows relating to the purchase or sale of non-current assets and would typically include:

Investing cash inflows	Investing cash outflows
Proceeds from cash sale of a non-current asset	Cash purchase of a non-current asset

Given that non-current assets are frequently expensive, and sales of non-current assets are rare, it will be common for budgeted Net Cash Flows from Investing Activities to be negative.

Financing activities

Financing activities are all cash flows that are the result of changes in the firm's financial structure, and they would typically include:

Financing cash inflows	Financing cash outflows
Receipt of loan	Loan repayment (principal only)
Capital contribution (cash only)	Cash drawings

Whether Net Cash Flows from Financing Activities is positive or negative will depend very much on whether the business is expanding or simply continuing its operations as they are. There may in fact be a relationship between Financing and Investing activities; negative Investing cash flows (due to the purchase of non-current assets) could be financed by positive Financing cash flows (in the form of a loan or capital contribution).

Example

Denzel Washing Machines will begin trading on 1 March 2031 and has provided the following estimates for its first month of operations:

- The owner will make a capital contribution of \$30 000 to commence operations.
- Cash sales are estimated to be \$24 000 (plus GST).
- Credit sales are estimated to be \$17 600 (including GST). Of this amount, \$11 000 is expected to be received in March 2031.
- All inventory will be purchased on credit. Purchases for March 2031 are expected to be \$35 000 plus (\$3 500 GST). At the end of March 2031, it is anticipated that \$6 500 will be owed to Accounts Payable.
- Cost of Sales is expected to be \$20 000 and, based on the experience of similar firms, Inventory loss is expected to be \$300.
- The following expenses will be incurred during March 2031:
 - Wages \$8 000
 - Advertising \$1 300 (plus \$130 GST)
 - Depreciation of Office equipment \$100
- Rent for the next six months will be paid on 1 March 2031: \$9 000 (plus \$900 GST).
- New office equipment worth \$5 000 (plus \$500 GST) will be purchased on 1 March 2031 using cash.
- Cash drawings will be \$1 000. Drawings of inventory is expected to be \$600.
- On 31 March 2031, \$10 000 will be borrowed from AXC Bank to purchase a new vehicle. Beginning in April 2031, \$500 will be paid off the principal each month. The vehicle will not be purchased until April 2031.

Based on this information, the Budgeted Cash Flow Statement for Denzel Washing Machines is shown in Figure 17.2:

Figure 17.2 Budgeted Cash Flow Statement

DENZEL WASHING MACHINES Budgeted Cash Flow Statement for March 2031		
	\$	\$
CASH FLOWS FROM OPERATING ACTIVITIES		
Cash sales	24 000	
Receipts from Accounts Receivable	¹ 11 000	
GST received	² 2 400	37 400
Payments to Accounts Payable	³ (32 000)	
Wages	(8 000)	
Advertising	(1 300)	
Rent	⁴ (9 000)	
GST paid	⁵ (1 530)	51 830
Net Cash Flows from Operating Activities		(14 430)
CASH FLOWS FROM INVESTING ACTIVITIES		
Office equipment		(5 000)
Net Cash Flows from Investing Activities		(5 000)
CASH FLOWS FROM FINANCING ACTIVITIES		
Capital contribution	30 000	
Loan – AXC Bank	10 000	40 000
Drawings		(1 000)
Net Cash Flows from Financing Activities		39 000
Net Increase (Decrease) in Cash Position		19 570
Add Bank Balance at start (1 March 2031)		Nil
Bank Balance at end (31 March 2031)		19 570

Note the following in Figure 17.2:

- 1 Credit sales is a revenue but **not** a cash flow: only the cash received from Accounts Receivable (\$11 000) is reported here.
- 2 GST received (\$2 400) is calculated as 10% of the Cash sales figure.
- 3 Credit purchases of inventory plus GST (\$35 000 + \$3 500 = \$38 500) will create a debt to Accounts Payable, but at the end of March 2031 only \$6 500 will remain owing, meaning the difference (\$32 000) will be paid to Accounts Payable.
- 4 Regardless of how much has been incurred, the total cash paid for rent (\$9 000) is reported here.
- 5 Total GST paid (\$1 530) is calculated by adding the GST paid on advertising (\$130), prepaid rent (\$900) and office equipment (\$500).

Study tip

Reading skills are essential in budgeting questions; you will find most of the answers in the question itself if you look hard enough.



In addition, note that not all the transactions are reported in the Budgeted Cash Flow Statement, because not all involve cash. In this example, Credit sales and Credit purchases (and the GST related to each), Cost of Sales, Inventory loss, Depreciation of Office equipment and Drawings of inventory have been excluded as they are non-cash transactions. They may affect other budgeted reports, but not the Budgeted Cash Flow Statement.

Consecutive periods

The preceding budget relates only to one month taken in isolation, but it would be wise for a business to prepare budgets for consecutive months to show the effect of monthly variations; that is, separate budgets for March, April, May, etc. could be prepared and presented side by side to show trends in inflows and outflows from month to month.

Such a budget may appear as shown in Figure 17.3:

Figure 17.3 Budgeted Cash Flow Statement: consecutive periods

DENZEL WASHING MACHINES Budgeted Cash Flow Statement for March – May 2031			
	March	April	May
CASH FLOWS FROM OPERATING ACTIVITIES			
Cash sales	24 000	28 000	27 000
Receipts from Accounts Receivable	11 000	15 000	13 000
GST received	2 400	2 800	2 860
GST refund	–	–	1 100
Total Operating Inflows	37 400	45 800	43 960
Payments to Accounts Payable	(32 000)	(36 000)	(33 000)
Wages	(8 000)	(9 000)	(8 500)
Advertising	(1 300)	(1 300)	(1 300)
Rent	(9 000)	–	–
GST paid	(1 530)	(1 130)	(830)
Total Operating Outflows	(51 830)	(46 430)	(43 630)
Net Cash Flows from Operating Activities	(14 430)	(1 630)	330
CASH FLOWS FROM INVESTING ACTIVITIES			
Proceeds on Sale of Equipment	–	–	1 600
Office equipment	(5 000)	–	(7 000)
Vehicle		(10 000)	
Net Cash Flows from Investing Activities	(5 000)	(10 000)	(5 400)
CASH FLOWS FROM FINANCING ACTIVITIES			
Capital contribution	30 000	–	–
Loan – AXC Bank	10 000	(500)	(500)
Drawings	(1 000)	(1 000)	(1 000)
Net Cash Flows from Financing Activities	39 000	(1 500)	(1 500)
Net Increase (Decrease) in Cash Position	19 570	(13 130)	(6 570)
Add Bank Balance at start	Nil	19 570	6 440
Bank Balance at end	19 570	6 440	(130)

Note how the balance at the end of March (\$19 570) is then transferred to become the balance at the start of April; April's closing balance (\$6 440) becomes the opening balance for May and so on.

This type of budget allows the owner to identify monthly and even seasonal trends and can be very useful for identifying *when* to undertake a particular cash activity, such as the purchase of a non-current asset or repayment of a loan.

In general, more frequent budgets will be more accurate, and therefore more useful as benchmarks for comparison. In addition, they will allow for the earlier detection of problems, so that corrective action can be taken in a timely fashion and can perhaps stop a small problem from becoming large.

Uses of the Budgeted Cash Flow Statement

Planning

The Budgeted Cash Flow Statement aids planning by allowing the owner to prepare in advance for an expected cash surplus or cash deficit.

Should the budget predict an overall **net decrease in cash position**, the owner might:

- defer the purchase of non-current assets, or use a loan for a purchase
- defer loan repayments
- reduce cash drawings
- make a cash capital contribution
- organise (or extend) an overdraft facility.

Should the budget predict an overall **net increase in cash position**, the owner might use the extra cash to:

- purchase more or newer non-current assets
- increase loan repayments
- increase cash drawings
- expand trading activities by increasing advertising or employing more staff.

Alternatively, a business starting a period with a bank overdraft may choose to do nothing and let the expected cash surplus bring its bank balance back into the black.

Decision-making

In addition, the Budgeted Cash Flow Statement aids decision-making because it sets a standard (benchmark) for the assessment of the firm's actual cash performance. By comparing budgeted and actual cash flows, the owner can identify problem areas, and then act to correct the situation.

Specifically, the owner could assess:

- the effectiveness of advertising in generating sales
- the effectiveness of procedures for collecting cash from Accounts Receivable
- policies for making payments to Accounts Payable
- the level of cash payments for expenses
- the level of cash drawings
- the adequacy of finance for the purchase of non-current assets.



Review questions 7.3

- 1 **Define** the following terms as they relate to the Budgeted Cash Flow Statement, and **provide** one example of an inflow and one example of an outflow that would fall under each of these headings:
 - Operating activities
 - Investing activities
 - Financing activities.
- 2 **Explain** why it is important that budgeted Net Cash Flows from Operating Activities is positive.
- 3 **State** two actions the owner could take to:
 - increase estimated Operating cash inflows
 - reduce estimated Operating cash outflows.
- 4 **State** two expected expenses that will **not** be reported in the Budgeted Cash Flow Statement.
- 5 **Explain** why it is usual for Net Cash Flows from Investing Activities to be negative.
- 6 **Explain** the possible relationship between the cash flows from Investing and Financing activities.
- 7 **Explain** two benefits of preparing budgets more frequently than once a year.
- 8 **Explain** how the Budgeted Cash Flow Statement can assist planning.
- 9 **State** three actions the owner could take to address a budgeted cash decrease.
- 10 **State** three actions the owner could take to utilise a budgeted cash increase.
- 11 **Explain** how the Budgeted Cash Flow Statement can assist decision-making.



17.4 Calculating cash flows from credit transactions

Credit transactions are not reported in the Budgeted Cash Flow Statement as they do not involve cash flows. (This is in fact what makes them credit transactions!) This does not mean that they do not have an *effect* on cash flows: credit sales will generate receipts from Accounts Receivable as a cash inflow, and credit purchases will generate payments to Accounts Payable as a cash outflow. But these cash flows will not occur at the same time, and maybe not even in the same period, as the credit transactions that caused them. This means it is often necessary to calculate the cash flows that result from credit transactions that have occurred in the current and previous periods.

Cash sales and receipts from Accounts Receivable

When estimating sales, a business is actually estimating its revenue. Where all sales are made for cash, this will of course mean it is also estimating its cash inflow. But where sales are made on credit terms, it will be necessary to calculate the cash flows separately.

In some cases, it may be necessary to calculate how much will be received from Accounts Receivable during the *budget* period from credit sales made in *previous* periods and, in some cases, the *current* period. Integral to this type of calculation is knowledge of the historical behaviour of Accounts Receivable in making their repayments. The business owner needs to be able to estimate approximately how long Accounts Receivable take to pay.

On the basis of the firm's historical information, owners can estimate what percentage of Accounts Receivable will pay within a month of the sale, within two months, and so on (and what percentage will not pay at all), allowing them to calculate the expected receipts from Accounts Receivable for the budget period.

Facial Attractions sells make-up and other cosmetics and wants to prepare a Budgeted Cash Flow Statement for December 2031. On 30 November 2031, its owner provided the following sales data:

Actual sales	October	19 000
	November	23 000
Budgeted sales	December	25 000

- Sales figures do **not** include GST.
- 20% of sales are made on cash terms; 80% are made on credit.
- An analysis of Accounts Receivable reveals that 25% of Accounts Receivable usually pay in the month after the sale to receive a 5% discount, 70% pay two months after the sale, and 5% end up as uncollectable.

Example

In preparing a Budgeted Income Statement, no further calculations would be necessary, as information relating to expected **Sales** revenue for each month is already provided. However, in order to prepare a Budgeted Cash Flow Statement, it is necessary to calculate expected cash sales and receipts from Accounts Receivable.

Cash sales

Given that Facial Attractions has both cash and credit sales, it is necessary to calculate how much of the total **sales** figure is cash sales (and how much is made on credit). This is shown in Figure 17.4:

Figure 17.4 Calculation: cash sales

$$\begin{aligned}
 \text{Cash sales} &= \text{Budgeted sales} \times 20\% \text{ Cash sales} \\
 &= \$25\,000 \times 20\% \\
 &= \$5\,000
 \end{aligned}$$

This Cash sales of \$5 000 can go straight into the Budgeted Cash Flow Statement for December 2031 as an Operating inflow. Given that these are sales, we must also calculate the GST received (\$5 000 cash sales $\times$ 10% GST = \$500) and include this as an Operating inflow for December 2031.

The cash receipts arising from cash sales for December 2031 would thus be as shown in Figure 17.5:

Figure 17.5 Budgeted Cash Flow Statement: cash sales and GST received

FACIAL ATTRACTIONS Budgeted Cash Flow Statement for December 2031		
	\$	\$
CASH FLOWS FROM OPERATING ACTIVITIES		
Cash sales	5 000	
GST received	500	

Receipts from Accounts Receivable

The calculation of cash received from Accounts Receivable in *December* 2031 is a little more involved, as it is a result of credit sales made *in earlier months*. In this example, cash is collected from Accounts Receivable in the month following sale, and the month after that, meaning that the cash collected in December 2031 will come from credit sales made in October 2031 (25% who are then granted a 5% discount) and November 2031 (70%).

Figure 17.6 shows the calculation of the cash received from Accounts Receivable in December 2031 from credit sales made in October 2031:

Figure 17.6 Calculation: cash received from Accounts Receivable (October 2031 sales)

Sales	\$19 000
+ GST on sales (10%)	1 900
Total sales (including GST)	20 900
× Percentage of sales made on credit (80%)	16 720
× Percentage received in December: two months after sale (70%)	11 704
– Discount expense	nil
Cash received from Accounts Receivable (in December 2031)	\$11 704

Note how the GST charged on the sales is included in the calculation, as this will be part of the amount received from Accounts Receivable when the cash is collected.

Calculating the cash received from Accounts Receivable in December 2031 from credit sales made in November 2031 involves a further step, as these Accounts Receivable are granted a discount of 5%. This calculation is shown in Figure 17.7:

Study tip

With the discount, don't just multiply \$20 240 by 20% (that is, 25% less 5%); this would give the discount to *all* Accounts Receivable, rather than just those who pay within one month.

Figure 17.7 Calculation: cash received from Accounts Receivable (November 2031 sales)

Sales	\$23 000
+ GST on sales (10%)	2 300
Total sales (including GST)	25 300
× Percentage of sales made on credit (80%)	20 240
× Percentage received in December: one month after sale (25%)	5 060
– Discount expense (5%)	253
Cash received from Accounts Receivable (in December 2031)	\$4 807

Adding these two amounts together – the cash received from sales made in October 2031 (\$11 704) and the cash received from sales made in November 2031 (\$4 807) – gives us the total cash received from Accounts Receivable in December 2031, as shown in Figure 17.8

Figure 17.8 Calculation: cash received from Accounts Receivable for December 2031

Cash received from Accounts Receivable (from October 2031 Sales)	\$11 704
Cash received from Accounts Receivable (from November 2031 Sales)	4 807
Total cash received from Accounts Receivable (in December 2031)	\$16 511

In the Budgeted Cash Flow Statement, cash received from Accounts Receivable in December 2031 will come from credit sales made in October and November 2031. Including this information produces a Budgeted Cash Flow Statement as shown in Figure 17.9:

Figure 17.9 Budgeted Cash Flow Statement including receipts from Accounts Receivable

FACIAL ATTRACTIONS Budgeted Cash Flow Statement for December 2031		
	\$	\$
CASH FLOWS FROM OPERATING ACTIVITIES		
Cash sales	5 000	
GST received	500	
Receipts from Accounts Receivable	16 511	22 011

Although the cash received from Accounts Receivable includes some GST, it is not necessary to identify this amount separately as the GST is only identified at the point of sale: only GST received on cash sales must be reported separately.

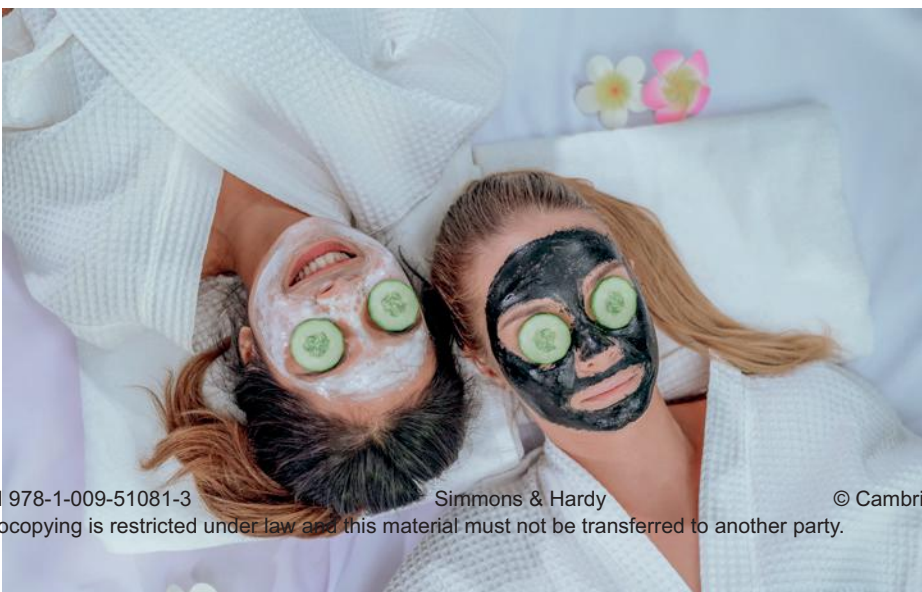
Calculating payments to Accounts Payable

This type of thinking can also be applied to calculate payments to Accounts Payable, with credit purchases substituting for credit sales. To do so, information is required on how frequently Accounts Payable are paid so that the business can calculate *when* and *how much* Accounts Payable will be paid during the budget period.



Review questions 17.4

- 1 Referring to one Accounting assumption, **explain** why it may be necessary to calculate receipts from Accounts Receivable when preparing a Budgeted Cash Flow Statement.
- 2 **Explain** the role of historical data in the calculation of receipts from Accounts Receivable.
- 3 **Explain** why GST must be included when calculating receipts from Accounts Receivable.
- 4 **Explain** why the GST must be identified when cash sales are reported in the Budgeted Cash Flow Statement.
- 5 **State** one reason why the GST is **not** identified when cash received from Accounts Receivable is reported in the Budgeted Cash Flow Statement.





17.5 The Budgeted Income Statement

Budgeted Income Statement

an Accounting report that shows expected future revenues and expenses and, as a result, the expected profit for the budget period

Given that the main objective of a trading business is to earn a profit, the owner should plan ahead for how to achieve this goal. In addition, the firm must have some type of benchmark against which it can assess its trading (profit) performance. Both of these aims are met by the preparation of a **Budgeted Income Statement**, which attempts to predict revenues and expenses for the budget period.

Cash versus profit

At this point it is probably worth remembering that cash and profit are different measures of performance, and that as a result the items reported in the Budgeted Income Statement will not necessarily be the same as those reported in the Budgeted Cash Flow Statement. Whereas the **Budgeted Cash Flow Statement** reports expected **cash inflows** and **cash outflows** over the budget period, the **Budgeted Income Statement** reports expected **revenues earned** and expected **expenses incurred** over the budget period.

As some **cash items** are **not revenues** or **expenses**, they will be omitted from the Budgeted Income Statement altogether:

Study tip

Strictly speaking, proceeds from the cash sale of a non-current asset represent revenue. However, it is only the overall profit (or loss) on the disposal that is reported in the Budgeted Income Statement.

Cash inflows that are not revenues	Cash outflows that are not expenses
GST received	GST paid
GST refund	GST settlement
Proceeds from the cash sale of a non-current asset	Cash payment for a non-current asset
Capital contribution of cash	Cash drawings
Receipt of loan	Repayment of loan principal

However, the Budgeted Income Statement will include some **revenues** and **expenses** that are **not** reported as **cash flows**:

Revenues that are not cash inflows	Expenses that are not cash outflows
Inventory gain	Inventory loss
	Inventory write-down
Profit on disposal of non-current asset	Loss on disposal of non-current asset
	Bad debts expense
	Depreciation expense

Finally, some of the items will affect both budgets, but the amounts may differ:

Revenue/expense	Cash inflow/outflow
Credit sales	Receipts from Accounts Receivable
Cost of Sales	Payments for Inventory
Other revenue <i>earned</i>	Other revenue <i>received</i>
Other expense <i>incurred</i>	Other expense <i>paid</i>

Let's revisit the information that was used to generate the Budgeted Cash Flow Statement in Figure 17.2 to illustrate how the Budgeted Income Statement will appear, but this time with the **revenues** and **expenses** highlighted.

Example

Denzel Washing Machines will begin trading on 1 March 2031 and has provided the following estimates for its first month of operations:

- The owner will make a capital contribution of \$30 000 to commence operations.
- Cash sales are estimated to be \$24 000 (plus GST).
- Credit sales are estimated to be \$17 600 (including GST). Of this amount, \$11 000 is expected to be received in March 2031.
- All inventory will be purchased on credit. Purchases for March 2031 are expected to be \$35 000 (plus \$3 500 GST). At the end of March 2031, it is anticipated that \$650 will be owed to Accounts Payable.
- Cost of Sales is expected to be \$20 000 and, based on the experience of similar firms, Inventory loss is expected to be \$300.
- The following expenses will be incurred during March 2031:
 - Wages \$8 000
 - Advertising \$1 300 (plus \$130 GST)
 - Depreciation of Office equipment \$100
- Rent for the next six months will be paid on 1 March 2031: \$9 000 plus (\$900 GST).
- New office equipment worth \$5 000 (plus \$500 GST) will be purchased on 1 March 2031 using cash.
- Cash drawings will be \$1 000. Drawings of inventory is expected to be \$600.
- On 31 March 2031, \$10 000 will be borrowed from AXC Bank to purchase a new vehicle. Beginning in April 2031, \$500 will be paid off the principal each month. The vehicle will not be purchased until April 2031.

The Budgeted Income Statement for March 2031 is shown in Figure 17.10:

Figure 17.10 Budgeted Income Statement

DENZEL WASHING MACHINES Budgeted Income Statement for March 2031		
	\$	\$
Revenue		
Cash sales	24 000	
Credit sales	¹ 16 000	40 000
Less Cost of Goods Sold		
Cost of Sales		20 000
Gross Profit		20 000
less Inventory loss		300
Adjusted Gross Profit		19 700
Less Other expenses		
Wages	8 000	
Advertising	1 300	
Depreciation of Office equipment	100	
Rent expense	² 1 500	10 900
Net Profit		8 800

Note the following in Figure 17.10:

- 1 Credit sales are estimated to be \$17 600 (including GST). Thus, the amount of credit sales revenue is only \$16 000; that is, $\$17\,600 \times 10/11$.
- 2 The amount paid for rent in advance (\$9 000) is not shown in this report as it is the purchase of a current asset. However, one month has been incurred and must be recognised as an expense; that is, $\$9\,000 \times 1/6 \text{ months} = \$1\,500 \text{ rent expense}$.



Uses of the Budgeted Income Statement

The Budgeted Income Statement **aids planning** because it indicates the future requirements of the firm relating to issues such as staffing, which may require hiring or firing; inventory levels; or advertising campaigns.

It also **aids decision-making** by providing a standard against which trading performance can be measured, allowing problems to be identified and corrective action taken. This benchmark can act as a *target or goal* to motivate staff and management.

Specifically, the owner could assess:

- the level of sales and the effectiveness of advertising
- the mark-up achieved
- the level of inventory loss to assess inventory management procedures
- expense control
- staff performance.



Review questions 17.5

- 1 **Explain** the difference between a Budgeted Cash Flow Statement and a Budgeted Income Statement.
- 2 **State** two examples of:
 - cash inflows that are **not** revenues
 - cash outflows that are **not** expenses.
- 3 **State** two examples of:
 - revenues that are **not** cash inflows
 - expenses that are **not** cash outflows.
- 4 **Explain** how a Budgeted Income Statement can be used to assist planning.
- 5 **Explain** how a Budgeted Income Statement can be used to assist decision-making.
- 6 **State** three areas of business performance the owner might assess by using the Budgeted Income Statement as a benchmark.



17.6 The Budgeted Balance Sheet

The **Budgeted Balance Sheet** attempts to predict the firm's assets, liabilities and owner's equity at some point in the future.

Denzel Washing Machines will begin trading on 1 March 2031 and has provided the following estimates for its first month of operations:

- The owner will make a capital contribution of \$30 000 to commence operations.
- Cash sales are estimated to be \$24 000 (plus GST).
- Credit sales are estimated to be \$17 600 (including GST). Of this amount, \$11 000 is expected to be received in March 2031.
- All inventory will be purchased on credit. Purchases for March 2031 are expected to be \$35 000 (plus \$3 500 GST). At the end of March 2031, it is anticipated that \$6 500 will be owed to Accounts Payable.
- Cost of Sales is expected to be \$20 000 and, based on the experience of similar firms, Inventory loss is expected to be \$300.
- The following expenses will be incurred during March 2031:
 - Wages \$8 000
 - Advertising \$1 300 (plus \$130 GST)
 - Depreciation of Office equipment \$100
- Rent for the next six months will be paid on 1 March 2031: \$9 000 (plus \$900 GST).
- New office equipment worth \$5 000 (plus \$500 GST) will be purchased on 1 March 2031 using cash.
- Cash drawings will be \$1 000. Drawings of inventory is expected to be \$600.
- On 31 March 2031, \$10 000 will be borrowed from AXC Bank to purchase a new vehicle. Beginning in April 2031, \$500 will be paid off the principal each month. The vehicle will not be purchased until April 2031.

Budgeted Balance Sheet

an Accounting report that predicts assets, liabilities and owner's equity at some point in the future

Example

The budgeted Balance Sheet as at 31 March 2031 is shown in Figure 17.11:

Figure 17.11 Budgeted Balance Sheet

DENZEL WASHING MACHINES Budgeted Balance Sheet as at 31 March 2031					
	\$	\$		\$	\$
Current Assets			Current Liabilities		
Bank ¹	19 570		Accounts Payable	6 500	
Inventory ²	14 100		Loan – AXC Bank ⁶	6 000	12 500
Accounts Receivable ³	6 600				
Prepaid rent ⁴	7 500		Non-Current Liabilities		
GST Clearing ⁵	1 030	48 800	Loan – AXC Bank ⁶		4 000
Non-Current Assets			Owner's equity		
Office equipment	5 000		Capital – Denzel	30 000	
less Accumulated depreciation	100	4 900	add Net Profit ⁷	8 800	
				38 800	
			less Drawings ⁸	1 600	37 200
Total Assets		53 700	Total Equities		53 700

Note the following in Figure 17.11.

- 1 Bank: see Figure 17.2: Budgeted Cash Flow Statement (**Bank Balance at end**)
- 2 Inventory: see Figure 17.12
- 3 Accounts Receivable: Credit sales including GST (\$17 600) less Receipts from Accounts Receivable (\$11 000)
- 4 Prepaid rent expense: Rent paid (\$9 000) less Rent expense (\$1 500)
- 5 GST Clearing: see Figure 17.13
- 6 Loan – AXC Bank: repayable \$500 per month ($12 \times \$500 = \text{CL}$; remainder NCL)
- 7 Net Profit: see Figure 17.10: Budgeted Income Statement (Net Profit)
- 8 Drawings: Cash drawings (\$1 000) plus Drawings of inventory (\$600)

It is worth considering in detail how two of these items in the budgeted Balance Sheet – **Inventory** and **GST Clearing** – were calculated. Given our knowledge of double-entry Accounting, we will express the calculation in the form of a ledger account.

Figure 17.12 shows the **Inventory account**, used to calculate the balance on hand as at 31 March 2031:

Figure 17.12 Inventory account

General Ledger Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
March 1	Balance	Nil	March 31	Cost of Sales	20 000
31	Accounts Payable	35 000		Drawings	600
				Inventory loss	300
				Balance	14 100
		35 000			35 000
April 1	Balance	14 100			

Figure 17.13 shows the **GST Clearing account**, used to calculate the balance as at 31 March 2031:

Figure 17.13 GST Clearing account

General Ledger GST Clearing (A/L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
March 31	Bank	1 530	March 1	Balance	Nil
	Accounts Payable	3 500	31	Bank	2 400
				Accounts Receivable	1 600
				Balance	1 030
		5 030			5 030
April 1	Balance	1 030			

The debit balance in this account means GST Clearing is an asset: a present economic resource (the refund owed to the business by the ATO) controlled by the business. This has occurred because the business has just started, so it has purchased more inventory than it has sold, and also purchased a number of assets such as office equipment and prepaid rent expense. Thus, the GST on purchases (\$1 530 + \$3 500) is *greater* than the GST on sales (\$2 400 + \$1 600).

Uses of the Budgeted Balance Sheet

The Budgeted Balance Sheet can be used as a **planning** document. By detailing the expected carrying value of non-current assets at some time in the future, it helps the owner prepare for their replacement. When used in conjunction with the Budgeted Cash Flow Statement, it can also be used to plan for the repayment of loans and to set the level for drawings for the coming period.

In addition, it also **aids decision-making** by setting a benchmark for indicators that assess liquidity and stability. Specifically, it will allow the owner to calculate the Budgeted Working Capital Ratio, which can be used to assess liquidity; and the Debt Ratio, which can be used to assess stability. (These ratios are covered in detail in Chapters 18 and 19.)



Review questions 17.6

- 1 **State** three items reported in the Budgeted Balance Sheet that are affected by the transactions reported in the:
 - Budgeted Cash Flow Statement
 - Budgeted Income Statement.
- 2 **Explain** how the Budgeted Balance Sheet can be used to assist planning.
- 3 **Explain** how the Budgeted Balance Sheet can be used to assist decision making.



17.7 Account reconstruction

The preceding example illustrated how ledger accounts can be used to calculate closing balances for the Budgeted Balance Sheet. This is not the only use of ledger accounts in the budgeting process. If the closing balance has been predicted, it is possible to work backwards to calculate other figures that may be necessary to complete the Budgeted Cash Flow Statement or Budgeted Income Statement.

Where only some information is known, an understanding of ledger accounts and double-entry Accounting can be used to calculate missing or unknown figures by reconstructing the relevant ledger account. Reconstructing a ledger account involves three steps:

- 1 **Identify** the entries that would be expected in a particular ledger account.
- 2 **Match** these entries with figures (amounts) that are known.
- 3 **Complete** the ledger account to calculate the figures that are not known.

Study tip

To select which account to reconstruct, think of the transaction that is missing: it will appear in two ledger accounts. Then choose the account for which the best information is available.

On 1 July 2030, Kings Sportswear had Accounts Receivable of \$12 000. During July 2030, **credit sales** were expected to be \$88 000 (including GST), and sales returns were budgeted to be \$1 200 (plus GST). Discount expense was expected to be \$400, and a bad debt of \$900 (plus GST) was to be written off. At 31 July 2030, **Accounts Receivable** was expected to be **\$15 000**.

Example

The data above is sufficient to prepare the Budgeted Income Statement as **Credit sales** is known (\$80 000), and the Budgeted Balance Sheet can be prepared as **Accounts Receivable** at the end is known (\$15 000). At this point the Budgeted Cash Flow Statement cannot be prepared, as **Receipts from Accounts Receivable** is unknown. However, there is sufficient information to reconstruct the Accounts Receivable account to calculate **Receipts from Accounts Receivable**.

Step 1: Identify expected entries

Including every transaction this course has covered so far, a complete Accounts Receivable account, excluding amounts, would appear as shown in Figure 17.14:

Figure 17.14 Accounts Receivable template

General Ledger Accounts Receivable (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance		July	Bank /	
	Sales / GST Clearing			Discount expense	
				Sales returns / GST Clearing	
				Allowance for doubtful debts / GST Clearing	
			31	Balance	
Aug. 1	Balance				

Study tip

Devise a code to remember the number of entries in each account. Accounts Receivable has six entries: two on the debit side and four on the credit side. For example, you could call it 'the 2 by 4 account'

This kind of 'empty' account is sometimes called a 'template'.

Keep in mind that although we are calculating **Receipts from Accounts Receivable**, it will be identified in the Accounts Receivable account by the cross-reference 'Bank'. Also note that the 'Bank / Discount expense' entry has been split across two lines to separate the **cash received from Accounts Receivable (Bank)** from the discount expense. Finally, note that the bad debts written off is cross-referenced to 'Allowance for doubtful debts', as the cross reference 'bad debts' is only used in the balance day adjustment to create the allowance.

Step 2: Match amounts

After entering the amounts that are *known*, the Accounts Receivable account would appear as shown in Figure 17.15:

Figure 17.15 Accounts Receivable account: including known amounts

General Ledger Accounts Receivable (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	12 000	July	Bank /	
	Sales/GST Clearing	88 000		Discount expense	400
				Sales returns / GST Clearing	1 320
				Allowance for doubtful debts / GST Clearing	990
			31	Balance	15 000
Aug. 1	Balance	15 000			

The sales returns figure was provided as \$1 200 (*plus* GST), meaning the total figure to be recorded here is \$1 320 (\$1 200 plus \$120 GST). A similar principle applies to bad debts written off, which is recorded as \$990 (\$900 plus \$90 GST).

Step 3: Complete the ledger account

By completing the account, the missing figure – which in this case is **Receipts from Accounts Receivable** – can be determined. This is shown in Figure 17.16:

Figure 17.16 Accounts Receivable account: complete

General Ledger Accounts Receivable (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	12 000	July	Bank /	82 290
	Sales / GST Clearing	88 000		Discount expense	400
				Sales returns / GST Clearing	1 320
				Allowance for doubtful debts / GST Clearing	990
			31	Balance	15 000
		100 000			100 000
Aug. 1	Balance	15 000			

Amounts are known for all of the entries on the debit side, so this side can be completed first by calculating the total debits (\$100 000). For the account to balance (which it must, always), the credit side must also equal \$100 000, and in order to make the credit entries add to this total, **Receipts from Accounts Receivable** must be \$82 290, which can now be reported in the Budgeted Cash Flow Statement.

The same approach could be used to reconstruct other ledger accounts, such as Accounts Payable which is shown in Figure 17.17:

Study tip

This account is almost the opposite of Accounts Receivable, but it has no bad debts (Allowance for doubtful debts)

Figure 17.17 Accounts Payable template

General Ledger Accounts Payable (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
	Bank /		Start	Balance	
	Discount revenue			Inventory / GST Clearing	
	Inventory / GST Clearing				
End	Balance				
			End	Balance	

The Inventory / GST Clearing entry on the **credit side** is **credit purchases**; the same entry on the debit side is **purchase returns**.

Figure 17.18 shows the template for the Inventory account:

Figure 17.18 Inventory template

General Ledger Inventory (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Start	Balance			Cost of Sales ⁴	
	Accounts Payable ¹			Accounts Payable ⁵	
	Bank ²			Advertising	
	Cost of Sales ³			Drawings	
				Inventory write-down	
	Inventory gain *			Inventory loss *	
			End	Balance	
End	Balance				

* Inventory loss or inventory gain will be recorded, but not both

Given the number of entries in the Inventory account, it is worth clarifying a few:

Debit side	Credit side
1. Credit purchases	4. Sales – all types (cost price)
2. Cash purchases	5. Purchase returns
3. Sales returns (cost price)	

An actual Inventory account may have any number of each of these entries (except Inventory loss or gain, which will be recorded as one or the other but not both).

Further, although Cost of Sales may come from three different types of sale, it would only be reported as a single figure in the Budgeted Income Statement, and hence may in some cases be provided as only one figure. Note also the links between the Accounts Payable and Inventory accounts relating to credit purchases and purchase returns.

Figure 17.19 shows the template for the GST Clearing account:

Figure 17.19 GST Clearing template

General Ledger GST Clearing (A/L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
	Bank ¹		Start	Balance	
	Bank ²			Bank ⁶	
	Accounts Payable ³			Accounts Receivable ⁷	
	Accounts Receivable ⁴			Accounts Payable ⁸	
	Accounts Receivable ⁵				
End	Balance				
			End	Balance	

The entries in the GST Clearing account are:

Debit side	Credit side
1. GST settlement	6. GST on cash sales
2. GST on cash purchases	7. GST on credit sales
3. GST on credit purchases	8. GST on purchase returns
4. GST on sales returns	
5. GST on bad debt written off	

Study tip

If only two of the big four figures are known, there may still be enough information to reconstruct a related account (for example, Inventory and Accounts Payable are linked), which may allow for the calculation of the third figure and therefore the reconstruction of the original account.

This example assumes a credit balance (GST liability) to begin with, so a GST settlement is also likely: in the case of a debit balance (GST asset), a GST refund would be expected (on the credit side).

In terms of the Budgeted Cash Flow Statement, only the three bank entries – **GST settlement** (or **GST refund**), **GST on cash purchases** and **GST on cash sales** – would be reported.

The template for the Capital account is shown in Figure 17.20:

Figure 17.20 Capital template

General Ledger Capital (Oe)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
	Drawings		Start	Balance	
	Profit and Loss Summary			Bank	
				Asset	
				Profit and Loss Summary	
End	Balance				
			End	Balance	

The cross-reference 'Profit and Loss Summary' refers to the Net Profit or Loss for the period, so only one of these entries will appear at any one time. If a **profit** is generated, it will appear on the **credit** side of the Capital account; if a **loss** is incurred, it will appear on the **debit** side.

Finally, the template for the Disposal of Non-current asset account (in this case, Vehicle) would appear as shown in Figure 17.21:

Figure 17.21 Disposal of non-current asset template

General Ledger Disposal of Vehicle					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
	Vehicle			Acc. dep. of Vehicle	
	Profit on Disposal of Vehicle			Bank (or NCA)	
				Loss on Disposal of Vehicle	

Where the asset is sold for cash, the second credit entry will be **Bank**, but if the asset is traded in, the cross-reference will be to the **Non-current asset** account itself, and no cash flow will occur. Also, the account will show *either* a **Profit on Disposal of Non-current asset** or a **Loss on Disposal of Non-current asset**, but not both.

This list is by no means exhaustive; any ledger account could be reconstructed to calculate a missing figure, for any of the three general-purpose budgets. The only restriction is the need to know three of the 'big four' pieces of information.

For Accounts Receivable and Accounts Payable, this means at least three of the opening balance, the closing balance, credit sales (for Accounts Receivable) or credit purchases (for Accounts Payable), and receipts from Accounts Receivable or payments to Accounts Payable. For Inventory, it means three of the opening balance, the closing balance, Cost of Sales and purchases (cash or credit).



Review questions 17.7

- 1 **State** the purpose of reconstructing a ledger account.
- 2 **List** the three steps involved in reconstructing a ledger account.
- 3 **Explain** when it would be appropriate to reconstruct the Accounts Receivable account.
- 4 **Show** the templates for the following ledger accounts:
 - Accounts Receivable
 - Accounts Payable
 - Inventory
 - GST Clearing
 - Capital
 - Disposal of Non-current asset.



17.8 Variance reports: cash and profit

variance report

an Accounting report that compares actual and budgeted figures, highlighting variances so that problems can be identified and corrective action taken

variance

the difference between actual and budgeted figures, usually described as favourable or unfavourable

Cash Flow Statement Variance Report

an Accounting report that compares actual and budgeted cash flows, highlighting variances as favourable or unfavourable depending on their effect on budgeted cash on hand

This chapter has noted a number of times the benefit of budgets in terms of providing a benchmark for the assessment of actual performance. By comparing actual and budgeted figures, significant differences (and problems in particular) can be identified, allowing the owner to make decisions to improve the firm's performance. This comparison is facilitated by the preparation of a **variance report**, an Accounting report that compares actual and budgeted figures, highlighting **variances** (differences between the actual and budgeted amounts) so that problems can be identified and corrected. It is prepared once the actual figures are available, but before the next budget.

This course concentrates on two variance reports:

- Cash Flow Statement Variance Report
- Income Statement Variance Report.

Cash Flow Statement Variance Report

A **Cash Flow Statement Variance Report** compares actual and budgeted cash flows. In appearance, it is very similar to a Budgeted Cash Flow Statement, but it has additional columns for actual figures and the calculation of the variance.

Figure 17.22 shows the Cash Flow Statement Variance Report for Denzel Washing Machines for March 2031.

Figure 17.22 Cash Flow Statement Variance Report

DENZEL WASHING MACHINES Cash Flow Statement Variance Report for March 2031				
	Budget	Actual	Variance	F/U
CASH FLOWS FROM OPERATING ACTIVITIES				
Cash sales	24 000	29 000	5 000	F
Receipts from Accounts Receivable	11 000	8 000	3 000	U
GST received	2 400	2 900	500	F
Total Operating inflows	37 400	39 900	2 500	F
Payments to Accounts Payable	(32 000)	(30 000)	2 000	F
Wages	(8 000)	(8 600)	600	U
Advertising	(1 300)	(1 100)	200	F
Prepaid rent expense	(9 000)	(9 000)	–	–
GST paid	(1 530)	(1 610)	80	U
Total Operating outflows	(51 830)	(50 310)	1 520	F
Net Cash Flows from Operating Activities	(14 430)	(10 410)	4 020	F
CASH FLOWS FROM INVESTING ACTIVITIES				
Office equipment	(5 000)	(5 000)	–	–
Net Cash Flows from Investing Activities	(5 000)	(5 000)	–	–
CASH FLOW FROM FINANCING ACTIVITIES				
Capital contribution	30 000	30 000	–	–
Loan – AXC Bank	10 000	11 000	1 000	F
Drawings	(1 000)	(1 200)	200	U
Net Cash Flows from Financing Activities	39 000	39 800	800	F
Net Increase (Decrease) in Cash Position	19 570	24 390	4 820	F
add Bank Balance at start	Nil	Nil	–	–
Bank Balance at end	19 570	24 390	4 820	F

A variance is simply the difference between the budgeted figure and the actual figure. Whether it is favourable or unfavourable depends, in the Cash Flow Statement Variance Report, on its *effect on budgeted cash*. A variance is **favourable (F)** if it means cash will be **higher** than expected in the budget; a variance is **unfavourable (U)** if it means cash will be **lower** than expected in the budget.

In this example, the variance in the Loan – AXC Bank is reported as **favourable** because cash will increase more than expected. The fact that the liabilities will also increase does not affect its classification in the Cash Flow Statement Variance Report. Similarly, Payments to Accounts Payable is classified as **favourable**, even though it could mean the balance owed to Accounts Payable is higher than expected.

Overall, the cash variance is **favourable** by \$4 820, largely because Net Cash Flows from Operating Activities was **favourable** by \$4 020, with this the result of a **favourable** variance in both cash inflows by \$2 500 and cash outflows by \$1 520. That is, the firm generated more cash than expected from Operating activities and had lower cash outflows, and this translated into a higher bank balance than budgeted.

Study tip

Variance reports are also known as 'performance reports', as they assess the firm's performance in meeting its budget.

Study tip

If there is no variance at all, then it is neither favourable nor unfavourable.

Uses of the Cash Flow Statement Variance Report

It is possible that the variances revealed in the Cash Flow Statement Variance Report are caused simply by poor budgeting. However, this does not mean the report is useless; it should be used in **planning** the next budget so that it is more accurate.

Assuming the variances are not caused by poor estimates, then the Cash Flow Statement Variance Report is a valuable **aid to decision-making**. The **unfavourable** variances should be investigated and their cause identified. This will allow the owner to take corrective action.

In this example, Denzel Washing Machines may be concerned by the **unfavourable** variance in Receipts from Accounts Receivable: does it indicate a decline in credit sales, poor collection policies or something else?

When using the report in this way, it is also important to consider the links between items. For instance, an **unfavourable** variance in Advertising may actually generate a **favourable** variance in Cash sales, in turn leading to an **unfavourable** variance in Wages.

Income Statement Variance Report

In the same way that a Cash Flow Statement Variance Report compares actual and budgeted cash flows, an **Income Statement Variance Report** can be prepared to compare actual and budgeted revenues and expenses.

Variances in this report are classified as favourable or unfavourable depending on their *effect on budgeted profit*. In the Income Statement Variance Report, a variance is **favourable (F)** if it means profit will be **higher** than expected in the budget; a variance is **unfavourable (U)** if it means profit will be **lower** than expected in the budget.

Figure 17.23 shows the Income Statement Variance Report for Denzel Washing Machines for March 2031:

Income Statement Variance Report

an Accounting report that compares actual and budgeted revenues and expenses, highlighting variances as favourable or unfavourable depending on their effect on budgeted profit

Figure 17.23 Income Statement Variance Report

DENZEL WASHING MACHINES Income Statement Variance Report for March 2031				
	Budget	Actual	Variance	F/U
Revenue				
Cash sales	24 000	29 000	5 000	F
Credit sales	16 000	14 000	2 000	U
Less Cost of Goods Sold				
Cost of Sales	20 000	19 000	1 000	F
Gross Profit	20 000	24 000	4 000	F
less Inventory loss	300	900	600	U
Adjusted Gross Profit	19 700	23 100	3 400	F
less Other expenses				
Wages	8 000	8 600	600	U
Advertising	1 300	1 100	200	F
Depreciation of Office equipment	100	100	–	–
Rent expense	1 500	1 500	–	–
Net Profit	8 800	11 800	3 000	F

In this case, there is a \$3 000 **favourable** variance in Net Profit, largely because of a \$5 000 **favourable** variance in Cash sales. Even with an overall increase in sales, Cost of Sales was **favourably** lower than expected, perhaps indicating lower cost prices for suppliers (or a higher selling price charged to customers). The **unfavourable** variance in Wages makes sense given the increase in sales, particularly if it was due to an increase in sales volume.

Uses of the Income Statement Variance Report

The Income Statement Variance Report can be used for exactly the same purposes as the Cash Flow Statement Variance Report: as a **planning** document and to **aid decision-making**.

The preceding report identifies that Sales overall has increased, so this may explain the **unfavourable** variances in Wages and even Inventory loss. However, the **unfavourable** variance in Inventory loss is worth investigating as it may be caused by poor inventory management procedures, which may need to be improved. Without the budget providing the benchmark and the variance report making the comparison, this problem may not have been identified.



Review questions 17.8

- 1 **State** what information is shown in a:
 - Cash Flow Statement Variance Report
 - Income Statement Variance Report.
- 2 **Define** the term 'variance'.
- 3 **Explain** when a variance would be considered to be favourable if reported in the:
 - Cash Flow Statement Variance Report
 - Income Statement Variance Report.
- 4 **Explain** how a variance report can be used to assist planning.
- 5 **Explain** how a variance report can be used to assist decision-making.



Where have we been?

- Budgeting is the process of preparing reports that estimate or predict the financial consequences of likely future transactions.
- Budgets assist planning by predicting what is likely to occur in the future and aid decision-making by providing a benchmark or yardstick (a standard) against which actual performance can be measured.
- Budgeted cash and budgeted profit are not necessarily the same.
- Budgeted figures can be calculated by using historical data or by reconstructing ledger accounts.
- Variance reports compare actual and budgeted figures, highlighting variances so that problems can be identified and corrected.
- A variance is the difference between the budgeted figure and the actual figure, and it is classified as favourable or unfavourable depending on its effect on bank or profit.

Exercises

Please note: asterisks indicate that an answer for that question is available in the Selected Answers section at the end of this book.



Exercise 17.1

Budgeted Cash Flow Statement

On 1 July 2031 Top Hats had \$2 700 in its bank account.

It has provided the following list of expected transactions for July 2031:

- Cash sales are expected to be \$12 000 (plus GST). Credit sales are expected to be \$5 000 (plus GST), but only 60% is expected to be collected in July 2031.
- All inventory is sold at a 50% mark-up.
- Cash purchases of inventory will be \$4 000 (plus GST).
- Drawings will consist of \$1 200 cash and \$300 worth of inventory.
- The following expenses will be paid:
 - Advertising \$2 100 (plus GST)
 - Wages \$3 600
 - Interest expense \$230
- \$400 wages will be owing at the end of July 2031.
- Yearly rent will be paid on 1 July 2031, costing \$8 400 (plus GST).
- The monthly loan repayment of \$1 600 will be made on 14 July 2031.
- New shop fittings worth \$3 850 (including GST) will be purchased for cash from Fitts Best.

Required

- a. **Calculate** budgeted GST paid for July 2031.
- *b. **Prepare** a Budgeted Cash Flow Statement for Top Hats for July 2031.
- c. **Suggest** two actions the owner may take to plan for the outcome predicted in the Budgeted Cash Flow Statement.
- d. **Prepare** an extract of the Budgeted Cash Flow Statements for Top Hats for July 2031 to **model** the effect on Operating cash inflows if:
 - Budgeted cash sales plus GST was \$5 000 higher
 - Budgeted credit sales plus GST was \$5 000 higher.
- e. Referring to your answer to part d, **explain** whether Top Hats should be aiming to increase its cash sales or credit sales to improve its cash position.



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Exercise 17.2

Budgeted Cash Flow Statement: consecutive periods

Lockhardt Locks has provided the following information regarding its expected activities for January to March 2031:

- As at 1 January 2031, the business had \$3 400 in the bank.
- Sales are made on cash-only terms and are budgeted to be \$26 000 in January, \$27 000 in February and \$25 000 in March. GST will also be received on these amounts.
- Inventory is purchased on credit, with Accounts Payable paid the month following purchase. Credit purchases for December 2030 were \$12 000 but are expected to rise to \$13 000 in January, and \$13 500 in February and March. GST will also be owing on these amounts.



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- The following expenses will be paid each month:
 - Wages \$4 000
 - Advertising \$1 300 (plus GST)
 - Interest expense \$150
- Rent for the next six months will be paid during January \$9 900 (inclusive of GST).
- In January 2031, the business will sell an old vehicle for \$1 900 (plus GST) cash, and in February 2031 will pay cash for a new vehicle, which will cost \$21 000 plus GST.
- A GST settlement of \$1 600 is due in January 2031.
- Monthly cash drawings will be \$2 000.
- A repayment on the principal of a loan is due on 21 January 2031 \$1 500.
- The owner plans to contribute \$15 000 cash and some office equipment worth \$4 200 in March 2031.

Required

- Calculate** budgeted GST paid for January, February and March 2031.
- *Prepare** a Budgeted Cash Flow Statement for Lockhardt Locks for January, February and March 2031.
- Suggest** two actions the owner might take to address any problems revealed by your answer to part **b**.
- Explain** one benefit of preparing a Budgeted Cash Flow Statement for consecutive periods.



Exercise 17.3

Calculating receipts from Accounts Receivable

Bats 'n' Balls has provided the following budgeted information relating to its credit sales during 2031:

Month	Credit sales \$
October (actual)	10 000
November (actual)	11 000
December (budgeted)	12 000

Additional information:

- GST will also be charged on these amounts.
- It is expected that 70% of Accounts Receivable will pay in the month following the sale, while the remaining 30% will pay in the second month.

Required

- Suggest** one reason for the trend in sales from October to December 2031.
- Calculate** budgeted receipts from Accounts Receivable for December 2031.
- Referring to your answer to part **b**, **explain** how the preparation of a Budgeted Cash Flow Statement can assist planning.
- Referring to the information provided, **explain** one reason why budgeted Net Profit and budgeted net increase (decrease) in cash position are likely to be different for December 2031.



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**Exercise 17.4****Calculating cash flows from sales**

Jazzy Jackets has provided the following information to aid in the preparation of its Budgeted Cash Flow Statement for June 2031:

Month	Credit sales \$	Cash sales \$
April	35 000	27 000
May	30 000	32 000
June	20 000	26 000

Additional information:

- The amounts above do **not** include GST.
- It is expected that 50% of Accounts Receivable will pay in the month of sale, 30% of Accounts Receivable will pay in the month following the sale, and 15% will pay in the second month following the sale. The remaining 5% are expected to be written off.

Required

- Calculate** budgeted receipts from Accounts Receivable for June 2031.
- Prepare** an extract of the Budgeted Cash Flow Statement for Jazzy Jackets that shows Operating cash inflows for June 2031.

The owner is concerned about bad debts. The Accountant has advised that the business should offer a settlement discount of 5% to those who pay in the month of sale, but the owner thinks this will make no difference as bad debts are already 5%.

- Explain** why the discount expense and bad debts written off would be different amounts for June 2031.
- Model** the effect on receipts from Accounts Receivable for June 2031 if the Accountant's advice is implemented and all amounts owing in the second month following the sale are received (and no debts are written off).
- Assuming the budget estimates are correct, **discuss** whether the Accountant's advice should be implemented.



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**Exercise 17.5****Budgeted Cash Flow Statement**

On 1 January 2031 Betty's Bags commenced operations. Projected purchases and sales for the first three months are:

Month	Credit purchases \$	Credit sales \$	Cash sales \$
January	12 000	20 000	30 000
February	13 000	25 000	34 000
March	14 000	28 000	36 000

Additional information:

- The amounts above do **not** include GST.
- Betty's Bags allows a 5% discount if Accounts Receivable pay within the month that the sale occurred. It is expected that 40% of the sales will be collected within the discount period, 35% by the end of the month after purchase and 20% in the following month, and that 5% will be uncollectable.
- Of credit purchases, 50% are paid in the month of purchase, with the remainder paid in the following month.



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- Monthly expenses include Advertising of \$2 500 (plus GST), Wages of \$1 800 and Depreciation on Equipment of \$1 000. No prepaid or accrued expenses are expected.
- Cash drawings will be \$3 000 per month.
- Betty is concerned that there is no provision for extra staff to cope with rising sales.

Required

- Calculate** budgeted receipts from Accounts Receivable for March 2031.
- Calculate** budgeted payments to Accounts Payable for March 2031.
- Prepare** an extract of the Budgeted Cash Flow Statement for Betty's Bags that shows the Operating activities for March 2031.
- Referring to your answer to part **c**, **explain** your treatment of Depreciation of Equipment.
- Explain** how cash drawings would be reported in the Budgeted Cash Flow Statement.
- Prepare** extracts of the Budgeted Cash Flow Statement for Betty's Bags for March 2031 to **model** the effect on Operating activities if the business decided to set Wages to:
 - 10% of cash sales
 - 20% of cash sales.
- Referring to your answer to part **f**, **explain** whether Betty's Bags can afford to increase staff to cope with increasing sales.



Exercise 17.6 Budgeted reports

Dana's Detergents will begin trading operations on 1 May 2031 and has provided the following estimates for its first month of operations:

- The owner will make a capital contribution of \$20 000 to commence operations.
- Shelving worth \$6 000 (plus GST) will be purchased using cash.
- Cash sales are estimated to be \$15 000 (plus GST).
- Credit sales are estimated to be \$13 200 (including GST). Accounts Receivable owing at the end of May 2031 is expected to be \$3 500.
- All inventory will be purchased on credit. Purchases for May 2031 are expected to be \$40 000 (plus GST). At the end of May 2031, it is anticipated that \$12 000 will be owed to Accounts Payable.
- All sales will be marked up 50%, and on the basis of industry averages, Inventory loss is expected to be \$500.
- Six months' advertising will be paid in advance on 1 May 2031, at a cost of \$1 200 plus GST. There will be no other prepayments or accruals.
- The following expenses will be incurred during May 2031:

– Wages	\$2 000
– Depreciation of Shelving	\$50
– Rent expense	\$1 000 (plus GST)
- On 31 May 2031, a loan for \$35 000 will be received from ZNA Bank. The loan will be used to purchase a van in June 2031. Each month, \$500 will be paid off the principal, starting on 30 June 2031.
- Cash drawings will be \$1 900. Drawings of inventory is expected to be \$300.



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Required

- *a. **Prepare** a Budgeted Cash Flow Statement for Dana's Detergents for May 2031.
- *b. **Prepare** a Budgeted Income Statement for Dana's Detergents for May 2031.
- c. **Explain** two reasons why the budgeted net increase in cash position is much larger than the budgeted Net Profit for May 2031.
- d. **Show** how the Inventory and GST Clearing accounts would appear in the General Ledger as at 31 May 2031. Transaction dates are only required where appropriate.
- *e. **Prepare** a Budgeted Balance Sheet for Dana's Detergents as at 31 May 2031.
- f. **Prepare** Budgeted Income Statements for Dana's Detergents for May 2031 to **model** the effect on budgeted Net Profit if sales were marked up:
 - 100%
 - 150%.
- g. **Explain** one reason why the modelling in your answer to part f may be inaccurate.

**Exercise 17.7****Budgeted reports**

On 30 June 2031, the Balance Sheet of Jacuzzi Joint showed the following:



JACUZZI JOINT Balance Sheet as at 30 June 2031					
	\$	\$		\$	\$
Current Assets			Current Liabilities		
Bank	4 000		Accounts Payable	9 900	
Inventory	28 000		GST Clearing	950	
Accounts Receivable	7 480		Accrued interest expense	300	11 150
less Allowance for doubtful debts	(500)		Non-Current Liabilities		
Prepaid rent expense	6 000	44 980	Loan – APS Finance		30 000
Non-Current Assets			Owner's equity		
Office equipment	24 000		Capital – Jacqui		20 630
less Accumulated depreciation	(7 200)	16 800			
Total Assets		61 780	Total Equities		61 780

The owner has provided the following information to assist in the preparation of budgeted reports for July 2031:

Month	Credit purchases \$	Credit sales \$	Cash sales \$
June	9 000	17 000	19 000
July	11 000	18 000	22 000

These amounts do **not** include GST.

Additional information:

- All inventory is marked up 100%.
- The owner expects an inventory loss of \$300 for July 2031.
- Credit sales are received 60% in the month of the sale and 40% in the month after the sale.

- All purchases are made on credit. Amounts owing to Accounts Payable are paid in the month following purchase to earn a 5% discount.
- Six months' rent was prepaid on 1 May 2031.
- Wages paid during July 2031 will be \$7 500, but \$800 for wages is expected to be owing at the end of July 2031.
- 4% of Net credit sales for July 2031 are expected to be doubtful of collection.
- Depreciation of Office equipment for July 2031 will be \$300.
- Electricity expense will be \$200 plus GST. This amount will be paid in full during July 2031.
- In July 2031, \$450 will be paid to cover the interest expense for May, June and July 2031.
- During July 2031, new office equipment costing \$13 200 (including GST) will be purchased for cash.
- On 31 July 2031, the owner plans to contribute \$10 000 cash and her own vehicle worth \$23 000. Drawings of cash by the owner will be \$3 100.
- A GST settlement will be made in July 2031.
- The Loan – APS Finance is an interest-only loan due in full in October 2033.



Required

- Calculate** budgeted receipts from Accounts Receivable for July 2031.
- Calculate** budgeted payments to Accounts Payable for July 2031.
- *Prepare** a Budgeted Cash Flow Statement for Jacuzzi Joint for July 2031.
- Calculate** budgeted bad debts expense for July 2031.
- *Prepare** a Budgeted Income Statement for Jacuzzi Joint for July 2031.
- Explain** two reasons why the Net Cash Flows from Operating Activities is budgeted to be greater than the Net Profit for July 2031.
- Show** how the Inventory and GST Clearing accounts would appear in the General Ledger as at 31 July 2031. Transaction dates are **not** required.
- *Prepare** a Budgeted Balance Sheet for Jacuzzi Joint as at 31 July 2031.



Exercise 17.8

Account reconstruction

Moving Boxes sells cardboard boxes for people who are moving house and has provided the following information relating to their Accounts Receivable account:

Balance as at 1 July 2030	\$50 000	
Budgeted balance as at 30 June 2031	\$40 000	
Budgeted credit sales for the year ended 30 June 2031	\$110 000	(including GST)
Budgeted discount expense	\$4 500	

Required

- For each item above, **identify** the budgeted report in which the item will appear.
- Reconstruct** the Accounts Receivable account to determine budgeted receipts from Accounts Receivable for the year ended 30 June 2031.
- Explain** the importance of budgeted sales in the budgeting process.



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**Exercise 17.9****Account reconstruction**

Bully Hides sells leather products and has provided the following information relating to its expected transactions for 2031:

Account balances as at 31 December 2030:

- Accounts Receivable \$35 000
- Accounts Payable \$13 000

Budgeted balances as at 31 December 2031:

- Accounts Receivable Increase of \$10 000 from start of year
- Accounts Payable \$10 500

From the Budgeted Income Statement for 2031:

- Cash sales \$70 000
- Credit sales \$60 000
- Sales returns 5% of credit sales
- Discount revenue \$1 500
- Bad debts expense 10% of Net credit sales
- Discount expense \$2 300

Other information for 2031:

- Cash purchases * \$30 000
- Credit purchases * \$45 000
- Bad debts written off * \$4 000

*Figures do **not** include GST.



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**Required**

- Reconstruct** the Accounts Receivable account to determine budgeted receipts from Accounts Receivable for 2031.
- Prepare** an extract from the Budgeted Cash Flow Statement for Bully Hides for 2031 that shows Operating cash inflows.
- Reconstruct** the Accounts Payable account to determine budgeted payments to Accounts Payable for 2031.

**Exercise 17.10****Account reconstruction**

Tony's Tyre Emporium has provided the following information relating to its expected transactions for the year ended 30 June 2031:

Actual balances as at 1 July 2030:

- Inventory \$31 000
- Accounts Payable \$16 000

From the Budgeted Income Statement for the year ended 30 June 2031:

- Sales \$70 000
- Sales returns \$1 200
- Inventory gain \$4 000
- Discount revenue \$2 000

Expected balances as at 30 June 2031:

- Inventory \$26 000
- Accounts Payable \$15 000

Other information:

- Cash purchases of inventory \$10 000 (plus GST)
- Drawings (\$12 000 cash; \$3 000 inventory) \$15 000
- Sales mark-up 100%



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Required

- a. **Reconstruct** the Inventory account to determine budgeted credit purchases for the year ended 30 June 2031.
- b. **Reconstruct** the Accounts Payable account to determine budgeted payments to Accounts Payable for the year ended 30 June 2031.

**Exercise 17.11****Cash Flow Statement Variance Report**

Simply Stunning sells hair care products to hairdressers in Melbourne and has provided the following Cash Flow Statement Variance Report for the year ended 30 June 2031:



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SIMPLY STUNNING				
Cash Flow Statement Variance Report for the year ended 30 June 2031				
	Budgeted	Actual	Variance	Fav./Unfav.
CASH FLOWS FROM OPERATING ACTIVITIES				
Receipts from Accounts Receivable	99 200	89 200		
Cash sales	85 000	94 000		
GST received	9 000	9 700		
Payments to Accounts Payable	(115 000)	(136 000)		
Prepaid rent expense	(12 000)	(15 000)		
GST paid	(1 440)	(1 590)		
Wages	(30 000)	(26 000)		
Advertising	(2 400)	(900)		
Interest expense	(2 700)	(3 100)		
GST settlement	(3 700)	(4 600)		
Net Cash Flows from Operating Activities	25 960	5 710		
CASH FLOWS FROM INVESTING ACTIVITIES				
Proceeds on sale of equipment	5 000	3 000		
Shelving	–	(12 000)		
Net Cash Flows from Investing Activities	5 000	(9 000)		
CASH FLOW FROM FINANCING ACTIVITIES				
Capital contribution	–	20 000		
Loan	(5 000)	–		
Drawings	(36 000)	(40 000)		
Net Cash Flows from Financing Activities	(41 000)	(20 000)		
Net Increase (Decrease) in Cash Position	(10 040)	(23 290)		
Add Bank Balance at start	8 500	8 500	–	–
Bank Balance at end	(1 540)	(14 790)		

The business had organised an overdraft limit with the bank of \$6 000.

Required

- Complete** the Cash Flow Statement Variance Report for Simply Stunning for the year ended 30 June 2031.
- State** whether the variance in payments to Accounts Payable is favourable or unfavourable. **Justify** your answer.
- Suggest** one possible reason for the capital contribution.
- Explain** the effect on the actual closing bank balance of the variance in Investing activities.
- Assess** the cash performance of Simply Stunning for the year ended 30 June 2031.
- Identify** two assets that will differ as at 30 June 2031 as a consequence of the variances in the Cash Flow Statement Variance Report. **Justify** your answer.

**Exercise 17.12****Cash Flow Statement Variance Report**

Bright Lights has provided the following partially completed Cash Flow Statement Variance Report for the year ended 30 June 2031:



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BRIGHT LIGHTS				
Cash Flow Statement Variance Report (extract) for the year ended 30 June 2031				
	Budgeted	Actual	Variance	Fav./ Unfav.
CASH FLOWS FROM OPERATING ACTIVITIES				
Receipts from Accounts Receivable	100 000	105 000		
Payments to Accounts Payable	(45 000)		5 000	F
Interest expense		(800)	300	U
GST paid	(6 000)	(4 500)		
Prepaid rent expense	(12 000)			
CASH FLOWS FROM INVESTING ACTIVITIES				
Sale of Shelving		5 000	1 000	U
Van	(17 000)	(23 000)		
CASH FLOWS FROM FINANCING ACTIVITIES				
Loan	7 500		2 500	F
Drawings	(25 000)	(15 000)		

Additional information:

- The \$12 000 budgeted payment for Prepaid rent expense failed to take into account \$300 in Prepaid rent expense at 1 July 2030 and Prepaid rent expense of \$500 at 30 June 2031.
- The owner has argued that the Loan variance is unfavourable because it increases the firm's liabilities.



Required

- Calculate** the actual payment for prepaid rent expense for the year ending 30 June 2031.
- Complete** the Cash Flow Statement Variance Report (extract) for Bright Lights for the year ended 30 June 2031.
- Explain** why the Loan variance is favourable.
- Given that credit sales decreased, **suggest** one possible reason for the variance in Receipts from Accounts Receivable.
- Explain** one possible effect of Financing activities on the firm's actual Net Profit for the year ended 30 June 2031.
- Explain** one benefit of preparing a Cash Flow Statement Variance Report.

**Exercise 17.13****Income Statement Variance Report**

Toot and Twang sells musical instruments from a shop in Melton, and has provided the following Income Statement Variance Report for the year ended 30 June 2031:



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TOOT AND TWANG Income Statement Variance Report for the year ended 30 June 2031				
	Budgeted	Actual	Variance	Fav./Unfav.
Revenue				
Sales	120 000	110 000		
Less Cost of Goods Sold				
Cost of Sales	70 000	55 000		
Gross Profit	50 000	55 000		
Add Inventory gain (loss)	1 500	(4 200)		
Adjusted Gross Profit	51 500	50 800		
Add Other revenue				
Profit on Disposal of Vehicle	1 500	6 500		
	53 000	57 300		
Less Other expenses				
Wages	18 000	19 000		
Rent	12 000	14 000		
Depreciation of Vehicles	2 300	1 600		
Interest expense	1 400	1 800		
Net Profit/(Loss)	19 300	20 900		

Required

- Explain** the importance of variance analysis in the budgeting process.
- Complete** the Income Statement Variance Report for Toot and Twang for the year ended 30 June 2031.
- Explain** whether the variance in Cost of Sales is favourable or unfavourable.
- Suggest** one possible reason for the variance in Depreciation of Vehicles.
- Explain** why the owner should be concerned about the firm's profit performance when compared with the budget.





Exercise 17.14

Income Statement Variance Report

Blades, which sells kitchen knives and cutting utensils, has provided the following Income Statement Variance Report for the year ended 30 June 2031:



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BLADES Income Statement Variance Report for the year ended 30 June 2031				
	Budgeted	Actual	Variance	Fav./Unfav.
Revenue				
Sales	105 000	90 000		
Less Sales returns	8 500		4 500	F
	96 500			
Less Cost of Goods Sold				
Cost of Sales	48 000	54 000		
Cartage in	3 000	1 000		
Total Cost of Goods Sold				
Gross Profit	45 500			
Less Inventory loss	1 800	2 300		
Adjusted Gross Profit	43 700			
Less Other expenses				
Wages	28 000		5000	U
Rent	15 000	18 000		
Depreciation of Equipment	1 400	2 200		
Interest		800	300	F
Net Profit/(Loss)				

The business had an overdraft of \$4 000 as at 1 July 2030.

Required

- Complete** the Income Statement Variance Report for Blades for the year ended 30 June 2031.
- Suggest** two possible reasons for the variance in Sales returns.
- Suggest** one possible reason for the variance in Interest expense.
- Explain** the implications of the variance in Gross Profit.
- Assess** the profit performance of Blades for the year ended 30 June 2031.





Exercise 17.15

Account reconstruction and budgeted reports

Seth Bayes is the proprietor of Bayes Surfboards, which sells surf gear on the Victorian west coast. He has provided the following information to assist in the preparation of budgets for 2031:



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BAYES SURFBOARDS			
Assets and equities as at 31 December 2030			
Assets	\$	Equities	\$
Accounts Receivable	19 100	Bank	5 000
Less Allowance for doubtful debts	(1 500)	Accrued wages	700
GST Clearing	3 000	Accounts Payable	41 800
Inventory	62 400	Capital – Bayes	69 500
Shop fittings	52 000		
Less Accumulated depreciation	(18 000)		
Total Assets	117 000	Total Equities	117 000

Expected transactions for 2031:

- Credit sales are expected to be \$300 000 and will include \$20 000 for December 2031, which will remain owing. GST will be charged on these amounts.
- Accounts Receivable usually pay in the month following sale to take advantage of a 2% settlement discount.
- Credit purchases are budgeted to be \$140 000 plus GST, and \$37 400 is expected to be owing to Accounts Payable as at 31 December 2031.
- All inventory is sold at a 100% mark-up.
- Other estimates for 2031 include:
 - Occupancy expenses \$47 000 (plus GST)
 - Office expenses \$39 000 (plus GST)
 - Wages expense \$35 000
 - Depreciation of Shop fittings \$3 400
 - Cash drawings \$12 000
 - Inventory loss \$2 500
- A GST refund is due from the ATO in 2031.
- A new advertising contract will be signed and paid on 30 September 2031, with the payment of \$1 980 (including GST) covering 12 months starting on 1 October 2031.
- Early in December 2031 Seth will borrow \$10 000 from AX Bank to finance the purchase of new shop fittings early in 2032. The loan will be repaid in full in December 2032, but interest of \$600 due on 31 December 2031 will not be paid until the next working day on 1 January 2032.
- In November 2031, some old shop fittings will be sold to a local supermarket at a profit of \$300. The shop fittings were originally worth \$4 800 but by the sale date will have accumulated depreciation of \$4 400.
- Doubtful debts are expected to be 1% of Net credit sales.
- Aside from the expected transactions there will be no other prepayments or accruals as at 31 December 2031.



Required

- a. **Calculate** the budgeted cash proceeds from the disposal of the shop fittings.
- b. **Calculate** budgeted receipts from Accounts Receivable for 2031.
- c. **Calculate** budgeted payments to Accounts Payable for 2031.
- d. **Calculate** budgeted GST paid for 2031.
- *e. **Prepare** a Budgeted Cash Flow Statement for Bayes Surfboards for 2031.
- f. **Explain** one advantage of preparing budgets more than once a year.
- g. **Show** how the Inventory and GST Clearing accounts would appear in the General Ledger as at 31 December 2031.
- *h. **Prepare** an extract of the Budgeted Balance Sheet of Bayes Surfboards as at 31 December 2031 that shows Current Assets and Current Liabilities. A full Balance Sheet is **not** required.
- i. **Explain** how a Budgeted Balance Sheet can be used to assist planning.

**Exercise 17.16****Account reconstruction and budgeted reports**

Poppy Marcel is the proprietor of Digital Masters, which sells digital cameras from a shop in Torquay. She has requested some assistance in preparing the budgets and has provided the following information:



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DIGITAL MASTERS Account balances as at 30 June 2030			
Debit	\$	Credit	\$
Accounts Receivable	18 000	Acc. depreciation – Shop fittings	21 600
Inventory	135 000	Accounts Payable	13 700
Prepaid photocopier rent	1 000	Accrued wages	1 300
Shop fittings	48 000	Allowance for doubtful debts	800
GST Clearing	3 400	Bank	38 400
		Capital – Marcel	129 600
Total debits	205 400	Total credits	205 400

Anticipated transactions for the year ended 30 June 2031:

- Cash sales are expected to be \$42 000 (plus GST) and credit sales are expected to be \$180 000 (plus GST). Accounts Receivable as at 30 June 2031 is expected to be \$19 000.
- All inventory is purchased on credit and sold at a 50% mark-up.
- Other estimates for the year include:
 - Purchases of inventory \$121 000 (plus GST)
 - Sales returns 5% of credit sales
 - Discount expense 2% of credit sales
 - Wages expense \$29 000
 - Depreciation of Shop fittings \$5 300
 - Cash drawings \$53 000
 - Inventory loss 1% of sales
 - Doubtful debts 1% of Net credit sales
- Poppy is currently renting a photocopier at \$550 including GST per month, payable 12 months in advance. Poppy has received notification that the rent will increase to \$660 (including GST) per month commencing with the next payment due on 1 September 2030.

- On 1 April 2031, the business will invest \$6 000 in a three-year term deposit. Interest is earned at 8% per annum, payable on 31 March each year.
- Estimated balances as at 30 June 2031 include:

– Inventory	\$106 780	
– Bank overdraft	\$27 620	
– GST Clearing	\$6 180	CR

Required

- Calculate** budgeted photocopier rent expense for the year ended 30 June 2031.
- Calculate** budgeted interest revenue for the year ended 30 June 2031.
- Calculate** budgeted bad debts expense for the year ended 30 June 2031.
- *d. Prepare** a Budgeted Income Statement for Digital Masters for the year ended 30 June 2031.
- e. Explain** how the preparation of a Budgeted Income Statement could assist with planning to achieve an improved Gross Profit.
- *f. Prepare** an extract of the Budgeted Balance Sheet of Digital Masters as at 30 June 2031 that shows current and non-current assets. A full Balance Sheet is **not** required.

Poppy has received advice that a \$3 000 advertising campaign would mean sales would be 5% higher than originally budgeted.

- *g. Prepare** a Budgeted Income Statement for Digital Masters for the year ended 30 June 2031 to **model** the effect of the advertising campaign.





Chapter 18

Evaluating performance: profitability

Learning intentions

After completing this chapter, you should be able to:

- **define** 'profitability', and **distinguish** between profit and profitability
- **analyse** profitability using trends, variances, benchmarks and profitability indicators
- **calculate** and **explain** various profitability indicators
- **explain** the relationships between various profitability indicators
- **identify** the limitations of using financial information
- **distinguish** between financial and non-financial information
- **analyse** and **evaluate** profitability using financial and non-financial information
- **suggest** strategies to improve profitability
- **model** the effects of various strategies on profitability
- **discuss** ethical considerations in business decision-making.

Key terms

After completing this chapter, you should be familiar with the following terms:

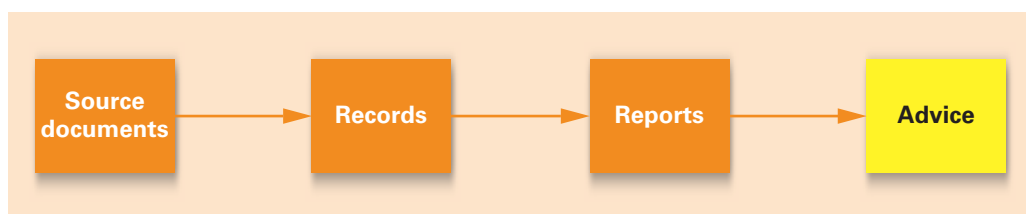
- analysing
- interpreting
- efficiency
- stability
- trend
- horizontal analysis
- benchmark
- profitability indicators
- Return on Owner's Investment (ROI)
- Debt Ratio
- Return on Assets (ROA)
- Asset Turnover (ATO)
- expense control
- vertical analysis.

Course advice:

In VCE Accounting students are not required to calculate financial indicators in the examination. However, calculations are included in this text as an essential mechanism for understanding the information these indicators present.



18.1 Analysis and interpretation of profitability



analysing

examining the financial reports in detail to identify changes or differences in performance

interpreting

examining the relationships between the items in the financial reports in order to explain the cause and effect of changes or differences in performance

efficiency

the ability of the business to manage its assets and liabilities

stability

the ability of the business to meet its debts and continue its operations in the long term

Large parts of this text have been devoted to the first three phases of the Accounting process: gathering *source documents*, *recording* the data so it is classified and summarised, and *reporting* the information that is then generated. However, at various points financial indicators have been introduced to help assess and explain financial performance to support the provision of *advice*. This chapter concentrates on this last phase of providing advice on the basis of an analysis and interpretation of the information presented in the Accounting reports to help the owner make more informed decisions.

In Accounting terms, **analysing** involves examining the reports in great detail to identify changes or differences in performance, while **interpreting** involves examining the relationships between the items in the reports in order to explain the cause and effect of those changes or differences. Once the causes and effects of changes or differences in performance are understood, a course of action can be recommended to the owner to assist decision-making.

Any analysis of business performance must include an assessment of:

- profitability: the ability of the business to earn profit, measured by comparing its profit against a base, such as sales, assets or owner's equity
- liquidity: the ability of the business to meet its short-term debts as they fall due
- **efficiency**: the ability of the business to manage its assets and liabilities
- **stability**: the ability of the business to meet its debts and continue its operations in the long term.

Rather than being discrete and separate, these areas of performance are interconnected, with changes in efficiency affecting profitability, changes in profitability affecting liquidity (and vice versa) and changes in liquidity affecting stability. Indeed, many indicators can be used to assess performance in more than one area, and business survival depends on having both satisfactory profitability and satisfactory liquidity: a profitable business will still fail if it cannot pay its debts.

However, it is still worth taking a particular focus to assess performance. This chapter concentrates on an assessment of profitability, while liquidity is addressed in Chapter 19. In the process, the firm's efficiency and stability will also be assessed.

Assessing profitability

At its most elemental, a firm's ability to earn profit is dependent on its ability to:

- earn revenue
- control expenses.

Consequently, any assessment of profitability must examine the firm's performance in these two areas, with an analysis of the Income Statement a logical starting point.

However, an assessment of profitability must not concentrate on *profit* (in dollar terms) alone. Many factors may affect a firm's ability to earn revenue and control its expenses, and the significance of these factors must be considered when assessing *profitability*. The size of the business (in terms of the assets it controls), the size of the

investment by the owner and the level of sales are all significant in determining how much profit a business is *able* to earn.

Profitability is more than assessing the firm's profit; it is about assessing the firm's capacity or *ability* to earn profit, assuming all these other factors were equal. Expressing profit *relative to another measure* allows for comparisons between different firms and different periods.

For example, a firm with assets of \$750 000 under its control is likely to generate a much larger profit (in dollar terms) than a firm with only \$50 000 worth of assets under its control. Comparing these firms on the basis of profit alone will not tell us which one is more *able* to use its assets to earn profit, it will simply tell us that one firm had more assets to use. However, if the profit was expressed *per dollar of assets*, it would be possible to make a comparison of the ability of each firm to earn profit *if it had the same asset base*, showing which was more profitable.

Obviously, the *level* of profit is an important measure of performance, and an assessment of profitability may begin with an examination of profit and the revenues and expenses by which it was derived. But it must then go further by comparing that profit against a base of some sort to examine the firm's ability to use its sales, its assets or the owner's contribution to earn profit. In this sense, profitability is a *relative measure*.



Review questions 18.1

- 1 **Explain** the purpose of analysing and interpreting Accounting reports.
- 2 **Explain** the relationship between analysing and interpreting Accounting reports.
- 3 **Define** the following terms:
 - profitability
 - liquidity
 - efficiency
 - stability.
- 4 **State** the two basic factors on which the ability to earn a profit is dependent.
- 5 **Explain** how profitability can be assessed between different firms.





18.2 Tools for assessing profitability

There are various tools available to assess profitability, including:

- trends
- variances
- benchmarks
- profitability indicators.

Trends

Trends are the patterns formed by changes over time, and in terms of profitability the identification of the trends in revenues and expenses from one period to the next is facilitated by analysing consecutive Income Statements.

trend

the pattern formed by changes over time

Example

Clear View Windows has provided the following (summarised) Income Statements for the year ended 31 December:

CLEAR VIEW WINDOWS			
Income Statement for the year ended 31 December			
	2028 \$	2029 \$	2030 \$
Sales	100 000	112 000	115 000
Less Cost of Goods Sold	62 000	72 800	78 200
Gross Profit	38 000	39 200	36 800
Less Inventory loss	700	600	500
Adjusted Gross Profit	37 300	38 600	36 300
Less Other expenses	25 000	25 600	26 000
Net Profit	12 300	13 000	10 300

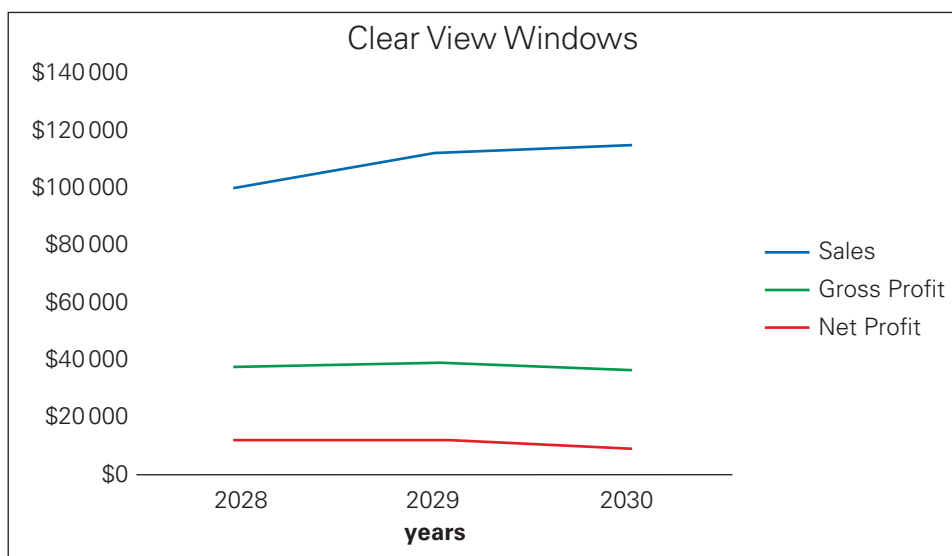
The reports show that **Sales** increased every year: first by \$12 000 from 2028 to 2029, then by a further \$3 000 in 2030. The trend in Sales is *favourable*: it is higher every year. The trend in Inventory loss is also *favourable* as it decreased every year, and the fact that this has happened despite higher sales is particularly pleasing; perhaps inventory procedures were more effective.

However, there is an *unfavourable* upward trend in Cost of Goods Sold and Other expenses. As a consequence, a \$12 000 increase in **Sales** in 2029 resulted in an increase in **Net Profit** of only \$700, and **Net Profit** is actually lower in 2030 despite **Sales** being \$15 000 higher than it was in 2028.

In order to aid the *Understandability* of the Accounting information, trends may be presented as line or bar graphs. This makes them easier to understand for users who have little or no Accounting knowledge.

Figure 18.1 shows a line graph showing Sales, Gross Profit and Net Profit for 2028 to 2030:

Figure 18.1 Trends: Sales, Gross Profit and Net Profit



The rising trend in Sales is clear, but the increasing gap between Sales and Net Profit (representing the increase in Cost of Goods Sold) is cause for concern.

In this example, both Sales and Cost of Goods Sold increased, but the fact that Gross Profit decreased in 2030 indicates that Cost of Goods Sold increased by more. We can reach this conclusion intuitively, but preparing a horizontal analysis will show the numerical proof as it calculates the change in items from one period to the next, expressing the change in both dollar and percentage terms, so that the relative size of the changes can be assessed.

Using the information above for 2028 and 2029, the horizontal analysis of the Income Statement would appear as shown in Figure 18.2:

horizontal analysis

comparing reports from one period to the next, and identifying the increase or decrease in specific items in the report

Figure 18.2 Horizontal analysis of the Income Statement

	2028 \$	2029 \$	Increase/Decrease	Difference \$	Difference %
Sales	100 000	112 000	Increase	12 000	12.0
Less Cost of Goods Sold	62 000	72 800	Increase	10 800	17.4
Gross Profit	38 000	39 200	Increase	1 200	3.2
Less Inventory loss	700	600	Decrease	100	14.3
Adjusted Gross Profit	37 300	38 600	Increase	1 300	3.5
Less Other expenses	25 000	25 600	Increase	600	2.4
Net Profit	12 300	13 000	Increase	700	5.7

The percentage difference is calculated by dividing the difference (in dollar terms) by the previous year's figure; for example, Sales: $\$12\,000 / \$100\,000 \times 100 = 12\%$.

This horizontal analysis shows that although Sales has increased by 12% in 2029, Cost of Goods Sold has actually increased by 17.4% (a larger increase), and this has led to Gross Profit only increasing by 3.2%, and Net Profit by only 5.7%. In this case, although revenue capacity has improved, expense control has worsened.

Variances

Trends highlight changes from one period to the next, but they don't allow the owner to assess whether they have met the firm's goals for that period. This assessment is performed

using a variance report, which highlights the difference between actual and budgeted figures so that problem areas can be identified and addressed. These reports are invaluable tools for assessing profitability because they draw attention to areas in which performance has been below expectation. (See Chapter 17 for a more detailed discussion.)

Benchmarks

benchmark

an acceptable standard against which the firm's actual performance can be assessed

profitability indicators

measures that express an element of profit in relation to some other aspect of business performance

In terms of profit and profitability, it is impossible to say whether a result is satisfactory without reference to a **benchmark** of some sort: an acceptable standard against which the firm's actual performance can be assessed. There is no set level of profitability that is considered to be satisfactory, but a firm may compare its actual profit performance against:

- **performance in previous periods**

This allows for the preparation of a horizontal analysis and identification of trends. Using this benchmark enables an assessment of whether profitability has *improved* or *worsened* from one period to the next.

- **budgeted performance for the current period**

This allows for the preparation of a variance report and enables an assessment of whether profitability was *satisfactory or unsatisfactory* in terms of meeting the firm's goals/expectations.

- **performance of similar firms**

This is sometimes expressed as an 'industry average'. It allows the firm's performance to be compared against other firms operating under similar conditions. This is sometimes known as an 'inter-firm' comparison.

Profitability indicators

In addition to the tools outlined above, the owner may ask the Accountant to calculate any number of **profitability indicators**. (These are sometimes known as 'profitability ratios', even though most are actually presented as percentages.) These indicators express an element of profit *in relation to some other aspect of business performance*. As a result, differences in profitability between years and also between businesses can be assessed, as the indicator expresses profitability according to a common base.

This course considers the following indicators:

- Return on Owner's Investment (ROI)
- Return on Assets (ROA)
- Asset Turnover (ATO)
- Net Profit Margin (NPM)
- Gross Profit Margin (GPM).

Some of these indicators have been explored in previous chapters, but this chapter also considers how they relate to each other.



Review questions 18.2

1 Define the following terms:

- trend
- benchmark
- variance
- profitability indicator.

2 Explain how trends can be used to assess profitability.

3 Explain how variances can be used to assess profitability.

4 Describe three benchmarks that can be used to assess profitability.

5 List five indicators that can be used to assess profitability.



18.3 Return on Owner's Investment (ROI)

From an investor's point of view, the main measure of profitability is **Return on Owner's Investment (ROI)**, which measures the profit (return) earned per dollar of capital invested by the owner. As a result, it indicates how effectively the business has used the owner's funds to earn profit, which is useful in helping the owner to decide between alternative investments.

Figure 18.3 shows how Return on Owner's Investment is calculated:

Figure 18.3 Formula: Return on Owner's Investment (ROI)

$$\text{Return on Owner's Investment (ROI)} = \frac{\text{Net Profit}}{\text{Average Capital}} \times 100$$

Given the Net Profit figure is earned over a period, but capital is measured at a particular point in time, Average Capital is used in the calculation of Return on Owner's Investment so that any increases or decreases in capital over the year are accounted for.

Figure 18.4 shows how Average Capital is calculated:

Figure 18.4 Formula: Average Capital

$$\text{Average Capital} = \frac{\text{Capital at start} + \text{Capital at end}}{2}$$

Return on Owner's Investment (ROI)

a profitability indicator that indicates how effectively a business has used the owner's capital to earn profit

Study tip

When adding these figures in your calculator, press '=' before dividing, or you'll only divide the last figure (not the total) by 2.

The following data was provided by two clothing stores:

	Carl's Clothing	Anna's Attire
Net Profit	\$14 000	\$10 000
Capital – 1 July 2029	\$72 000	\$41 000
Capital – 30 June 2030	\$68 000	\$39 000

Example

Clearly Carl's Clothing has earned more profit (\$14 000) than Anna's Attire (\$10 000), but the owner's investment is also higher. From an investor's point of view, which is more profitable?

The Return on Owner's Investment for each business would be calculated as shown in Figure 18.5:

Figure 18.5 Calculation: Return on Owner's Investment (ROI)

Carl's Clothing	Anna's Attire
$\text{ROI} = \frac{\$14\,000}{(\$72\,000 + \$68\,000) / 2} \times 100$ $= \frac{\$14\,000}{\$70\,000} \times 100$ $= 20\%$	$\text{ROI} = \frac{\$10\,000}{(\$41\,000 + \$39\,000) / 2} \times 100$ $= \frac{\$10\,000}{\$40\,000} \times 100$ $= 25\%$

The figures show that despite earning less profit, *Anna's Attire* is actually **more profitable** for its owner; for every dollar she has invested, *Anna* earns \$0.25 profit, whereas for every dollar he has invested, *Carl* only earns \$0.20 profit. Even though Carl has earned \$4 000 more profit than Anna, he has had to make a substantially larger investment of his own funds to do so.

Benchmarks

As with most profitability indicators, there is no set level at which Return on Owner's Investment would be considered satisfactory, but it could be compared against:

- the Return on Owner's Investment from *previous periods*
- the *budgeted* Return on Owner's Investment
- the Return on Owner's Investment of *similar businesses/alternative investments*.

This last benchmark is particularly important, because Return on Owner's Investment assesses profitability from an *investor's* point of view. Although we have approached this course from the perspective that the owner is also the operator, we must not lose sight of the fact that the owner has invested their own money in the business. By doing so, the owner has given up the opportunity to invest elsewhere, and therefore forgone the return that might be earned by investing in property, shares, financial products or other valuables, such as art, wine, antiques or even sporting memorabilia. For this reason, the Return on Owner's Investment must be comparable with the interest rate on a term deposit, the rent earned on property, the dividend earned on shares or simply the return earned by similar businesses.

In fact, given the risk they take by investing, and the long hours many work, the owner may require a Return on Owner's Investment that is higher than these alternative investments. On the other hand, a small business owner may be willing to accept a slightly lower return as a trade-off for the satisfaction that comes from running his or her own business.

Changes in Return on Owner's Investment

Return on Owner's Investment can also be used to assess changes in profitability from one period to the next.

Example

Filmore Doors has provided the following information relating to its trading activities for the year ended 31 December:

	2029	2030
Net Profit	\$6 400	\$5 400
Average Capital	\$40 000	\$30 000
Return on Owner's Investment	16%	18%

Study tip

Profitability indicators are the function of whatever is in their top line and bottom line; if the indicator changes, it is because one, or both, of these lines has changed.

In 2030 Net Profit *decreased* by \$1 000 (from \$6 400 to \$5 400), and yet the Return on Owner's Investment *increased* from 16% to 18%: how is this possible? The answer lies in the fact that the (average) capital decreased, meaning the owner is earning profit on a smaller base. This may mean the business is more reliant on debt (or has a higher Debt Ratio; see Section 18.4), and thus the risk to the business is increased, but from the point of view of the owner as an investor, it results in improved profitability.



Review questions 18.3

- 1 **State** what is measured by Return on Owner's Investment (ROI).
- 2 **Show** the formula to calculate Return on Owner's Investment.
- 3 **Explain** why the formula to calculate Return on Owner's Investment uses Average Capital.
- 4 **List** three benchmarks that could be used to assess the adequacy of the Return on Owner's Investment.
- 5 **Explain** the significance of the 'return on similar investments' as a benchmark for assessing the Return on Owner's Investment.
- 6 **Explain** how the Return on Owner's Investment can increase even though profit has decreased.



18.4 Debt Ratio

Section 18.3 referred to the fact that the Return on Owner's Investment can increase without an increase in profit if the owner's capital reduces. This point illustrates that the Return on Owner's Investment is not just reliant on profit, but also depends on the financial structure of the business: whether it has relied on owner's capital to purchase the assets that earn its profit or has instead relied on borrowed funds.

Thus, an analysis of the Return on Owner's Investment must also include an analysis of the firm's **Debt Ratio**, which measures the percentage of a firm's assets that are financed by liabilities, and thus indicates the extent to which the business is reliant on liabilities/debt (rather than owner's capital) to purchase its assets.

Figure 18.6 shows how the Debt Ratio is calculated:

Figure 18.6 Formula: Debt Ratio

$$\text{Debt Ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}} \times 100$$

A high Debt Ratio means a greater reliance on borrowed funds (liabilities) to purchase assets and, consequently, a lower reliance on funds contributed by the owner. This measure of the firm's long-term stability can be used to evaluate the level of risk associated with the business. However, it will have implications for the firm's profitability, particularly its Return on Owner's Investment.

Debt Ratio

a stability indicator that measures the percentage of a firm's assets that are financed by liabilities

Study tip

The Debt Ratio is sometimes referred to as 'gearing'.

The following data was provided by two shoe shops:

	High Fashions	Low Riders
Net Profit	\$8 000	\$8 000
Capital	\$32 000	\$80 000
Return on Owner's Investment	25%	10%
Total Liabilities	\$68 000	\$20 000
Total Assets	\$100 000	\$100 000

Example

Although both firms have earned the same **Net Profit** (\$8 000), the Return on Owner's Investment is higher for High Fashions (25%) than it is for Low Riders (10%). The reason for this difference is revealed by the Debt Ratio of each business, which is shown in Figure 18.7:

Figure 18.7 Calculation: Debt Ratio

High Fashions	Low Riders
$\text{Debt Ratio} = \frac{68\,000}{100\,000} \times 100$ $= 68\%$	$\text{Debt Ratio} = \frac{20\,000}{100\,000} \times 100$ $= 20\%$

Although both firms are the same size (with assets of \$100 000 under their control), 68% of the assets of **High Fashions** are funded from liabilities, with the remaining 32% financed using funds from the owner's capital. This relatively *high* Debt Ratio, and therefore low reliance on capital, explains the *higher* Return on Owner's Investment at 25%. It could, however, mean that High Fashions is exposed to a *greater risk* of financial collapse (see below).

For **Low Riders**, only 20% of the assets are funded from liabilities, with the majority (80%) financed by the owner. This *low* reliance on debt means *less risk*, but it also means a higher reliance on owner's capital and thus a *lower* Return on Owner's Investment (10%).

Benchmarks

In assessing the Debt Ratio, it should be compared against *previous periods* and the *budgeted* Debt Ratio, but the comparison against *similar firms* is particularly useful, as (by definition) they operate in the same industry, using similar assets and selling similar products. However, the Debt Ratio cannot be assessed in isolation: it should be assessed in conjunction with the Return on Owner's Investment.

Risk and return

A *high Debt Ratio* means the firm is more heavily reliant on borrowed funds than it is on the owner's capital, and this is one way of increasing the Return on Owner's Investment without actually increasing profit. With a higher Debt Ratio, the business is using someone else's funds to buy the assets to earn profit, but the owner still receives all that profit.

However, a higher Debt Ratio means there is a *higher risk* that the business will be unable to repay its debts and meet the interest payments. Further, interest rate rises could have a significant impact on profit and cash as the business is carrying so much debt.

On the other hand, a *low Debt Ratio* means the firm is not very reliant on borrowed funds and is therefore at relatively *low risk* of being unable to repay its debts. However, it also means that most of the finance used to purchase assets has come from the funds of the owner, and as the owner has had to contribute more personal funds, a lower Return on Owner's Investment will ensue.

The owner must judge carefully so that the Debt Ratio is high enough to maximise the Return on Owner's Investment, but not too high that it will create difficulties for the business in relation to its debt burden.



Review questions 18.4

- 1 **Explain** what is measured by the Debt Ratio.
- 2 **Show** the formula to calculate the Debt Ratio.
- 3 **Explain** the significance of 'similar firms' in assessing the Debt Ratio.
- 4 **Explain** why a high Debt Ratio might mean a higher risk of financial collapse.
- 5 **Explain** why a high Debt Ratio is likely to result in a high Return on Owner's Investment.



18.5 Return on Assets (ROA)

Whereas Return on Owner's Investment assesses profitability from an *investor's* point of view, **Return on Assets (ROA)** assesses profitability from a *manager's* point of view. Specifically, it measures Net Profit per dollar of assets controlled by the business. As a result, it indicates how effectively the firm has used its assets to earn profit.

Figure 18.8 shows how Return on Assets is calculated:

Return on Assets (ROA)

a profitability indicator that indicates how effectively a business has used its assets to earn profit

Figure 18.8 Formula: Return on Assets (ROA)

$$\text{Return on Assets (ROA)} = \frac{\text{Net Profit}}{\text{Average Total Assets}} \times 100$$

Just as the formula for Return on Owner's Investment used Average Capital, Return on Assets uses Average Total Assets. (If total assets has not changed significantly over the period, or an average cannot be calculated, total assets at the end of the period may be used.)

The following data was provided by two book stores:

	Barry's Books	Tina's Texts
Net Profit	\$15 000	\$18 700
Total assets – 1 January 2029	\$73 000	\$105 000
Total assets – 31 January 2029	\$77 000	\$115 000

Example

The first point to note from the figures is that **Tina's Texts** has earned **more profit**, but this may be simply because it has **more assets**; that is, it is a larger business and is therefore capable of generating larger sales and profit. But which is more profitable?

The Return on Assets for each business would be calculated as shown in Figure 18.9:

Figure 18.9 Calculation: Return on Assets (ROA)

Barry's Books	Tina's Texts
$\text{ROA} = \frac{\$15\,000}{(\$73\,000 + \$77\,000) / 2} \times 100$ $= \frac{\$15\,000}{\$75\,000} \times 100$ $= 20\%$	$\text{ROA} = \frac{\$18\,700}{(\$105\,000 + \$115\,000) / 2} \times 100$ $= \frac{\$18\,700}{\$110\,000} \times 100$ $= 17\%$

The figures show that it is actually **Barry's Books** that is **more profitable**, as it earns **\$0.20** profit from every dollar of assets it controls, whereas **Tina's Texts** only earns **\$0.17** profit per dollar of assets.

Barry is using his firm's assets more effectively to earn profit, and this could be for a number of reasons: perhaps his inventory is in higher demand, or his store is in a better location, or his expense control is better. As the manager, Tina may wish to adopt some of Barry's strategies (if he is willing to tell!).

Benchmarks

The preceding example used the Return on Assets of a *similar business* as a benchmark, but it could also be assessed against the Return on Assets from *previous periods* or the *budgeted* Return on Assets.

Return on Owner's Investment and Return on Assets

Study tip

The exact size of the gap between ROI and ROA will depend on the firm's Debt Ratio.

As many small business owners are both investors and managers, they will need to look at both the Return on Owner's Investment and the Return on Assets when assessing profitability. One thing they will notice is that the Return on Owner's Investment will always be *higher* than the Return on Assets. This is because owner's equity will always be lower than total assets, which in turn is due to its borrowings – its liabilities. Only in a firm that has no liabilities, which is extremely unlikely, will the Return on Owner's Investment be the same as the Return on Assets.

Changes in Return on Assets

When assessing changes in the Return on Assets, it is important to keep in mind the figures that are used in its formula: on the top line, the profit the business has earned, and on the bottom, the assets it controls. If assets increase, then so too should Net Profit – that is the purpose of buying non-current assets. However, if assets increase and Net Profit increases by a smaller proportion, then the Return on Assets will fall, indicating that the assets have not been used as profitably. On the other hand, if Net Profit increases by more than assets, the Return on Assets will rise, indicating improved use of assets and improved profitability.

The Net Profit figure itself is of course reliant on the two basic factors we identified earlier: earning revenue and controlling expenses. Therefore, assuming assets do not change, an improvement in the Return on Assets may be the result of an improved ability to earn revenue or better expense control, or both. A deterioration in the Return on Assets would, of course, be caused by the opposite. Either way, the Return on Assets will depend heavily on the firm's ability to earn revenue and control its expenses, so this is the next phase in our analysis of profitability.



Review questions 18.5

- 1 **State** what is measured by Return on Assets (ROA).
- 2 **Show** the formula to calculate Return on Assets.
- 3 **List** three benchmarks that could be used to assess the adequacy of the Return on Assets.
- 4 **Explain** why Return on Owner's Investment will always be higher than Return on Assets.
- 5 **Identify** two factors that could cause an increase in the Return on Assets.



18.6 Earning revenue: Asset Turnover (ATO)

Asset Turnover (ATO) is an efficiency indicator as it indicates how efficiently the firm has used its assets to generate revenue. However, as earning revenue is one of the keys to earning profit, Asset Turnover will have a direct and significant effect on, and thus be an important tool for assessing, profitability.

Figure 18.10 shows how Return on Assets is calculated:

Asset Turnover (ATO)

an efficiency indicator that indicates how productively a business has used its assets to earn revenue

Figure 18.10 Formula: Asset Turnover (ATO)

$$\text{Asset Turnover (ATO)} = \frac{\text{Net Sales}}{\text{Average Total Assets}}$$

Specifically, this indicator measures the number of times in a period the value of assets is earned as Sales revenue: the higher the Asset Turnover, the more capable the firm is of using its assets to earn revenue.

Pino's Plant Nursery has provided the following information relating to its trading activities for the year ended 30 June:

	2029	2030
Sales	\$100 000	\$125 500
Sales returns	\$4 000	\$4 000
Average Total Assets	\$80 000	\$90 000

Example

Average assets increased (by \$10 000) in 2030, so an increase in Sales revenue is expected. However, has the firm used these extra assets more or less productively than it did in 2029?

The Asset Turnover for each year would be calculated as shown in Figure 18.11:

Figure 18.11 Calculation: Asset Turnover (ATO)

2029	2030
$\text{ATO} = \frac{\$100\,000 - \$4\,000}{\$80\,000}$	$\text{ATO} = \frac{\$125\,500 - \$4\,000}{\$90\,000}$
$= \frac{\$96\,000}{\$80\,000}$	$= \frac{\$121\,500}{\$90\,000}$
$= 1.2 \text{ times}$	$= 1.35 \text{ times}$

In 2029, the business earned **1.2 times** the value of its assets as revenue, and this has risen to **1.35 times** in 2030. This confirms that Pino's Plant Nursery has earned more revenue in 2030 not only because it has *more assets*, but because it has used those assets *more productively*.



Benchmarks

The preceding example compared Asset Turnover against a *previous period*, but it could equally be assessed against the *budgeted* Asset Turnover or the Asset Turnover of *similar businesses*. In cases where an expansion is planned, and average assets are expected to increase, budgeted Asset Turnover may be the best benchmark to use for assessment, as it reflects the firm’s goal for increased Sales revenue on a greater asset base.

Asset Turnover and Return on Assets

The similarity between Asset Turnover and the Return on Assets reflects the fact that they both assess the firm’s ability to use its assets; the only difference being that Return on Assets relates to *profit*, whereas Asset Turnover relates only to *revenue*. Theoretically, an increase in Asset Turnover (meaning an increased ability to earn Sales revenue) should mean an increase in the Return on Assets and increased Net Profit. However, this is not always the case.

Let us return to the previous example (Pino’s Plant Nursery) with additional information provided:

Example (continued)

Pino’s Plant Nursery has provided the following information relating to its trading activities for the year ended 30 June:

	2029	2030
Sales	\$100 000	\$125 500
Sales returns	\$4 000	\$4 000
Average Total Assets	\$80 000	\$90 000
Asset Turnover	1.2 times	1.35 times
Return on Assets	15%	14%

Study tip

When indicators are already expressed as percentages, the change should be described in terms of percentage points.

As noted previously, the *Asset Turnover* shows the business is *more productive*, in terms of using its assets to earn revenue, in 2030. However, the figures show that in spite of this increase in Asset Turnover, *profitability* (as measured by the *Return on Assets*) has actually *fallen* (by one percentage point).

The only difference between the Asset Turnover and the Return on Assets is the difference between Sales revenue and Net Profit, i.e. expenses. Therefore, where the Asset Turnover and the Return on Assets move in different directions, or to differing degrees, it indicates a change in expense control. In this example, the Asset Turnover increased, and the Return on Assets decreased, indicating worse expense control.



Review questions 18.6

- 1 **State** what is measured by Asset Turnover (ATO).
- 2 **Show** the formula to calculate Asset Turnover.
- 3 **List** three benchmarks that could be used to assess the adequacy of a firm’s Asset Turnover.
- 4 **Explain** how the relationship between a firm’s Asset Turnover and its Return on Assets can be used to assess its expense control.

18.7 Controlling expenses

We noted in Chapter 14 that expenses should not necessarily be looked on as 'bad', because they assist in the earning of revenue. However, this does not mean that the firm should be happy to see more and more of its Sales revenue being consumed by expenses. After all, every dollar that is consumed by expenses means one dollar less Net Profit. This means the firm's ability to control its expenses is a key factor in its ability to earn profit.

Expense control refers to the firm's ability to manage its expenses so that they either decrease, or increase no faster than Sales revenue. This last point may seem a little odd: why should the owner settle for anything less than a reduction in expenses? Remember that in the pursuit of greater Sales, it is unavoidable that some expenses will increase. Expenses such as Cost of Sales and Wages vary directly with the level of Sales, so it is logical that as Sales volume increases, these expenses will increase too. Provided they do not increase more than Sales, we can consider this to be evidence of satisfactory expense control. Should they actually increase by less than Sales, we would consider this to be evidence of improved expense control.

If expense control improves, then profitability should also improve, and there are two indicators that calculate the percentage of each dollar of Sales that is retained as profit:

- Net Profit Margin (NPM)
- Gross Profit Margin (GPM).

In assessing these indicators, we will use the benchmarks established earlier in this chapter, namely:

- performance in *previous periods*
- *budgeted* performance
- performance of *similar firms*.

expense control

the firm's ability to manage its expenses so that they either decrease or, in the case of variable expenses, increase no faster than Sales revenue

Review questions 18.7

- 1 **Define** the term 'expense control'.
- 2 **State** two reasons why the owner of a small business will tolerate increases in some expenses.
- 3 **State** two profitability indicators that assess expense control.





18.8 Net Profit Margin (NPM)

Competition in many markets means that earning revenue is a challenging exercise for most small businesses. With this in mind, it is vital that, once a sale is made, the business retains as much of that revenue as profit as is possible. The Net Profit Margin (NPM) measures the percentage of Sales revenue that is retained as Net Profit. Put another way, it measures how much of each dollar of Sales revenue remains as Net Profit after expenses are deducted. As a result, it is a good indicator of expense control. Figure 18.12 shows how the Net Profit Margin is calculated:

Figure 18.12 Formula: Net Profit Margin (NPM)

$$\text{Net Profit Margin (NPM)} = \frac{\text{Net Profit}}{\text{Net Sales}} \times 100$$

Due to differences in Sales revenue, comparing Net Profit between businesses and between periods can be difficult; it is difficult to isolate how much of the difference is due to expense control, and how much is simply due to different Sales revenue. Because this indicator expresses Net Profit *per dollar of Sales*, it can identify changes in profit independent of changes in Sales revenue.

Example

Misha’s Shoe Barn has provided the following information from its Income Statement for the year ended 30 June:

	2029	2030
Sales	\$73 000	\$81 100
Sales returns	\$1 000	\$1 100
Net Profit	\$14 400	\$15 200

As would be expected, higher Sales revenue in 2030 has generated extra profit, but has it generated *enough* extra profit? Has expense control changed? The Net Profit Margin for each year would be calculated as shown in Figure 18.13:

Figure 18.13 Calculation: Net Profit Margin (NPM)

2029	2030
$\begin{aligned} \text{NPM} &= \frac{\$14\,400}{\$73\,000 - \$1\,000} \times 100 \\ &= \frac{\$14\,400}{\$72\,000} \times 100 \\ &= 20\% \end{aligned}$	$\begin{aligned} \text{NPM} &= \frac{\$15\,200}{\$81\,100 - \$1\,100} \times 100 \\ &= \frac{\$15\,200}{\$80\,000} \times 100 \\ &= 19\% \end{aligned}$

Study tip

Deducting the NPM from 100 will reveal the percentage of each Sales dollar that is consumed by expenses.

The figures reveal that in 2029, 20c of every dollar of Sales revenue was retained as Net Profit, but in 2030 this fell to 19c per dollar. Alternatively, 80c was consumed by expenses in 2029, and this increased to 81c in 2030. This means that expense control was *worse* in 2030.

Net Profit Margin, Asset Turnover and Return on Assets

The earlier discussion of Return on Assets highlighted that the ability of a firm to use its assets to earn profit depends on its ability both to **earn revenue** and to **control its expenses**. We now have an indicator that measures each of these factors:

- **Asset Turnover** measures the ability of the firm to use its assets to earn revenue.
- **Net Profit Margin** measures the ability of the firm to control its expenses and retain Sales revenue as Net Profit.

Thus, Return on Assets depends on both the Asset Turnover and the Net Profit Margin.

Figure 18.14 shows that this relationship is borne out mathematically too:

Figure 18.14 Return on Assets = Asset Turnover × Net Profit Margin

$$\begin{aligned}
 \text{Return on Assets} &= \text{Asset Turnover} \times \text{Net Profit Margin} \\
 &= \frac{\text{Net Sales}}{\text{Average Total Assets}} \times \frac{\text{Net Profit}}{\text{Net Sales}} \\
 &= \frac{\text{Net Profit}}{\text{Average Total Assets}}
 \end{aligned}$$

'Cancelling down' proves that the Return on Assets, and therefore profitability, depends on the ability of the firm to use its assets to **earn revenue** (as measured by **Asset Turnover**) and to **control its expenses** (as measured by the **Net Profit Margin**).



Review questions 18.8

- 1 State** what is measured by the Net Profit Margin (NPM).
- 2 Show** the formula to calculate the Net Profit Margin.
- 3 Explain** the relationship between Asset Turnover, Net Profit Margin and Return on Assets.



18.9 Gross Profit Margin (GPM)

Because the **Net Profit Margin** uses **Net Profit** in its calculation, it can be used to assess **overall expense control**. If Gross Profit is used instead, we are able to assess expense control specifically as it relates to inventory and Cost of Goods Sold. Thus, the Gross Profit Margin (GPM) measures the percentage of Sales revenue that is retained as Gross Profit.

Figure 18.15 shows how the Gross Profit Margin is calculated:

Figure 18.15 Formula: Gross Profit Margin (GPM)

$$\text{Gross Profit Margin (GPM)} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$$

Gross Profit is the difference between Sales revenue and Cost of Goods Sold, and it is used to assess the adequacy of the firm’s mark-up: the difference between the selling price and the cost price of its inventory. Therefore, the Gross Profit Margin can be used to assess the average mark-up on all goods sold during a particular period.

**Example
(continued)**

Misha’s Shoe Barn has provided the following information from its Income Statement for the year ended 30 June:

	2029	2030
Sales	\$73 000	\$81 100
Sales returns	\$1 000	\$1 100
Gross Profit	\$38 160	\$44 800
Net Profit	\$14 400	\$15 200
Net Profit Margin	20%	19%

By calculating the **Net Profit Margin**, it was established that although Net Profit increased, this was only due to higher Sales. In fact, the **Net Profit Margin fell** in 2030, indicating **worse expense control overall**. So which expense(s) is (are) the cause?

The Gross Profit Margin for each year would be calculated as shown in Figure 18.16:

Figure 18.16 Calculation: Gross Profit Margin (GPM)

2029	2030
$\text{GPM} = \frac{\$38\,160}{\$73\,000 - \$1\,000} \times 100$ $= \frac{\$38\,160}{\$72\,000} \times 100$ $= 53\%$	$\text{GPM} = \frac{\$44\,800}{\$81\,100 - \$1\,100} \times 100$ $= \frac{\$14\,800}{\$80\,000} \times 100$ $= 56\%$

In 2029, **53c** of each dollar of Sales was retained as Gross Profit. In 2030, this rose to **56c** per dollar, reflecting a **higher average mark-up**. Put another way, **47c** of every Sales dollar was consumed by Cost of Goods Sold in 2029 (\$1 less **47c** Cost of Goods Sold = **53c** Gross Profit), but this fell to **44c** per dollar in 2030. Why? Although Sales revenue and Gross Profit both increased, Gross Profit increased (proportionally) more, due to a (proportionally) smaller increase in Cost of Goods Sold.

Given that the **Gross Profit Margin increased**, poor control of Cost of Goods Sold is *not* responsible for the decrease in the Net Profit Margin, so the increase must have come from Other expenses.

Changes in mark-up

A higher Gross Profit Margin means a higher average mark-up: on average, a bigger gap between selling and cost prices. This could occur if:

- selling prices increased and cost prices remained constant
- cost prices decreased and selling prices remained constant
- both increased, but selling prices increased by more
- both decreased, but cost prices decreased by more.

Increasing selling prices will increase the average mark-up, but it carries the risk of lowering demand and thus reducing the volume of sales. This could mean that while the Gross Profit Margin increases, Gross Profit (in dollars) may actually decrease. That is, the business may make more Gross Profit *per item* but make fewer actual sales. If the drop in the number of sales outweighs the increase in profit per item, Gross Profit will actually fall.

Finding a cheaper supplier will avoid this risk, but it carries a risk of its own. If the quality of the inventory is reduced, this could cause a decrease in sales volume, or an increase in sales returns or inventory losses (through damage). All these factors could potentially undermine the benefits of a higher average mark-up. This does not mean the business should not look for a cheaper supplier, but it does mean the business must be vigilant about the quality of its inventory.

Assuming the business can maintain its sales volume (the number of sales it makes) and customer satisfaction, a higher mark-up will mean not only a higher Gross Profit Margin, but also a higher Gross Profit.



Review questions 18.9

- 1 **State** what is measured by the Gross Profit Margin (GPM).
- 2 **Show** the formula to calculate the Gross Profit Margin.
- 3 **Explain** two ways a business could increase its average mark-up.
- 4 **Explain** how an increase in mark-up could lead to a decrease in Gross Profit.





18.10 Vertical analysis of the income statement

vertical analysis
a report that expresses
every item as a
percentage of a base
figure

Both Net Profit Margin and Gross Profit Margin divide the appropriate profit figure by Sales revenue. This allows for an evaluation of expense control by assessing what had happened to each dollar of Sales revenue. This approach can be applied to every item in the Income Statement in what is known as a **vertical analysis**.

The vertical analysis for Misha's Shoe Barn is shown in Figure 18.17:

Figure 18.17 Vertical analysis of the Income Statement

MISHA'S SHOE BARN Income Statement for the year ended 30 June				
	2029		2030	
	\$	%	\$	%
Sales revenue	72 000	100	80 000	100
Less Cost of Goods Sold	33 840	47	35 200	44
Gross Profit	38 160	53	44 800	56
Less Inventory loss	720	1	800	1
Adjusted Gross Profit	37 440	52	44 000	55
Less Other expenses				
Advertising	3 600	5	4 800	6
Rent expense	7 200	10	7 200	9
Wages	12 240	17	16 800	21
Net Profit	14 400	20	15 200	19

By comparing the vertical analysis from one year to the next, we can see changes not just in expense *amounts* (as would be shown in a horizontal analysis), but changes in expenses as a *percentage of Sales*. That is, it shows what each revenue and expense would be *if Sales had been constant*.

This vertical analysis confirms what we identified by calculating the Net Profit Margin and Gross Profit Margin:

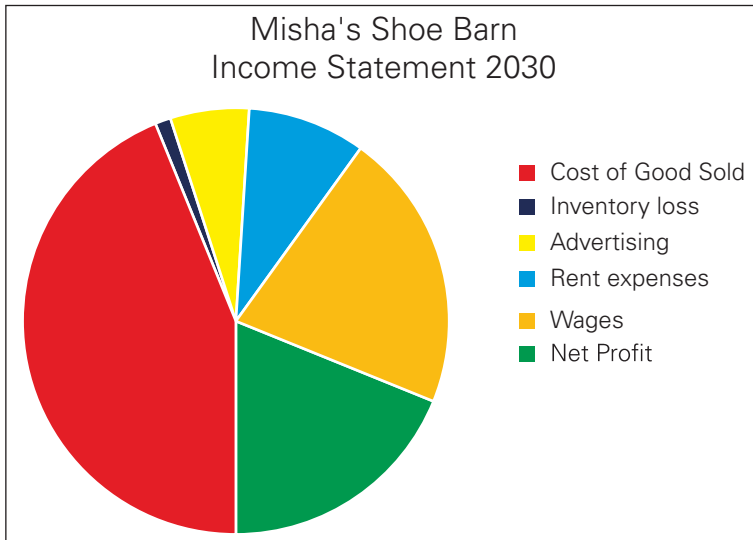
- Sales revenue increased by \$8 000, and this led to an increase in Net Profit of \$800. However, the Net Profit Margin decreased from **20%** to **19%**, indicating a slight deterioration in expense control.
- The Gross Profit Margin increased from **53%** to **56%**, indicating a higher average mark-up.
- Although Inventory loss increased, this was in proportion to the increase in Sales revenue, so as a percentage of revenue it was constant (at 1%). Expense control here was satisfactory.
- Higher Sales led to higher wages, but the expense increased proportionately more than Sales revenue, increasing from **17%** to **21%** of Sales revenue. The same applies to Advertising, which increased from **5%** to **6%** of Sales revenue.
- As a fixed expense, Rent expense was constant in dollar terms, but as Sales revenue increased, it absorbed less of each dollar of Sales, decreasing from **10%** to **9%**.

Graphical representations

Given that not all business owners are Accountants, presenting a vertical analysis in a pie chart is one way of ensuring *Understandability* in the Accounting reports.

Figure 18.18 shows the pie chart representing the vertical analysis of the Income Statement for 2030:

Figure 18.18 Graphical representation of vertical analysis

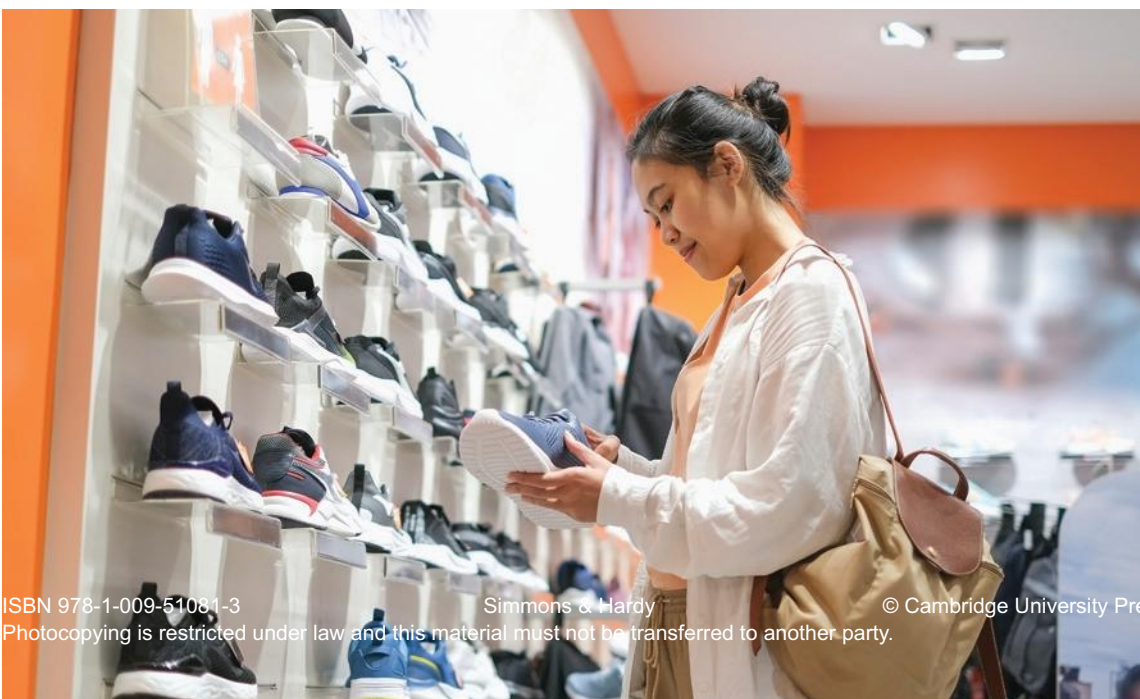


This pie chart shows that **Cost of Goods Sold** is clearly the most significant expense, consuming almost half of every Sales dollar, so action here may prove very effective in terms of improving profitability. On the other hand, Inventory loss is relatively small, so even if inventory management was improved significantly, only a small improvement in profitability is likely.



Review questions 18.10

- 1 **Explain** what is shown in a vertical analysis of the Income Statement.
- 2 Referring to one Qualitative characteristic, **explain** one benefit of preparing a vertical analysis as a pie chart.





18.11 Non-financial information

The assessment of profitability in this chapter has relied primarily on the Income Statement and profitability indicators, which are themselves derived in large part from the Income Statement. These are obviously very important in evaluating profitability, but there are limits on the ability of this information to assist the owner in making financial decisions. These include the fact that:

- the reports use *historical data*, so they do not guarantee what will happen in the future
- many indicators rely on *averages*, and this may conceal details about individual items
- firms use *different Accounting methods*, which can undermine the *Comparability* of the reports and profitability indicators
- the reports contain *limited information*, and there may be many items of information simply not reported in an Income Statement.

As a consequence of these limitations, the owner should not rely on profitability indicators and the Income Statement alone. In fact, non-financial information – information that is not expressed in dollars and cents or reliant on dollars and cents for its calculation and cannot be found in the financial statements – can be just as important in aiding decision-making.

The types of non-financial information that could be useful to the owner of a small business are impossible to quantify, but in assessing the firm's performance, the owner may want information about:

- **the firm's relationship with its customers**

Given the inherent difficulties of attracting customers, it is vital that small businesses retain those customers they already have. It is therefore essential to have feedback from current customers on their degree of satisfaction (or dissatisfaction) with current products and services offered by the firm. This could be assessed by:

- customer satisfaction surveys
- the number of repeat sales
- the number of sales returns
- the number of customer complaints
- the number of sales enquiries/catalogue requests
- the degree of brand recognition, based on market research.

- **the suitability of inventory**

Businesses must assess the suitability of their inventory on a continuous basis to ensure that they are meeting the demands of consumers. The level of sales reports how much was sold, but it gives little feedback on whether customers were satisfied with their purchase. Not every customer can be surveyed, but useful data may be:

- the number of sales returns (especially if the firm keeps detailed records on the reasons for those returns)
- the number of purchase returns (and the most frequent reasons for the returns)
- the number of customer complaints.

- **the firm's relationship with its employees**

Although not reported directly in the Income Statement, the performance of employees has a direct and significant bearing on whether a profit or loss is generated. Staff may be responsible for important tasks, such as generating sales or managing inventory, so appraising their performance and satisfaction is an important part of assessing the firm's performance. This could be measured by:

- structured performance appraisals
- the average length of employment (staff turnover)

- the number of employee complaints
- the number of sick days taken.

- **the state of the economy**

Even the most profitable business will struggle to survive in a difficult economic environment, so the state of the economy must be factored in to any evaluation of profitability. Specifically, the owner may wish to consider:

- the consumer confidence index
- the unemployment rate
- the number of competitors in the market.

- **other factors**

Businesses do not operate in a vacuum but in a social, geographical, environmental, political and ethical climate, and the factors affecting this climate will also affect the business. As a result, a business may need to consider data like:

- the average age of its customers
- the number/percentage of customers in favour of recyclable packaging or 'fair trade' practices
- the number of days inventory takes to arrive from suppliers
- the distance from the business to the closest train station or bus stop
- the types and toxicity of pollutants generated when the goods are produced
- the law and suggested changes
- the season/time of the year (e.g. summer/winter, Christmas, school holidays)
- the average daily temperature or rainfall (i.e. the weather!).

Ethical considerations

A successful business owner will therefore operate with one eye on the financial information generated by the Accounting system, and the other on the non-financial information it can obtain about the economy and society in which the business operates. Armed with this information, good decisions are not guaranteed but are at least more likely.



Review questions 18.11

- 1 **Explain** four limitations of relying solely on the Income Statement and profitability indicators to evaluate profitability.
- 2 **Define** the term 'non-financial information'.
- 3 **State** two measures that could be used to assess:
 - the firm's relationship with its customers
 - the suitability of inventory
 - the firm's relationship with its employees
 - the state of the economy
 - other factors affecting business performance.





18.12 Strategies to improve profitability

The whole point of gathering and recording financial data, reporting financial information, and analysing and interpreting the financial reports is to enable the Accountant to assist the owner in making decisions. In many cases the Accountant will do this by providing advice: suggesting strategies to improve the firm's performance.

If profitability is a function of the firm's ability to *earn revenue* and *control its expenses*, then strategies to improve profitability should concentrate on these two areas.

Earning revenue

To improve its ability to earn revenue, a business might:

Change selling prices	• Decrease selling prices to generate a higher volume of sales • Increase selling prices to generate greater revenue per sale
Market more strategically and effectively	• Increase advertising • Target marketing more accurately • Refocus advertising
Implement strategies to manage inventory	• Maintain an appropriate inventory mix • Promote the sale of complementary goods • Ensure inventory is up to date • Rotate inventory
Change location	• Move closer to customers, potential and existing
Improve customer service	• Train staff in service and/or product knowledge and skills • Provide extra services (such as deliveries, wrapping, internet/phone access and product advice) • Implement more customer-friendly internal procedures (such as ordering)

Controlling expenses

To improve its ability to control expenses, a business might:

Change inventory management practices	• Find an alternative supplier who can provide cheaper and/or better-quality inventory • Streamline ordering and handling procedures
Change staff management practices	• Review staff rosters to better match the number of staff to the level of sales • Offer incentives for higher sales or improved customer satisfaction • Provide extra training
Change non-current asset management practices	• Adopt energy-saving practices and devices • Change utility suppliers for cheaper prices • Replace inefficient non-current assets

The specific nature of the advice given to the owner will depend in large part on the circumstances of the individual business in question: what is right for one may not be appropriate for another. The Accountant's role is to provide guidance and assistance so that decisions are made in an informed manner, but ultimately it is up to the owner to decide what course of action to take.



Review questions 18.12



- 1 **State** three strategies that could be used to improve a firm's ability to earn revenue.
- 2 **State** three strategies that could be used to improve a firm's ability to control its expenses.



Where have we been?

- Analysing involves examining the reports in detail to identify changes or differences in performance, whereas interpreting involves examining the relationships between items in the reports in order to explain the cause and effect of those changes or differences.
- Profitability is about assessing the firm's capacity or ability to earn profit, assuming all other factors were equal.
- There are various tools available to assess profitability, including trends, variances, benchmarks and profitability indicators.
- Benchmarks for assessing profitability include performance in previous periods, budgeted performance and the performance of other similar firms.
- Profitability indicators express an element of profit in relation to some other aspect of business performance.
- Return on Owner's Investment assesses profitability from an investor's point of view.
- The Debt Ratio has implications for both risk (long-term stability) and return (Return on Owner's Investment).
- Return on Assets assesses profitability from a manager's point of view.
- The Net Profit Margin and Gross Profit Margin assess expense control.
- The Return on Assets depends on the Asset Turnover and the Net Profit Margin.
- Evaluating profitability is limited by the use of historical data, the use of averages, different Accounting methods and limited information.
- A business may require non-financial information about its relationship with its customers, its inventory, its relationship with its employees, the state of the economy and other factors.



Exercises



Exercise 18.1
Profitability

Vince Laconis is the owner of Cheltenham HiFi, which last year earned \$25 000 profit. His friend Marinda Rendle is the owner of Mentone Stereo Store, which earned \$16 000 profit for the same period. Vince has stated that because his firm’s profit is higher, his firm must be more profitable.

Required

- a. **Explain** one reason why Vince’s statement is incorrect.
- b. **State** two bases that profit could be compared against in an assessment of profitability.
- c. **Explain** whether a horizontal analysis would help to assess which business is more profitable.
- d. **Identify** two profitability indicators that might help to assess which business is more profitable.



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Exercise 18.2
Return on Owner’s Investment

Karl’s Kites is a kite shop owned and run by Karl Largerflag. Karl has provided the following information relating to its performance over the last two years:

	2029	2030
Net Profit	\$15 000	\$14 400
Average Capital	\$150 000	\$120 000

Karl is considering whether to continue as the owner or sell the business and invest in a property trust that is currently earning 8% per year.

Required

- a. **Calculate** the Return on Owner’s Investment for Karl’s Kites for 2029 and 2030.
- b. **Explain** the cause(s) of the change in the Return on Owner’s Investment from 2029 to 2030.
- c. **State** two reasons why Karl should be happy with the firm’s profitability in 2030.
- d. **State** one reason why Karl should be concerned about the firm’s profitability in 2030.
- e. **Explain** one other factor Karl should consider before making his decision.



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Exercise 18.3

Return on Owner's Investment and Debt Ratio

Babbling Brooke sells ponds and other garden ornaments and has provided the following information relating to its performance over the last two years:

	2029	2030
Net Profit	\$22 000	\$10 000
Return on Owner's Investment	10%	12.5%
Total Liabilities	\$180 000	\$320 000
Total Assets	\$400 000	\$400 000

Required

- Calculate** the Debt Ratio for Babbling Brooke for 2029 and 2030.
- Explain** the effect of the change in the Debt Ratio on the long-term stability of Babbling Brooke.
- Explain** the effect of the change in the Debt Ratio on the profitability of Babbling Brooke.
- Discuss** whether the profitability of Babbling Brooke improved or worsened in 2030.



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Exercise 18.4

Return on Owner's Investment and Return on Assets

Legend Guitars and Axeman's Heaven are competitors in selling musical instruments. The following information relates to their trading performance for 2030:

	Legend Guitars	Axeman's Heaven
Net Profit	\$12 000	\$12 000
Average Owner's equity	\$80 000	\$40 000
Average Total Assets	\$120 000	\$150 000
Return on Owner's Investment	15%	30%
Debt Ratio	33%	73%

Required

- Explain** why the Return on Owner's Investment is higher for Axeman's Heaven than Legend Guitars.
- State** what is measured by Return on Assets.
- Calculate** the Return on Assets for each firm for 2030.
- From a manager's point of view, **state** which firm is more profitable. **Justify** your answer.
- Explain** why a firm's Return on Owner's Investment will always be greater than its Return on Assets.
- State** one other indicator the Accountant would need to consider before giving advice to improve profitability. **Explain** the role of this indicator.



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**Exercise 18.5****Return on Assets and Asset Turnover**

Only Bikes has presented the following information relating to its performance for 2029 and 2030:

	2029	2030
Sales revenue	\$300 000	\$448 000
Sales returns	\$4 500	\$5 000
Net Profit	\$15 000	\$16 800
Average Total Assets	\$200 000	\$280 000
Return on Assets	7.5%	6%

The owner of Only Bikes argues that expense control must have improved in 2030 because Net Profit increased.

Required

- State** what is measured by Asset Turnover.
- Calculate** Asset Turnover for Only Bikes for 2029 and 2030.
- Explain** why Asset Turnover has changed from 2029 and 2030.
- Referring to Asset Turnover and Return on Assets, **explain** why the owner's assertion is incorrect.
- Suggest** two strategies the owner could adopt to improve Net Profit in 2031 without changing Asset Turnover.



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**Exercise 18.6****Asset Turnover and Net Profit Margin**

Filmore Fittings sells hardware and homewares and has provided the following information relating to its performance for 2030:

	Filmore Fittings	Industry average
Return on Owner's Investment	20%	12.5%
Return on Assets	6%	8%
Asset Turnover	0.60 times	0.64 times
Net Profit Margin	10%	12.5%

Required

- State** two reasons why the Return on Assets of Filmore Fittings is lower than the industry average.
- State** two benchmarks other than the industry average that could be used to assess the Return on Assets of Filmore Fittings.
- Suggest** two strategies Filmore Fittings could adopt to improve its Asset Turnover in 2031.
- Explain** why an improvement in expense control could still see total expenses increase in 2031.
- Assuming it had the same total assets as the industry average (\$500 000), **state** whether the Debt Ratio of Filmore Fittings for 2030 would be:
 - higher than the industry average
 - lower than the industry average
 - the same as the industry average
 - unable to be determined.

Justify your answer.



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The owner has proposed change to the types of inventory offered for sale in 2031 that she argues would result in an increase in Net Sales by 10%. She is adamant that Total Assets would not need to change and that this would ensure that the business would meet the industry averages.

- f. Assuming the owner is correct, **model** the effects of the owner's proposal by calculating the following for Fillmore Fittings for 2031:
- Net Sales
 - Asset Turnover
- (Hint: Use the Asset Turnover and Average Total Assets for 2030 in your calculation).
- g. Referring to your answer to part f, **discuss** whether the owner's proposal would ensure that the business would meet the industry averages in 2031.



Exercise 18.7

Net Profit Margin

All the Weights sells gym equipment and has provided the following information about its profit performance for 2029 and 2030:

	2029	2030
Sales	\$153 000	\$175 000
Net Profit	\$8 500	\$11 000
Asset Turnover	1.8 times	1.75 times
Return on Assets	10%	11%

Required

- a. Referring to the information above, **identify** one indicator that shows that the firm's ability to earn revenue has worsened.
- b. **State** the reason for the decrease in the firm's Asset Turnover.
- c. **State** what is measured by the Net Profit Margin.
- d. **Calculate** the Net Profit Margin for 2029 and 2030.
- e. **Explain** why the firm's Return on Assets has increased in 2030.



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Exercise 18.8

Gross Profit Margin

Holly's Golf Gear has provided the following information:

	2030
Sales revenue	\$122 300
Sales returns	\$2 300
Gross Profit	\$75 000
Adjusted Gross Profit	\$72 000
Net Profit	\$45 000
Gross Profit Margin – 2029	60%



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Required

- Explain** what is measured by the Gross Profit Margin.
- Calculate** Gross Profit Margin for 2030.
- State** two strategies the owner could adopt to improve the Gross Profit Margin in 2031.
- Explain** how increasing selling prices in 2031 could lead to an increase in the Gross Profit Margin but a decrease in Gross Profit.
- Suggest** two strategies that the owner could adopt in 2031 to improve the Adjusted Gross Profit without changing the Gross Profit Margin.
- Assuming Net Sales remained the same as 2030, **model** the effect on Gross Profit for 2031 if the Gross Profit Margin could be increased to 68%.

**Exercise 18.9****Net Profit Margin and Gross Profit Margin**

The owner of Campbell Paints has provided the following information:

	2029	2030
Sales	\$540 000	\$580 000
Gross Profit	\$297 000	\$301 600
Other Expenses	\$243 000	\$243 600
Net Profit	\$54 000	\$58 000
Gross Profit Margin	55%	52%

In response to the decrease in the Gross Profit Margin, the owner plans to increase spending on advertising in 2031.

Required

- Suggest** two possible reasons for the change in the Gross Profit Margin from 2029 to 2030.
- Explain** why the owner's plan of action will **not** lead to an improvement in the Gross Profit Margin.
- State** one way of improving the Gross Profit Margin without affecting Asset Turnover.
- State** two pieces of non-financial information the owner may want to see to assess the quality of his inventory.
- State** one limitation of relying on the Gross Profit Margin to assess the firm's profitability.

In 2030, Sales revenue was \$580 000. The owner's plan to increase advertising will increase Other Expenses by \$13 000, and he anticipates this will lead to a 5% increase in Net Sales.

- Explain** what needs to happen in order for the owner's plan to lead to an improvement in the Net Profit Margin.
- Assuming the Gross Profit Margin remains unchanged in 2031, **model** the effect of the owner's plan by:
 - preparing a basic Income Statement
 - calculating the Net Profit Margin for Campbell Paints for 2031.



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Exercise 18.10

Vertical analysis of the Income Statement

Woolly Good is a clothing shop, and it has provided a vertical analysis of its Income Statements for the year ending 31 December 2029 and 2030:



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WOOLLY GOOD				
Income Statement for the year ended 31 December				
	2029		2030	
	\$	%	%	%
Sales revenue	90 000	100	120 000	100
Less Cost of Goods Sold	37 800	42	54 000	45
Gross Profit	52 200	58	66 000	55
Less Inventory loss	1 800	2	2 400	2
Adjusted Gross Profit	50 400	56	63 600	53
Less Other expenses				
Advertising	11 700	13	13 200	11
Rent expense	9 000	10	12 000	10
Wages	15 300	17	21 600	18
Net Profit	14 400	16	16 800	14

Required

- Referring to the information provided, **list** three possible reasons for the increase in Sales revenue in 2030.
- State** whether overall expense control has improved or worsened in 2030. **Justify** your answer.
- Explain** how a reduction in the Gross Profit Margin has been beneficial for the firm in 2030.
- State** two reasons why the owner should **not** be concerned about the decrease in the Adjusted Gross Profit Margin.
- Suggest** two strategies the firm could adopt in 2031 to improve its control of wages.
- Suggest** one possible reason to explain why Rent expense increased.
- Discuss** whether the change in advertising has been beneficial to the firm's overall profitability in 2030.
- State** two pieces of non-financial information the owner could use to assess the firm's relationship with its staff.

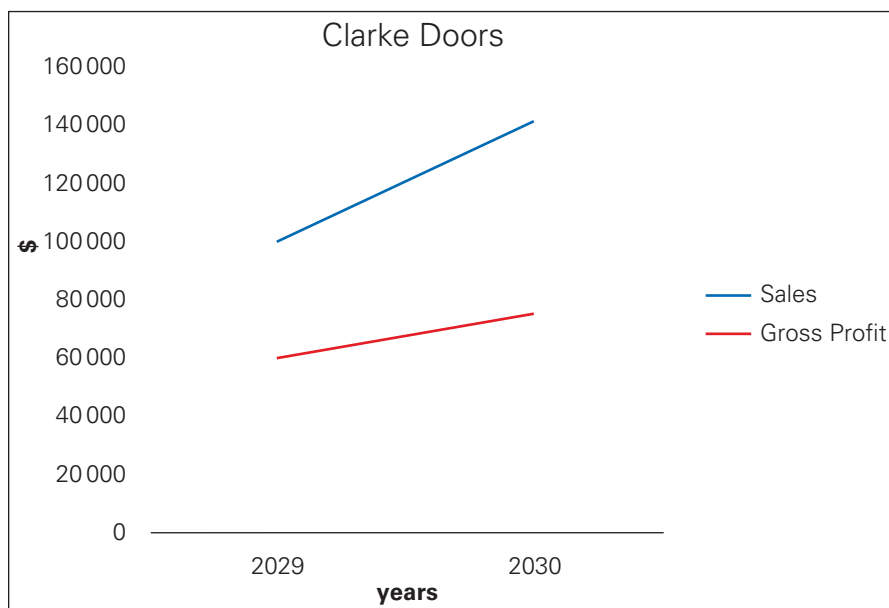




Exercise 18.11

Analysing profitability

Clarke Doors is owned by Bryan Clarke and has provided the following information relating to its performance in 2029 and 2030:



Additional information:

- Total Assets was \$350 000 in both 2029 and 2030.
- Return on Owner's Investment and Net Profit Margin did not change from 2029 to 2030.
- When Bryan started the business in 2000 he employed John Willesee as the bookkeeper. Bryan recently received an approach from a bookkeeping company called Quick-a-Count, which promised it could provide the same service for 15% less than Bryan pays John, but Bryan has heard that it also owns labour hire companies overseas who regularly exploit their employees.

Required

- Based on the information provided, **explain** whether the following indicators would have improved or worsened in 2030:
 - Asset Turnover
 - Gross Profit Margin.
- Explain** one possible cause of the change in the Asset Turnover of Clarke Doors in 2030.
- Explain** one possible cause of the change in the Gross Profit Margin of Clarke Doors in 2030.
- Referring to Sales revenue, Gross Profit and Net Profit Margin, **discuss** the expense control of Clarke Doors in 2030.
- Suggest** one possible action Bryan could take to improve the Gross Profit Margin in 2031.
- Referring to financial and ethical considerations, **discuss** whether using Quick-a-Count would be good for the short- and long-term profitability of Clarke Doors.



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Ethical considerations



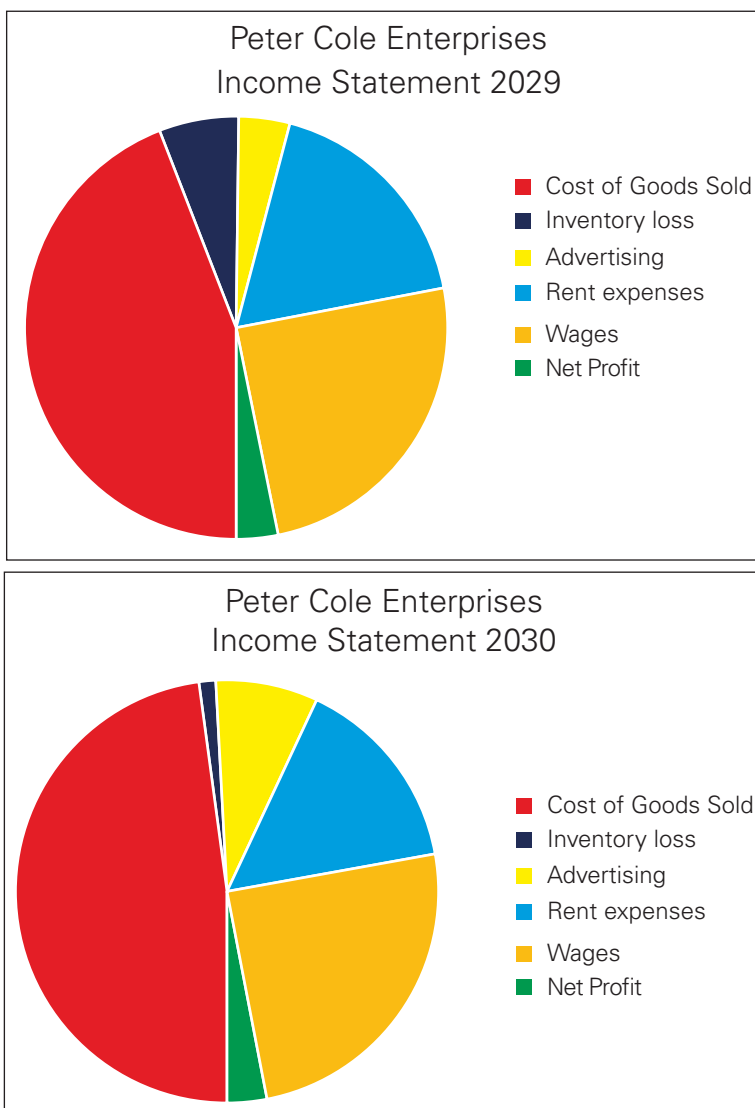
Exercise 18.12

Analysing profitability

Peter Cole Enterprises has presented the following graphs showing each expense as a percentage of sales for 2029 and 2030:



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Additional information:

- Sales revenue was \$100 000 in 2029 and \$120 000 in 2030.
- Rent expense was \$18 000 in each year.
- Total Assets remained the same, but the Debt Ratio decreased in 2030.

Required

- Referring to information provided, **identify** one reason for the increase in Sales revenue in 2030.
- Referring to the graphs, **explain** why the Rent expense segment (the light blue segment) is smaller in 2030.
- Suggest** two strategies Peter may have used to cause the change in Inventory loss in 2030.
- State** whether Wages expense (in dollar terms) would be higher, lower or the same in 2030. **Justify** your answer.
- Explain** why the Gross Profit Margin would be lower in 2030.
- Discuss** whether profitability improved, worsened or remained the same in 2030.

The background of the page features a light blue gradient with several coins and water splashes. The coins, which appear to be Euro coins, are scattered across the page, some partially submerged in water splashes that create white foam and bubbles. The overall aesthetic is clean and modern, with a focus on financial themes.

Chapter 19

Evaluating performance: liquidity

Learning intentions

After completing this chapter, you should be able to:

- **define** 'liquidity'
- **analyse** liquidity and efficiency using trends, variances, benchmarks and liquidity indicators
- **calculate** and **explain** various liquidity and efficiency indicators
- **explain** the relationship between liquidity and efficiency indicators
- **analyse** and **evaluate** liquidity and efficiency using financial and non-financial information
- **suggest**, and **model** the effect of strategies to improve liquidity and manage inventory, Accounts Receivable and Accounts Payable.
- **discuss** ethical considerations in business decision-making.

Key terms

After completing this chapter, you should be familiar with the following terms:

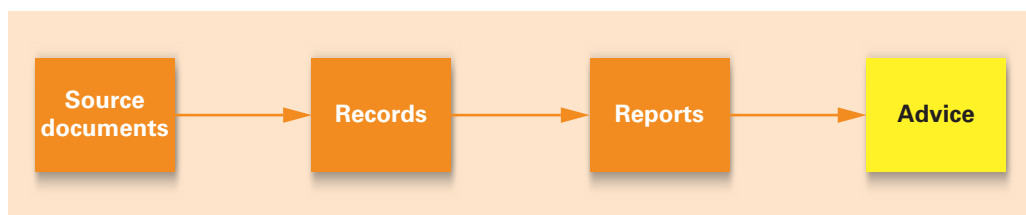
- Working Capital Ratio (WCR)
- Quick Asset Ratio (QAR).

Course advice:

In VCE Accounting students are not required to calculate financial indicators in the examination. However, calculations are included in this text as an essential mechanism for understanding the information these indicators present.



19.1 Assessing liquidity



Chapter 18 discussed the tools and techniques that can be employed to evaluate profitability, with the aim of providing business owners with advice to aid their decision-making. This chapter takes a similar approach but concentrates instead on an assessment of liquidity.

Liquidity refers to the ability of a business to meet its short-term debts as they fall due. Any assessment of liquidity should begin by analysing the *level* of liquid funds that is available to meet short-term obligations. This will obviously include cash that is already on hand, but it will also include cash that can be generated from inventory and Accounts Receivable. However, it should also analyse the *speed* at which those liquid resources become available so that we can assess whether the cash will be available in time to meet the firm's short-term obligations.

Tools for assessing liquidity

The same types of tools that were used to assess profitability can be applied to an assessment of liquidity:

- trends
- benchmarks
- variances
- liquidity indicators.

In terms of identifying *trends* and *variances*, the primary sources of information will be the Cash Flow Statement and Budgeted Cash Flow Statement, which detail the actual and expected inflows and outflows of cash. (This was covered in detail in Chapter 17.) In fact, the Budgeted Cash Flow Statement is essential to an analysis of liquidity, as it details all expected cash inflows and cash outflows, and states categorically whether the business will be able to meet its cash obligations for the coming year.

In Chapter 18, we assessed profitability against three key benchmarks, and these can be applied to assess liquidity:

- liquidity in *previous periods*
- *budgeted* liquidity
- liquidity of *similar businesses*.

In addition, some of the liquidity indicators have their own specific benchmark against which liquidity can be measured.

Indicators for assessing liquidity

Further, the following indicators can be used to assess the *level* of liquidity:

- Working Capital Ratio (WCR)
- Quick Asset Ratio (QAR)
- Cash Flow Cover (CFC), covered in Chapter 11.

The following efficiency indicators can be used to assess the *speed* of liquidity:

- Inventory Turnover (ITO), covered in Chapter 9
- Accounts Receivable Turnover (ARTO), covered in Chapter 6
- Accounts Payable Turnover (APTO), covered in Chapter 5.



Review questions 19.1

- 1 **Define** the term 'liquidity'.
- 2 **Explain** the role of the Budgeted Cash Flow Statement in evaluating liquidity.
- 3 **State** three indicators that are used to assess the level of liquidity.
- 4 **State** three indicators that are used to assess the speed of liquidity.



19.2 Working Capital Ratio (WCR)

The **Working Capital Ratio (WCR)** assesses liquidity by comparing current assets and current liabilities. Specifically, the Working Capital Ratio measures how many dollars of current assets are available to meet each dollar of current liabilities. As a result, the ratio indicates whether the business will be able to meet its short-term debts (its current liabilities) using cash generated from its current assets.

Figure 19.1 shows how the Working Capital Ratio is calculated:

Figure 19.1 Formula: Working Capital Ratio (WCR)

$$\text{Working Capital Ratio (WCR)} = \frac{\text{Current assets}}{\text{Current liabilities}} = \text{Ratio Current Assets : 1}$$

Working Capital Ratio (WCR)

a liquidity indicator that measures the ratio of current assets to current liabilities, to assess the firm's ability to meet its short-term debts

Grant's Glasses has presented the following extract from its Balance Sheet:

Example

GRANT'S GLASSES Balance Sheet (extract) as at 31 December 2030			
	\$		\$
Current Assets		Current Liabilities	
Bank	3 500	Accounts Payable	20 000
Accounts Receivable	12 500	Loan – GV Bank	12 000
Inventory	34 000	Accrued wages	500
Prepaid rent expense	1 000	GST Clearing	1 500
Total Current Assets	51 000	Total Current Liabilities	34 000

The Working Capital Ratio would be calculated as shown in Figure 19.2:

Figure 19.2 Calculation: Working Capital Ratio (WCR)

$$\begin{aligned}\text{Working Capital Ratio (WCR)} &= \frac{\$51\,000}{\$34\,000} \\ &= 1.5:1\end{aligned}$$

The Working Capital Ratio shows that Grant's Glasses has \$1.50 of current assets for every \$1 of current liabilities.

Assessing the Working Capital Ratio

As was stated earlier, the Working Capital Ratio for the current period can be compared against *previous periods* or the *budgeted* figure to assess whether it has increased or decreased, but this will not allow us to determine whether it is satisfactory or unsatisfactory.

The Working Capital Ratio is based on the idea that the cash that can be generated from current assets (in the next 12 months) should be enough to meet the short-term debts that fall due in that time. As a result, *satisfactory liquidity* should exist if the Working Capital Ratio is **at least 1:1**, as this would indicate that there is at least \$1 of current assets available to meet every \$1 of current liabilities, and the firm would be able to meet all its short-term debts as they fall due. Grant's Glasses actually has \$1.50 worth of current assets for every dollar of current liabilities, so its level of liquidity is more than satisfactory.

A Working Capital Ratio of *less than 1:1* means liquidity may be *unsatisfactory* and the business may not be able to meet its debts as they fall due, as it has insufficient current assets to meet its current liabilities. If the situation is not addressed, and Accounts Payable and others are unable to be paid, the business may be forced into liquidation, with its assets sold to raise funds to pay its debt.

Working Capital Ratio less than 1:1

If the Working Capital Ratio is less than 1:1, the owner may be required to:

- make a (cash) capital contribution
- seek additional finance by entering into, or extending, an overdraft facility
- take out a loan to purchase non-current assets.

In the long term, borrowing may worsen the cash situation, as the servicing of the debt would require cash to repay both the principal and interest. However, in the short term, the survival of the business may depend on the extra finance provided by a loan.



Working Capital Ratio greater than 1:1

Although it is beneficial for the Working Capital Ratio to be above 1:1, a business owner should also be wary of having a Working Capital Ratio that is too high, as this may indicate that the business has excess current assets that are idle and not being employed effectively.

This can be the case for a number of different current assets:

- **Bank**
Business bank accounts pay very small amounts of interest, thus there is little to gain from keeping more cash in the bank than is necessary to meet obligations (expected and unexpected). A business would be better off using excess cash to retire debt, expand operations or even to make other investments (e.g. a term deposit) where it will be able to earn a greater return on its funds.
- **Inventory**
A large amount of inventory could incur additional storage costs and increase the possibility of inventory loss, damage or technical obsolescence, which could require an Inventory write-down.
- **Accounts Receivable**
A large Accounts Receivable figure might indicate an increasing group of 'ageing' Accounts Receivable. The older a debt becomes, the less likely it is to be received and the greater the probability that the debt will go 'bad'; that is, become uncollectible.

Where the Working Capital Ratio is too high, the owner may:

- use excess cash by:
 - repaying debts
 - purchasing non-current assets
 - taking extra drawings
- allow inventory levels to run down before reordering
- implement strategies to collect amounts outstanding from Accounts Receivable.

Bank overdraft

Although a bank overdraft is a current liability and must be included as such in the calculation of the Working Capital Ratio, it is unlikely that an overdraft will be called in (for repayment) as long as it remains under the limit. Indeed, the extra amount available under a bank overdraft may represent a source of additional funds, and this must be considered when analysing what the Working Capital Ratio reveals about liquidity. This is an extra variable to consider when assessing the adequacy of the Working Capital Ratio.



Review questions 19.2

- 1 **State** what is measured by the Working Capital Ratio (WCR).
- 2 **Show** the formula to calculate the Working Capital Ratio.
- 3 **Explain** why the Working Capital Ratio should be at least 1:1.
- 4 **Explain** the dangers of having a Working Capital Ratio that is too high.
- 5 **State** two actions the owner may be required to take if Working Capital Ratio is:
 - too low
 - too high.
- 6 **Explain** how the availability of a bank overdraft might affect an analysis of the Working Capital Ratio.



19.3 Quick Asset Ratio (QAR)

Underlying the use of the Working Capital Ratio to assess the level of liquidity is the assumption that all current assets can be liquidated immediately if cash is needed to meet short-term debts. However, there are some practical difficulties with this assumption in relation to:

- **Inventory**

Most trading businesses would already be trying to sell their inventory as fast as they can, so there is no guarantee that all their inventory will suddenly be able to be sold just because the firm is facing liquidity problems. And there is virtually no chance of this happening immediately. As a result, it is questionable whether these assets can be relied on as sources of liquid funds.

- **Prepaid expenses**

Prepaid expenses cannot normally be 'liquidated' or converted back into cash. If the business has entered into a contract and paid for a 12-month lease, it is not likely to be able to ask for a refund, even if it faces liquidity difficulties.

In order to overcome these deficiencies, the **Quick Asset Ratio (QAR)** can be used as an alternative indicator of the level of liquidity. It assesses the firm's ability to meet its *immediate* debts using its *immediate* assets.

Figure 19.3 shows how the Quick Asset Ratio is calculated:

Quick Asset Ratio (QAR)

a liquidity indicator that measures the ratio of quick assets to quick liabilities, to assess the firm's ability to meet its immediate debts

Figure 19.3 Formula: Quick Asset Ratio (QAR)

$$\begin{aligned} \text{Quick Asset Ratio (QAR)} &= \frac{\text{Current assets (excluding inventory and prepaid expenses)}}{\text{Current liabilities}} \\ &= \text{Ratio Quick Assets : 1} \end{aligned}$$

The Quick Asset Ratio is a modification of the Working Capital Ratio as it excludes *inventory* and *prepaid expenses* from current assets as they may not be easily converted to cash in a time of crisis.

Example

Wilson's White Goods has presented the following extract from its Balance Sheet:

WILSON'S WHITE GOODS Balance Sheet (extract) as at 31 December 2030			
	\$		\$
Current Assets		Current Liabilities	
Accounts Receivable	15 000	Bank	5 000
Inventory	51 000	Accounts Payable	17 000
Prepaid rent expense	9 000	Accrued electricity expense	1 000
		GST Clearing	2 000
Total Current Assets	75 000	Total Current Liabilities	25 000

A comparison of the Working Capital Ratio and Quick Asset Ratio is shown in Figure 19.4:

Figure 19.4 Comparison: Working Capital Ratio and Quick Asset Ratio

Working Capital Ratio	Quick Asset Ratio
$\text{WCR} = \frac{\$75\,000}{\$25\,000}$ $= 3:1$	$\text{QAR} = \frac{\$15\,000}{\$25\,000}$ $= 0.6:1$

This data indicates that although the business has \$3 of current assets for each \$1 of current liabilities, it only has 60c of quick assets for every \$1 of quick liabilities.

Assessing the Quick Asset Ratio

Although the Quick Asset Ratio is a slightly different measure of liquidity, the benchmarks for assessing its adequacy remain the same as those used to assess the Working Capital Ratio. That is, the Quick Asset Ratio should be **at least 1:1** but can also be compared with the Quick Asset Ratio from *previous periods* or the *budget* to identify increases or decreases.

In this case, the **Working Capital Ratio** indicates that the business has \$3 of current assets for every \$1 of current liabilities and, as a result, its liquidity is *satisfactory*; there should be sufficient current assets to meet its current liabilities as they fall due.

However, the **Quick Asset Ratio** suggests that liquidity is *unsatisfactory* because the firm will have only 60c of quick assets to pay quick liabilities. What does this mean for liquidity? Will the business be able to meet its short-term debts or not?

The fact that the **Working Capital Ratio** is *satisfactory* but the **Quick Asset Ratio** is *unsatisfactory* is a direct result of the fact that the business has a large investment in its *inventory* and *prepaid expenses*. Given the difficulties in liquidating prepaid expenses, the firm's ability to meet its debts will depend heavily on its ability to sell its inventory on time: if the inventory can be sold, the firm should be able to meet its debts as they fall due; if not, liquidity problems may result.

Study tip

Although prepaid expenses are excluded from quick assets, accrued expenses are included as quick liabilities as they will still have to be repaid.



Review questions 19.3

- State** what is measured by the Quick Asset Ratio (QAR).
- Show** the formula to calculate the Quick Asset Ratio.
- Explain** why the following items are excluded from the calculation of the Quick Asset Ratio:
 - inventory
 - prepaid expenses.
- Explain** what is indicated if the Working Capital Ratio is satisfactory, but the Quick Asset Ratio is unsatisfactory.



19.4 Cash Flow Cover (CFC)

One of the key problems with using both the Working Capital Ratio and the Quick Asset Ratio is that they rely on *static items* to measure future cash flows. That is, the information used in both ratios comes from the Balance Sheet, so it provides no real indication of the cash flows of the business.

In contrast, the Cash Flow Cover (CFC) assesses liquidity using the actual cash that the business generates from its Operating activities to meet its financial obligations. Specifically, it measures the number of times average current liabilities can be met using the Net Cash Flows from Operating Activities.

Figure 19.5 shows how the Cash Flow Cover is calculated:

Figure 19.5 Formula: Cash Flow Cover (CFC)

Cash Flow Cover (CFC) =
$$\frac{\text{Net Cash Flows from Operating Activities}}{\text{Average current liabilities}}$$

Like many indicators, Cash Flow Cover uses average current liabilities to account for changes during the period.

If a business cannot generate sufficient cash from its day-to-day Operating activities, it will require regular contributions from the owner or external financiers in order to meet its loan repayments and provide cash for the owner’s drawings.

Example

Jenny’s Jumpers has provided the following information as at 30 June:

	2029	2030
Net Cash Flows from Operating Activities	\$40 000	\$36 000
Current liabilities at start	\$18 000	\$14 000
Current liabilities at end	\$14 000	\$10 000

Clearly, there is less cash available from Operating Activities in 2030, but has liquidity improved or worsened as a result?

The Cash Flow Cover for each year would be calculated as shown in Figure 19.6:

Figure 19.6 Calculation: Cash Flow Cover (CFC)

2029	2030
$\begin{aligned} \text{QAR} &= \frac{\$40\,000}{(\$18\,000 + \$14\,000) / 2} \\ &= \frac{\$40\,000}{\$16\,000} \\ &= 2.5 \text{ times per year} \end{aligned}$	$\begin{aligned} \text{CFC} &= \frac{\$36\,000}{(\$14\,000 + \$10\,000) / 2} \\ &= \frac{\$36\,000}{\$12\,000} \\ &= 3 \text{ times per year} \end{aligned}$

In 2029, Net Cash Flows from Operating activities was able to pay average current liabilities **2.5 times**. This has increased to **3 times** in 2030, indicating **improved liquidity**. Why did this happen? Even though Net Cash Flows from Operating Activities *decreased* (from \$40 000 to \$36 000) in 2030, average current liabilities *decreased by proportionately more* (from \$16 000 to \$12 000), leading to an improvement in the ability of the firm to pay its short-term debts using its operating cash flows.

Assessing the Cash Flow Cover

Unlike the Working Capital Ratio and Quick Asset Ratio, there is no set benchmark at which the Cash Flow Cover would be considered satisfactory. However, it can be compared against the Cash Flow Cover from *previous periods* or the *budgeted* Cash Flow Cover to assess whether it has improved or worsened, or against the Cash Flow Cover of *similar businesses*. In general, the longer the period being examined in the ratio, the more times the business would expect the average current liabilities to be covered.



Review questions 19.4



- 1 **State** what is measured by the Cash Flow Cover (CFC).
- 2 **Show** the formula to calculate the Cash Flow Cover.
- 3 **State** three benchmarks that could be used to assess the adequacy of the Cash Flow Cover.



19.5 The speed of liquidity

Our analysis of liquidity so far has been predicated on the notion that a business will struggle to meet its debts as they fall due if its current/quick assets are less than its current/quick liabilities. This assessment of the *level* of liquidity used the Working Capital Ratio and the Quick Asset Ratio to assess how much cash the business could generate to meet its short-term obligations.

However, businesses are not static entities; they are constantly generating sales, which will then turn into cash, which will then be used to purchase more inventory, to generate more sales, etc. Thus, the level of liquidity is, on its own, an inadequate measure of a firm's ability to meet its debts.

In fact, a business can survive in spite of an unsatisfactory level of liquidity if the *speed* of its trading cycle is fast enough. That is, if a business can sell its inventory (and collect the cash from its customers) before that cash is needed, it will be able to survive even with a very low Working Capital Ratio. Businesses such as this may never have a high level of cash on hand but can survive because their *turnover* is so fast.

Therefore, an assessment of liquidity must also consider the speed of the firm's:

- Inventory Turnover (ITO)
- Accounts Receivable Turnover (ARTO)
- Accounts Payable Turnover (APTO).

In common with Asset Turnover (from Chapter 18), these indicators actually assess *efficiency*: the ability of the firm to manage assets like its inventory, Accounts Receivable and Accounts Payable. However, because they have a direct and significant effect on cash flows (namely, cash sales, receipts from Accounts Receivable and payments to Accounts Payable), they also have a significant effect on liquidity.



Review questions 19.5



- 1 **Explain** how a firm with a high turnover can remain solvent despite an unsatisfactory level of liquidity.
- 2 **Define** the term 'efficiency' as it relates to the assessment of business performance.



19.6 Inventory Turnover (ITO)

As the main source of revenue, inventory is also the main source of cash inflows. But before cash can be collected from cash sales or Accounts Receivable, the inventory must first be sold. Inventory Turnover (ITO) assesses how effectively the firm has managed its inventory holdings, by calculating the average number of days taken to sell inventory.

Inventory Turnover is calculated as shown in Figure 19.7:

Figure 19.7 Formula: Inventory Turnover (ITO)

$$\text{Inventory Turnover (ITO)} = \frac{\text{Average inventory}}{\text{Cost of Goods Sold}} \times 365$$

Average Accounts Receivable is used in an attempt to reflect the amount owed to a business throughout the period, while multiplying by 365 converts the turnover into days.

Fast Inventory Turnover, as measured by low days, means that, on average, inventory is sold quickly. This will enhance the firm’s ability to generate cash from the sale of inventory and assist its liquidity.

Example

Markwell Mirrors has provided the following information for the year ended 30 June:

	2029	2030
Average inventory	\$25 000	\$20 000
Cost of Goods Sold	\$90 000	\$100 000

The Inventory Turnover would be calculated as shown in Figure 19.8:

Figure 19.8 Calculation: Inventory Turnover (ITO)

2029	2030
$\text{ITO} = \frac{\$25\,000}{\$90\,000} \times 365$ $= 101^* \text{ days}$	$\text{ITO} = \frac{\$20\,000}{\$100\,000} \times 365$ $= 73 \text{ days}$

* Rounded to nearest day

The figures indicate that in 2029, it took an average of 101 days to sell inventory. The following year, Inventory Turnover decreased favourably by 28 days; it only took 73 days (on average) to turn inventory into sales in 2030.

In 2030, Markwell Mirrors not only sold more inventory (as is shown by the increase in Cost of Goods Sold from \$90 000 to \$100 000), but it held less inventory on hand (\$25 000 in 2029, down to \$20 000 in 2030). Both factors are responsible for the improvement in Inventory Turnover.

Assessing Inventory Turnover

In the preceding example, the benchmark for assessing Inventory Turnover was the *previous period*, to identify an improvement. In terms of assessing whether Inventory Turnover is satisfactory, it can be compared against the *budgeted* figure or the Inventory Turnover of *similar firms*.

However, an assessment of Inventory Turnover must also consider the *nature of the goods sold*. Goods that are perishable, such as fresh produce, or susceptible to technological obsolescence, like phones, should have a fast Inventory Turnover so they are not subject to inventory loss or write-down issues. Relatively cheap items should also be sold much faster than more expensive items, such as luxury cars.

Inventory Turnover: too slow

If Inventory Turnover is too slow (that is, a high number of days), the firm will be less able to generate sales and, therefore, less able to generate cash inflows (from cash sales and receipts from Accounts Receivable) in time to meet debts as they fall due.

In this case, the business may need to employ strategies to:

- *increase sales*, such as advertising, changing selling prices or changing the inventory mix
- *decrease the level of inventory on hand* by ordering less, ordering smaller amounts more frequently (just-in-time ordering) or replacing slow-moving inventory lines.

Study tip

See Section 10.5 for a detailed discussion of these strategies to increase sales.

Inventory Turnover: too fast?

It is also possible that Inventory Turnover could be too fast. Although the business would be generating high sales volume, it may be because the selling price is too low, and this would be a loss of potential revenue and profit. Alternatively, it may be because the firm is holding too little inventory. If this is the case, costs such as delivery may be higher (because deliveries are more frequent), and the business could lose the possibility of earning discounts for buying in bulk.

Because it only measures the average time taken to sell inventory, decisions such as these should not be made on an assessment of Inventory Turnover alone. It is important that the owner also analyses the inventory cards so that he or she has detailed information about the speed at which *specific lines of inventory* are selling so that appropriate decisions can be made.

Inventory management

There are certain strategies a business owner can employ to ensure that inventory is managed wisely, enabling appropriate Inventory Turnover:

- Maintain an appropriate inventory mix.
- Promote the sale of complementary goods.
- Ensure inventory is up to date.
- Rotate inventory.
- Determine an appropriate level of inventory on hand.
- Market strategically and effectively (and ethically).
- Appoint an Inventory Manager.

Study tip

See Section 9.8 for a detailed discussion of these strategies to manage Inventory.



Review questions 19.6

- 1 **State** what is measured by Inventory Turnover (ITO).
- 2 **Show** the formula to calculate Inventory Turnover.
- 3 **Explain** why fast Inventory Turnover is beneficial for liquidity.
- 4 **State** two actions that an owner could take to improve Inventory Turnover.
- 5 **Explain** one advantage and one disadvantage of fast Inventory Turnover.
- 6 **Explain** the role of inventory cards in an analysis of Inventory Turnover.
- 7 **List** four strategies that businesses should use to manage their inventory.



19.7 Accounts Receivable Turnover (ARTO)

In businesses that sell predominantly on a cash basis, the time taken to turn inventory into sales (Inventory Turnover) also measures the time taken to generate cash; as soon as the inventory is sold, the cash is collected. Businesses that make credit sales must wait a little longer: first until the inventory is sold, then again until the cash is received from Accounts Receivable.

Thus, how quickly cash is collected from Accounts Receivable is an important factor influencing liquidity. Accounts Receivable Turnover (ARTO) provides this information, assessing how effectively the firm has managed its Accounts Receivable by calculating the average number of days it takes a firm to collect cash from its Accounts Receivable.

Accounts Receivable Turnover is calculated as shown in Figure 19.9:

Figure 19.9 Formula: Accounts Receivable Turnover (ARTO)

$$\text{Accounts Receivable Turnover (ARTO)} = \frac{\text{Average Accounts Receivable}}{\text{Net credit sales (plus GST)}} \times 365$$

Average Accounts Receivable is used in an attempt to reflect the amount owed to a business throughout the period, while multiplying by 365 converts the turnover into days.

Fast Accounts Receivable Turnover means it takes (on average) a few days to collect cash; if cash is collected quickly, it can then be used to meet other debts as they fall due.

Let's return to Markwell Mirrors, with some information added:

Example

Markwell Mirrors has provided the following information for the year ended 30 June:

	2029	2030
Inventory Turnover	101 days	73 days
Average Accounts Receivable	\$33 000	\$38 500
Cash sales (including GST)	\$17 600	\$18 700
Credit sales (including GST)	\$198 000	\$220 000
Sales returns (including GST)	\$8 800	\$9 900
Credit terms offered to customers	30 days	30 days

The Accounts Receivable Turnover would be calculated as shown in Figure 19.10:

Figure 19.10 Calculation: Accounts Receivable Turnover (ARTO)

2029	2030
$\text{ARTO} = \frac{\$33\,000}{\$198\,000 - \$8\,800} \times 365$	$\text{ARTO} = \frac{\$38\,500}{\$220\,000 - \$9\,900} \times 365$
$= \frac{\$33\,000}{\$189\,200} \times 365$	$= \frac{\$38\,500}{\$210\,100} \times 365$
$= 64^* \text{ days}$	$= 67^* \text{ days}$

*Rounded to nearest day

Study tip

Be careful when explaining changes in ITO and ARTO; a *decrease* in days is an *improvement* in liquidity.

The figures indicate that in 2029 it took an average of **64 days** to collect cash from Accounts Receivable, but in 2030 this *increased unfavourably* to **67 days**. This means that, on average, it took *three days longer* to generate cash from Accounts Receivable in 2030, because although Net credit sales increased (from **\$189 200** to **\$210 100**), average Accounts Receivable increased by proportionately more (from **\$33 000** to **\$38 500**).

Turning inventory into cash

Given that Markwell Mirrors sells most of its inventory on credit, its ability to meet its commitments will depend on the time taken to turn the inventory into sales (ITO) and then the time taken to turn Accounts Receivable into cash (ARTO). Thus, in 2030 it will take the business *140 days* to turn inventory into cash: Inventory Turnover 73 days + Accounts Receivable Turnover 67 days.

Assessing Accounts Receivable Turnover

The three-day increase in the preceding example may not be a significant increase, but the fact that Accounts Receivable continue to take more than 60 days is of grave concern, because the firm offers only *30 days credit* to its customers. Accounts Receivable Turnover can be assessed against a *previous period* to identify increases or decreases, but it is the **credit terms offered to customers** (and perhaps the *budgeted* Accounts Receivable Turnover) that should be used to determine whether Accounts Receivable Turnover is satisfactory.

Even if Accounts Receivable Turnover is within the credit terms, it should be noted that it is an *average* figure; some Accounts Receivable may be repaying within the credit terms, while others may be repaying late. In conjunction with Accounts Receivable Turnover, the owner will need to analyse the Accounts Receivable accounts in the General Ledger so that each individual Account Receivable can be managed appropriately.

Study tip

See Section 6.7 for a detailed discussion of these strategies to manage Accounts Receivable.

Ethical considerations**Managing Accounts Receivable**

There are certain strategies a business owner can employ to ensure that Accounts Receivable are managed wisely to ensure an appropriate Accounts Receivable Turnover:

- Offer discounts for quick settlement.
- Send invoices promptly.
- Conduct extensive credit checks.
- Send reminder notices.
- Threaten legal action.
- Employ a debt collection agency.
- Deny access to credit facilities.
- Develop a strong relationship with each customer.
- Appoint an Accounts Receivable Officer/Clerk.
- Consider non-financial information.

In all of this, the business owner and their employees must conduct themselves legally and ethically to ensure the business operates within the law and also in a socially responsible manner.

**Review questions 19.7**

- 1 **State** what is measured by Accounts Receivable Turnover (ARTO).
- 2 **Show** the formula to calculate Accounts Receivable Turnover.
- 3 **Explain** why Accounts Receivable Turnover is crucial to an assessment of liquidity.
- 4 **Explain** the importance of credit terms offered to customers in assessing Accounts Receivable Turnover.
- 5 **List** the strategies a business could use to improve its Accounts Receivable Turnover, in the order in which they should be implemented.

**19.8 Accounts Payable Turnover (APTO)**

Of all the obligations a trading firm must meet, the most persistent is paying for inventory. If inventory is purchased for cash, the business will leave itself no time to sell the inventory and collect the cash before the payment must be made. On the other hand, credit purchases allow the firm some time to sell the inventory and collect the cash before the supplier must be paid.

However, it is still important that Accounts Payable are paid on time, and this means the business needs information on how long it is taking to pay its Accounts Payable. Accounts Payable Turnover (APTO) provides this information as it measures the average number of days taken to pay Accounts Payable, indicating the effectiveness of the firm in managing its Accounts Payable.

Accounts Payable Turnover is calculated as shown in Figure 19.11:

Figure 19.11 Formula: Accounts Payable Turnover (APTO)

$$\text{Accounts Payable Turnover (APTO)} = \frac{\text{Average Accounts Payable}}{\text{Net credit purchases (plus GST)}} \times 365$$

Markwell Mirrors has provided the following information for the year ended 30 June:

Example

	2029	2030
Inventory Turnover	101 days	73 days
Accounts Receivable Turnover	64 days	67 days
Average Accounts Payable	\$11 000	\$13 200
Credit purchases (including GST)	\$77 000	\$99 000
Purchase returns (including GST)	\$3 850	\$4 950
Credit terms offered by suppliers	60 days	60 days

The Accounts Payable Turnover would be calculated as shown in Figure 19.12:

Figure 19.12 Calculation: Accounts Payable Turnover (APTO)

2029	2030
$\text{APTO} = \frac{\$11\,000}{\$77\,000 - \$3\,850} \times 365$ $= \frac{\$11\,000}{\$73\,150} \times 365$ $= 55^* \text{ days}$	$\text{APTO} = \frac{\$13\,200}{\$99\,000 - \$4\,950} \times 365$ $= \frac{\$13\,200}{\$94\,050} \times 365$ $= 51^* \text{ days}$

*Rounded to nearest day

The figures indicate that in 2029 Accounts Payable were paid every **55 days**; that is, **five days** before the credit terms expired. In 2030 this *decreased* by four days to **51 days**; that is, **nine days** before the credit terms expired. This was because although net credit purchases and average Accounts Payable increased, average Accounts Payable increased by a smaller proportion.

Assessing Accounts Payable Turnover

Accounts Payable Turnover can be assessed against a *previous period* to identify increases or decreases, but in common with Accounts Receivable Turnover, it is the **credit terms offered by suppliers** (and perhaps the *budgeted* Accounts Payable Turnover) that should be used to determine whether Accounts Payable Turnover is satisfactory.

Managing Accounts Payable

Having access to credit therefore makes it critical that Accounts Payable are managed effectively, and this can be done by following some broad principles:

- Develop a strong relationship with each supplier.
- Pay within, but as close as possible to, the credit terms.
- Pay early to earn discount revenue (if available, and affordable).
- Check each Statement of Account against the Accounts Payable ledger account.
- Appoint an Accounts Payable Officer/Clerk.
- Consider non-financial information.
- Communicate in a timely fashion.

In all of these dealings, acting in an ethical manner remains essential, as it does in all business decision-making.

Study tip

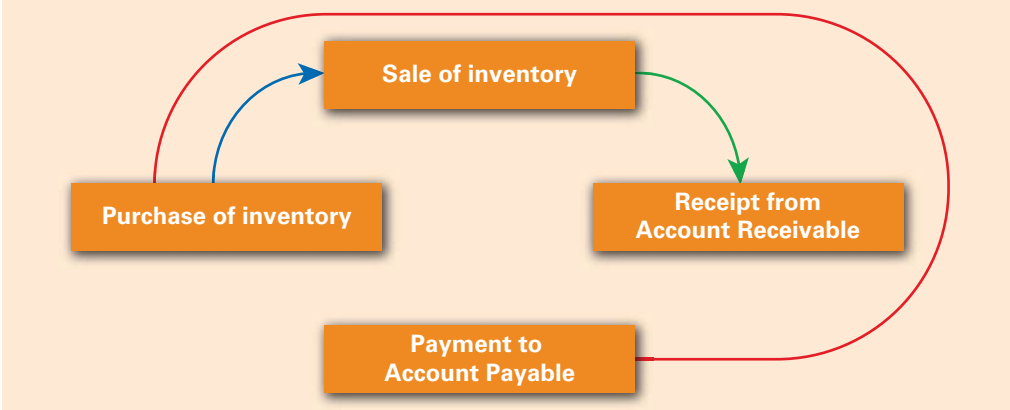
See Section 5.6 for a detailed discussion of these strategies to manage Accounts Payable.

Inventory Turnover, Accounts Receivable Turnover and Accounts Payable Turnover

The firm’s ability to pay its Accounts Payable will rely heavily on its ability to generate cash from its inventory. This means Accounts Payable Turnover is reliant on Inventory Turnover and, if the business deals mainly on credit, Accounts Receivable Turnover.

Figure 19.13 shows this relationship between Inventory Turnover, Accounts Receivable Turnover and Accounts Payable Turnover in what is sometimes called the ‘cash cycle’:

Figure 19.3 Cash cycle



The days between the purchase of inventory and sale of inventory are measured by the **Inventory Turnover**; the days between the sale of inventory and the receipts from the Accounts Receivable are measured by the **Accounts Receivable Turnover**; and the days between the purchase of the inventory and the payments to the Accounts Payable are measured by the **Accounts Payable Turnover**.

In most cases, a business will want its ITO and ARTO to be *fast*, whereas it will want its APTO to be as *slow* as possible (without exceeding credit terms). Selling inventory for cash and buying inventory on credit provides time for the business to sell its inventory and collect the cash before it has to repay its Accounts Payable.

Example

Markwell Mirrors has provided the following information for the year ended 30 June:

Indicator	2030	Benchmark
Inventory Turnover	73 days	2029 Inventory Turnover: 101 days
Accounts Receivable Turnover	67 days	Credit terms offered to customers: 30 days
Accounts Payable Turnover	51 days	Credit terms offered by suppliers: 60 days

In this example, it takes **73 days (ITO)** to sell the inventory and then a further **67 days (ARTO)** to receive cash from Accounts Receivable, meaning it takes **140 days (73 days + 67 days)** to generate cash. Although inventory ITO is faster than last year, it is still too slow, and ARTO is over double the credit terms offered to customers, meaning some changes in management are required.

With this in mind, the fact that the business is only taking **51 days (APTO)** to pay Accounts Payable is concerning, as it means that the cash outflows are occurring much faster than cash inflows, and this will put a strain on any cash reserves. If it was to continue, it could see the business run out of cash and require a capital contribution just to keep trading. Given that suppliers offer 60 days, the business would be advised to slow its payments to Accounts Payable.



Review questions 19.8

- 1 State** what is measured by Accounts Payable Turnover (APTO).
- 2 Show** the formula to calculate Accounts Payable Turnover.
- 3 Explain** the importance of credit terms offered by suppliers in assessing Accounts Payable Turnover.
- 4 List** the strategies a business could use to manage its Accounts Payable Turnover, in the order in which they should be implemented.
- 5 Explain** the relationship between Inventory Turnover, Accounts Receivable Turnover and Accounts Payable Turnover.



Where have we been?

- Liquidity refers to the ability of a business to meet its short-term debts as they fall due.
- The Budgeted Cash Flow Statement is essential to an analysis of liquidity, as it details all expected cash inflows and cash outflows and states categorically whether the business will be able to meet its cash obligations for the coming year.
- The Working Capital Ratio and Quick Asset Ratio assess the level of liquidity and should be at least 1:1.
- Inventory Turnover, Accounts Receivable Turnover and Accounts Payable Turnover assess efficiency: the ability of the firm to manage its inventory, Accounts Receivable and Accounts Payable.
- Inventory management strategies include determining an appropriate level of inventory on hand, maintaining an appropriate inventory mix, rotating inventory, ensuring inventory is up to date and promoting the sale of complementary goods.
- Accounts Receivable management strategies include the use of discounts for quick settlement, prompt invoicing, extensive credit checks, reminder notices, threats of legal action, debt collection agency and threats of not providing credit in the future.
- Accounts Receivable Turnover and Accounts Payable Turnover should be assessed against the credit terms.

Exercises



Exercise 19.1
Liquidity

At the end of 2029, Hilltop Sporting Goods had \$12 000 cash in the bank, but by the end of 2030 that had fallen to \$3 500, prompting its owner to say that its liquidity had fallen.

Required

- a. **Explain** one reason why the owner may have made this statement.
- b. **State** two reasons why the owner’s assertion about the firm’s liquidity may be incorrect.
- c. **State** two indicators that can be used to assess the level of liquidity.
- d. **State** two indicators that can be used to assess the speed of liquidity.



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Exercise 19.2
Working Capital Ratio

The Balance Sheet of Wellington Boots as at 31 December 2030 showed current assets of \$34 000 and current liabilities of \$42 500.

Required

- a. **State** what is measured by the Working Capital Ratio.
- b. **Calculate** the Working Capital Ratio for Wellington Boots as at 31 December 2030.
- c. Referring to your answer to part **b**, **assess** the Working Capital Ratio of Wellington Boots.
- d. **Suggest** two actions the owner of Wellington Boots may need to take to ensure the business is able to meet its short-term debts as they fall due.



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Exercise 19.3
Working Capital Ratio

Lights of Your Life has provided the following information:

	2029	2030
Working Capital Ratio	1.65:1	1.21:1

The owner is planning to increase the overdraft to pay off some Accounts Payable.

Required

- a. **Explain** one reason why the owner should be concerned about the trend in this indicator.
- b. **Explain** the effect of the owner’s plan on the Working Capital Ratio of Lights of Your Life.
- c. **Explain** one limitation of relying on the Working Capital Ratio to assess liquidity.
- d. **Explain** how the budgeted Cash Flow Statement could be used to assess liquidity.



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Exercise 19.4

Working Capital Ratio and Quick Asset Ratio

Madden Homewares has provided the following extract from its Balance Sheet:

MADDEN HOMEWARES Balance Sheet (extract) as at 30 June 2030			
	\$		\$
Current Assets		Current Liabilities	
Accrued interest revenue	300	Bank overdraft	12 000
Inventory	47 200	Accounts Payable	20 100
Accounts Receivable	34 100	Accrued electricity	500
Prepaid rent expense	2 150	GST Clearing	900
Total Current Assets	83 750	Total Current Liabilities	33 500

The Working Capital Ratio of Madden Homewares as at 30 June 2030 was 2.5:1.

Required

- State** what is measured by the Quick Asset Ratio.
- Explain** why inventory is excluded from the calculation of quick assets.
- Calculate** the Quick Asset Ratio of Madden Homewares as at 30 June 2030.
- Referring to your answer to part **c**, **assess** the Quick Asset Ratio of Madden Homewares.
- Explain** how the efficiency of Madden Homewares in managing its current assets will affect its liquidity.



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Exercise 19.5

Working Capital Ratio and Quick Asset Ratio

Jordan's Rugs has provided the following information:

	2029	2030
Working Capital Ratio	2.9:1	4.1:1
Quick Asset Ratio	1.5:1	1.5:1

Required

- Suggest** one possible explanation for the fact that the Working Capital Ratio has increased but the Quick Asset Ratio has stayed the same from 2029 to 2030.
- Explain** one negative consequence if the Working Capital Ratio is too high.
- Explain** the circumstances in which this firm is likely to:
 - have no difficulties meeting its short-term debts
 - have difficulties meeting its short-term debts.



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Exercise 19.6

Cash Flow Cover

Hair Today has provided the following information:

	2029	2030
Average current liabilities	\$13 000	\$10 000
Net Cash Flows from Operating Activities	\$39 000	\$35 000

Required

- Calculate** the Cash Flow Cover for Hair Today for 2029 and 2030.
- Referring to your answer to part **a**, **explain** whether liquidity has improved or worsened from 2029 to 2030.
- Explain** the cause(s) of the change in the Cash Flow Cover from 2029 to 2030.
- State** two other pieces of information from the Cash Flow Statement that would assist in an assessment of the liquidity of Hair Today.
- Explain** why it is important for liquidity that Net Cash Flows from Operating Activities is positive.
- Assuming current liabilities were \$10 000 at the start of 2030, **model** the effect on the Cash Flow Cover of Hair Today if the following had occurred in 2030:
 - a \$5 000 (plus GST) increase in cash sales
 - a \$10 000 cash contribution by the owner to pay off all current liabilities at the end of the year.



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Exercise 19.7

Level of liquidity

e-Comms and Virtual World both sell computer systems and have provided the following information for 2030:

	e-Comms	Virtual World
Working Capital Ratio	1.2:1	5.3:1
Quick Asset Ratio	0.75:1	3.4:1
Cash Flow Cover	4.6 times	1.25 times

Required

- Explain** why the Working Capital Ratio of each firm is higher than its Quick Asset Ratio.
- Explain** one reason why Virtual World should be concerned about its Working Capital Ratio.
- Explain** how the Balance Sheet of Virtual World as at 31 December 2030 could assist in assessing its liquidity.
- Discuss** whether e-Comms will be able to meet its short-term debts as they fall due.
- Identify** one other piece of information that would assist in assessing the liquidity of e-Comms. **Justify** your answer.



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Exercise 19.8

Inventory Turnover

Orlando's Blooms is a flower shop operating in Horsham. It has provided the following information relating to its inventory for 2030:

Average inventory	\$8 000
Cost of Goods Sold	\$195 000
Budgeted Inventory Turnover	4 days



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Required

- State** what is measured by Inventory Turnover.
- Calculate** Inventory Turnover for Orlando's Blooms for 2030.
- Referring to your answer to part **b**, **state** two reasons why the owner would consider this Inventory Turnover to be unsatisfactory.
- Explain** how slow Inventory Turnover can have negative consequences for:
 - profitability
 - liquidity.
- Assuming average inventory remains the same, **calculate** the level of Cost of Goods Sold that Orlando's Blooms would need to achieve its budgeted Inventory Turnover.
- Referring to your answer to part **e**, **comment** on the appropriateness of the budgeted Inventory Turnover of Orlando's Blooms.
- Describe** one action the owner could take to improve Inventory Turnover without affecting Gross Profit.



Exercise 19.9

Inventory Turnover

The Light House sells a huge variety of lights and lamps as well as candles, candlesticks and other decorative items. The owner has provided the following information relating to its inventory for 2029 and 2030:

	2029	2030
Inventory Turnover	42 days	33 days
Average Inventory	\$34 000	\$30 000



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Required

- Explain** why the owner would be pleased with this trend in Inventory Turnover.
- Explain** one negative consequence if Inventory Turnover is too fast.
- Explain** the relationship between selling prices and Inventory Turnover.
- State** one limitation of using Inventory Turnover to assess the effectiveness of inventory management.
- Explain** how inventory cards can assist in assessing the effectiveness of inventory management.



Exercise 19.10
Accounts Receivable Turnover

Ferrante Suits has provided the following information relating to its activities for 2030:

Cash sales	\$200 000
Credit sales	\$48 000
Sales returns	\$3 500
Average Accounts Receivable	\$6 600
Credit terms offered to customers	40 days
Inventory Turnover	21 days

Required

- a. **State** what is measured by Accounts Receivable Turnover.
- b. **Calculate** Accounts Receivable Turnover for Ferrante Suits for 2030.
- c. Referring to your answer for part b, **state** whether Accounts Receivable Turnover is satisfactory or unsatisfactory. **Justify** your answer.
- d. **Suggest** two strategies the owner could implement to improve Accounts Receivable Turnover.
- e. **Explain** why this firm’s Accounts Receivable Turnover is unlikely to have a significant impact on its ability to meet its short-term debts.



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Exercise 19.11
Accounts Receivable Turnover and Inventory Turnover

Lowen Lifevests has provided the following information for 2030:

Inventory Turnover	46 days
Accounts Receivable Turnover	25 days
Credit terms offered to customers	30 days
Credit terms offered by suppliers	60 days
Inventory Turnover (2029)	31 days

Required

- a. **Explain** why this firm may have liquidity problems in 2030.
- b. **Identify** two facts that support the claim that management of inventory has been worse than management of Accounts Receivable in 2030.
- c. **Explain** the importance of inventory management in terms of meeting short-term debts as they fall due.
- d. **List** three inventory management strategies Lowen Lifevests could implement to improve its Inventory Turnover.
- e. **State** one benefit and one cost of offering discounts to Accounts Receivable.
- f. **Explain** how credit checks can lead to faster Accounts Receivable Turnover.



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Exercise 19.12

Accounts Payable Turnover

Pringle Pumps has provided the following information for 2030:

Average Accounts Payable	\$11 000
Credit purchases	\$91 250
Purchase returns	\$2 500
Credit terms offered by suppliers	30 days

In 2029, Accounts Payable Turnover was 34 days.

Required

- State** what is measured by Accounts Payable Turnover.
- Calculate** Accounts Payable Turnover for Pringle Pumps for 2030.
- State** two reasons why the owner should be concerned about Accounts Payable Turnover in 2030.
- State** two negative consequences of exceeding the credit terms offered by suppliers.
- Referring to financial and ethical considerations, **discuss** the effects on liquidity of exceeding the credit terms offered by suppliers.

Ethical considerations



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Exercise 19.13

Inventory Turnover, Accounts Receivable Turnover and Accounts Payable Turnover

Claire's Clocks has provided the following information relating to its activities for 2029 and 2030:

	2029	2030
Inventory Turnover	36 days	33 days
Accounts Receivable Turnover	31 days	49 days
Accounts Payable Turnover	51 days	64 days
Credit terms offered to customers		30 days
Credit terms offered by suppliers		45 days
Inventory Turnover – industry average		11 days

Required

- Suggest** two possible reasons for the improvement in Inventory Turnover in 2030.
- Suggest** two strategies the owner could adopt to encourage late Accounts Receivable to pay.
- Explain** how the change in Accounts Receivable Turnover has affected Accounts Payable Turnover in 2030.
- Referring to one other liquidity indicator, **explain** how this business could avoid liquidity problems without raising further external finance in 2030.



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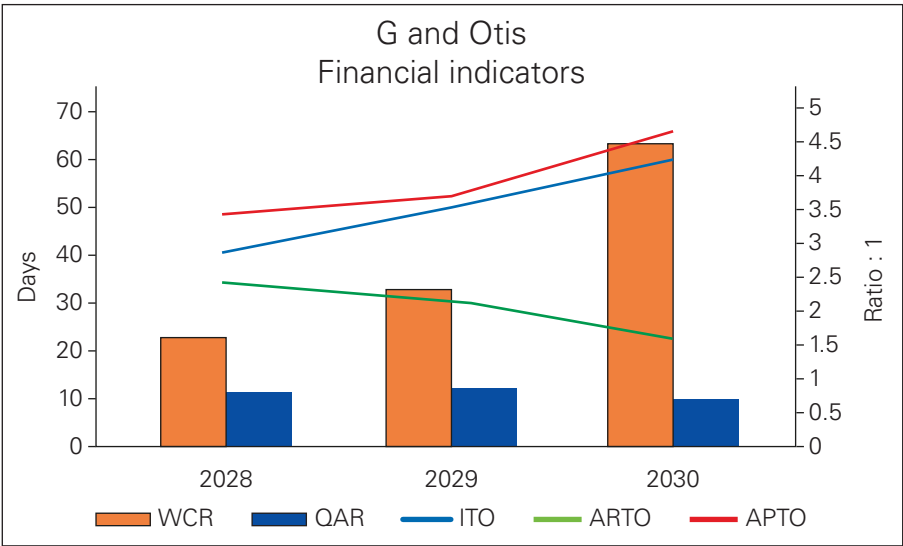


Exercise 19.14
Analysing liquidity

G and Otis sells active wear and has provided the following information relating to its financial activities:



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Additional information:

- G and Otis offers customers credit terms of 40 days, but most sales are made on cash terms.
- Accounts Payable offer terms of n/60.

Required

- Identify** two other pieces of information that may be useful in analysing the Inventory Turnover.
- Discuss** the liquidity of G and Otis.
- Explain** two actions G and Otis could take in 2031 to improve its liquidity.

..

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Exercise 19.15

Analysing profitability and liquidity

Sachini de Silva is the owner and operator of Silva Smiths, a shop that sells silver and gold ornaments and decorations. All sales are made on credit. Sachini has provided the following information relating to the firm's activities for 2029 and 2030:

Indicator	2029	2030
Accounts Payable Turnover	46 days	44 days
Accounts Receivable Turnover	35 days	36 days
Asset Turnover	2.0 times	2.1 times
Gross Profit Margin	54%	48%
Inventory Turnover	132 days	121 days
Net Profit Margin	12%	15%
Quick Asset Ratio	0.8:1	0.65:1
Working Capital Ratio	2.6:1	1.5:1

Additional information:

- At the start of 2030 Silva Smiths lowered selling prices.
- Silva Smiths offers credit terms of n/30.
- Silva Smith's main supplier offers credit terms of 7/10, n/60.

Required

- Identify** two indicators that have improved as a result of Sachini's decision to lower selling prices at the start of 2030. **Explain** how Sachini's decision led to these changes.
- State** whether Return on Assets in 2030 would be higher or lower than in 2029. **Justify** your answer.
- Discuss** the effect on profitability of the decision to lower selling prices at the start of 2030.
- Discuss** the liquidity of Silva Smiths.
- Explain** two actions Silva Smiths could take in 2031 to improve its liquidity without changing its Asset Turnover or Net Profit Margin.



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Glossary

Account Payable [p. 112]

a supplier from whom goods (usually inventory) or services have been purchased on credit, and the amount is still owing for those purchases (also called a 'creditor')

Account Receivable [p. 144]

a customer to whom inventory has been sold on credit, and the amount is still owing for those sales (also called a 'debtor')

Accounting [p. 6]

the process of collecting and recording financial data; reporting, analysing and interpreting financial information; and advising users about possible courses of action to assist decision-making

Accounting assumptions [p. 13]

the generally accepted principles that influence the way Accounting information is generated

Accounting entity assumption [p. 13]

the assumption that the records of assets, liabilities and business activities of the entity are kept completely separate from those of the owner of the entity as well as from those of other entities

Accounting equation [p. 33]

the rule that states that assets must always equal liabilities plus owner's equity

Accounting process [p. 10]

the process used to generate financial information from financial data leading to the provision of advice to assist decision-making

Accounting Standard [p. 13]

a technical pronouncement that sets out the required Accounting for particular types of transactions and events for businesses reporting under company law

Accounts Payable Turnover (APTO) [p. 128]

the average number of days it takes for a business to pay its Accounts Payable

Accounts Receivable Ageing Analysis [p. 165]

a listing of the amount and proportion of Accounts Receivable according to the length of time they are owing

Accounts Receivable Turnover (ARTO) [p. 163]

the average number of days it takes for a business to receive cash from its Accounts Receivable

Accrual basis assumption [p. 15]

the assumption that revenues are recognised when earned and expenses are recognised when incurred, so profit is calculated as revenue earned in a particular period, less expenses incurred in that period

accrued expense [p. 385]

a current liability that arises when an expense has been incurred in the current Period but has not yet been paid

accrued revenue [p. 480]

a current asset that arises when revenue has been earned but cash is yet to be received

Accumulated depreciation [p. 412]

the total value of a non-current asset that has been incurred over its life thus far

advice [p. 11]

the provision to the owners of a range of options appropriate to their aims/objectives, together with recommendations as to the suitability of those aims/objectives

Allowance for doubtful debts [p. 361]

a negative asset account that records the balance of doubtful debts (that are unlikely to be collected in the future but have not yet been written off)

analysing [p. 538]

examining the financial reports in detail to identify changes or differences in performance

Analysing Chart [p. 54]

a tool used to identify the steps for recording transactions in the General Ledger

asset [p. 20]

a present economic resource controlled by an entity as a result of past events

Asset Turnover (ATO) [p. 549]

an efficiency indicator that indicates how productively a business has used its assets to earn revenue

bad debt [p. 358]

a debt that must be 'written off' as irrecoverable or uncollectable because it has been confirmed that the Account Receivable is unable to pay due to liquidation or bankruptcy

balance day adjustment (BDA) [p. 357]

a change made to a revenue or expense account on balance day so that revenue accounts show revenues earned and expense accounts show expenses incurred in a particular Period

Balance Sheet [p. 34]

an Accounting report that details the business's assets, liabilities and owner's equity at a particular point in time

balancing [p. 65]

ruling off an asset, liability or owner's equity account to determine its balance at the end of the current period and transferring that balance to the next period

benchmark [p. 542]

an acceptable standard against which the firm's actual performance can be assessed

budget [p. 496]

an Accounting report that predicts/estimates the financial consequences of future events

Budgeted Balance Sheet [p. 511]

an Accounting report that predicts assets, liabilities and owner's equity at some point in the future

Budgeted Cash Flow Statement [p. 498]

an Accounting report that attempts to predict all future cash inflows and cash outflows, and thus the estimated bank balance at the end of the budget period

Budgeted Income Statement [p. 508]

an Accounting report that shows expected future revenues and expenses and, as a result, the expected profit for the budget period

budgeting [p. 496]

the process of predicting/estimating the financial consequences of future events

Carrying value [p. 417]

the value of a non-current asset that is yet to be incurred / allocated as an expense, plus any Residual value

cash deficit [p. 329]

an excess of cash payments over cash receipts, leading to a decrease in the bank balance

Cash Flow Cover (CFC) [p. 337]

a liquidity indicator that measures the number of times Net Cash Flows from Operating Activities is able to cover average current liabilities

Cash Flow Statement [p. 329]

an Accounting report that details all cash inflows and outflows from Operating, Investing and Financing activities, and the overall change in the firm's cash balance

Cash Flow Statement Variance Report [p. 518]

an Accounting report that compares actual and budgeted cash flows, highlighting variances as favourable or unfavourable depending on their effect on budgeted cash on hand

cash receipt [p. 82]

a source document used to verify cash received

cash surplus [p. 329]

an excess of cash receipts over cash payments, leading to an increase in the bank balance

cheque butt [p. 89]

a source document used to verify a cash payment made by cheque

classification [p. 35]

grouping together items that have some common characteristic

closing the ledger [p. 291]

transferring balances from revenue and expense ledger accounts to the Profit and Loss Summary account so that profit can be calculated

commencing entry [p. 184]

a General Journal entry to establish double-entry records by entering existing asset, liability and owner's equity balances in the General Ledger accounts

Comparability [p. 19]

financial information should enable users to identify and understand similarities in and differences among items, when compared with similar information about other entities, and with similar information about the same entity for another period or another date

Conceptual Framework [p. 13]

a statement of generally accepted theoretical principles that form the frame of reference for financial reporting

correcting entry [p. 187]

a General Journal entry to correct an error in the way a transaction is recorded in the General Journal or General Ledger

cost of a non-current asset [p. 419]

all costs incurred in order to bring the asset into a location and condition ready for use, which will provide a benefit for the life of the asset

Cost of Goods Sold (COGS) [p. 233]

all costs incurred in getting inventory into a condition and location ready for sale in a particular Period

cost of inventory [p. 252]

all costs incurred in order to bring inventory into a condition and location ready for sale

Cost of Sales [p. 56]

the value of inventory that has been sold in a particular period, valued at its cost price

cost price [p. 205]

the original purchase price of each individual item of inventory

credit card receipt [p. 86]

a source document issued for sales made on credit card

credit note [p. 120]

a source document that verifies the return of inventory

credit purchase [p. 112]

a transaction that involves buying inventory on credit, with the exchange of the inventory on one date, followed by the exchange of cash at a later date

credit sale [p. 144]

a transaction that involves selling inventory on credit, with the provision of the inventory on one date, followed by the receipt of cash at a later date

credit side [p. 47]

the right-hand side of a ledger account

credit terms [p. 114]

information that details how many days a business has to pay for a credit transaction, and any applicable settlement discount

credit transaction [p. 112]

a transaction that involves an exchange of goods or services on one date, followed by the exchange of cash at a later date

cross-reference [p. 50]

the name of the other account/s affected by a transaction, so that all accounts affected by a particular transaction can be identified

current asset [p. 35]

a present economic resource controlled by an entity as a result of past events that is reasonably expected to be converted to cash, sold or consumed within the next 12 months

current liability [p. 35]

a present obligation of an entity to transfer an economic resource as a result of past events that is reasonably expected to be settled within 12 months

debit side [p. 47]

the left-hand side of a ledger account

Debt Ratio [p. 545]

a stability indicator that measures the percentage of a firm's assets that are financed by liabilities

delivery docket [p. 192]

a document issued by the supplier to accompany a delivery, listing the type and quantity of all items delivered

depreciable asset [p. 404]

a non-current asset that has a finite life and must be depreciated over its life

depreciable value [p. 407]

the total value of the asset that will be consumed by the current entity, and so must be allocated as depreciation expense over its Useful life

depreciation [p. 405]

the allocation of the cost of a non-current asset over its Useful life

depreciation expense [p. 405]

that part of the cost of a non-current asset that has been incurred in the current Period

discount expense [p. 156]

an expense in the form of a decrease in assets (Accounts Receivable) and owner's equity, incurred when cash is received early from Accounts Receivable and a settlement discount is allowed

discount revenue [p. 123]

a revenue in the form of a decrease in liabilities (Accounts Payable) and an increase in owner's equity, earned when Accounts Payable are paid early and a settlement discount is given by the supplier

double-entry Accounting [p. 37]

a system that records at least two effects on the Accounting equation as a result of each transaction

doubtful debt [p. 358]

a debt that is unlikely to be collected in the future but has not yet been 'written off' as it has not been confirmed that the Account Receivable is unable to pay

efficiency [p. 538]

the ability of the business to manage its assets and liabilities

EFT receipt [p. 83]

a source document used to verify a cash transfer received via Electronic Funds Transfer

equities [p. 33]

claims on the assets of a business, consisting of both liabilities and owner's equity

ethical considerations [p. 8]

the social and environmental consequences of a financial decision; for Accountants, the requirement to act with integrity, impartiality, objectivity and confidentiality; for Accountants, the requirement to act with integrity, impartiality, objectivity and confidentiality

expense [p. 23]

decreases in assets or increases in liabilities that result in decreases in owner's equity, other than those relating to distributions to the owner

expense control [p. 551]

the firm's ability to manage its expenses so that they either decrease or, in the case of variable expenses, increase no faster than Sales revenue

fair value [p. 180]

the price of an asset contributed by the owner that would be received if that asset was sold at the time it was acquired by the business

Faithful representation [p. 17]

financial information should be a faithful representation of the real-world economic event it claims to represent: complete, free from material error and neutral (without bias)

financial data [p. 10]

the raw facts and figures upon which financial information is based

financial information [p. 10]

financial data that has been sorted, classified and summarised into a more useable and understandable form

Financing activities [p. 330]

cash flows related to changes in the financial structure of the firm

finite life [p. 404]

the limited period of time (usually measured in years or sometimes in units of use) for which a non-current asset will exist

First In, First Out (FIFO) [p. 223]

a method of valuing inventory that assumes that, unless otherwise indicated, the first items purchased are the first sold, and therefore values inventory sold using the earliest cost price on hand

footing [p. 63]

an informal process used to determine the balance of a ledger account

General Journal [p. 81]

an Accounting record used to analyse and record each transaction, and to identify its source document before posting to the General Ledger

General Ledger [p. 46]

the collective name for the main group of ledger accounts

Going concern assumption [p. 14]

the assumption that the existing entity will continue to operate in the future, and its records are kept on that basis

Goods and Services Tax (GST) [p. 76]

a 10% tax levied by the federal government on most purchases of goods and services

Gross Profit Margin (GPM) [p. 307]

a profitability indicator that measures the average mark-up by calculating the percentage of Net Sales revenue that is retained as Gross Profit

GST Clearing [p. 50]

a General Ledger account used to record all GST transactions

GST refund [p. 80]

a cash receipt from the ATO to settle a GST asset from a previous period

GST settlement [p. 80]

a cash payment to the ATO to settle a GST liability from a previous period

Historical cost (HC) [p. 407]

the original purchase price of the non-current asset

horizontal analysis [p. 541]

comparing reports from one period to the next, and identifying the increase or decrease in specific items in the report

Identified Cost [p. 214]

a method of valuing inventory by physically marking each item in some way so that its individual cost price can be identified

Income Statement [p. 299]

an Accounting report that details the revenues earned and expenses incurred during the current Period

Income Statement Variance Report [p. 520]

an Accounting report that compares actual and budgeted revenues and expenses, highlighting variances as favourable or unfavourable depending on their effect on budgeted profit

interpreting [p. 538]

examining the relationships between the items in the financial reports in order to explain the cause and effect of changes or differences in performance

inventory [p. 202]

goods purchased by a trading firm and held for the purpose of resale at a profit

inventory card [p. 204]

a subsidiary Accounting record that records each individual transaction involving the movement in and out of the business of a particular line of inventory

inventory count [p. 218]

a physical count of the number of units of each line of inventory on hand

inventory gain [p. 220]

a revenue earned when the inventory count shows a figure for inventory on hand that is more than the balance shown in the inventory card

inventory loss [p. 218]

an expense incurred when the inventory count shows a figure for inventory on hand that is less than the balance shown in the inventory card

Inventory Turnover (ITO) [p. 273]

the average number of days it takes for a business to sell its inventory or convert its inventory into sales

Inventory write-down [p. 268]

the expense incurred when the Net Realisable Value (NRV) of an item of inventory falls below its Cost or original purchase price

Investing activities [p. 330]

cash flows related to the purchase and sale of non-current assets

ledger account [p. 46]

an Accounting record showing all the transactions that affect a particular item

liability [p. 21]

a present obligation of an entity to transfer an economic resource as a result of past events

liquidity [p. 130]

the ability of a business to meet its short-term debts as they fall due

loss on disposal of non-current asset [p. 448]

an expense incurred when the proceeds from the disposal of a non-current asset are less than its Carrying value when disposed

Lower of 'Cost' and 'Net Realisable Value' rule [p. 266]

inventory should be valued at either its Cost, or its Net Realisable Value, using whichever value is lower

materiality [p. 17]

an entity-specific aspect of Relevance, based on the nature or magnitude of an item, that says information must be included if omitting, misstating or obscuring it could influence decisions that users make

memo [p. 178]

an internal source document used to verify a transaction that does not involve cash and is not a sale, purchase or return of inventory

narration [p. 81]

a brief description of a transaction recorded in the General Journal, including a reference to the relevant source document

Net Profit Margin (NPM) [p. 306]

a profitability indicator that indicates expense control by calculating the percentage of Net Sales revenue that is retained as Net Profit

Net Realisable Value (NRV) [p. 266]

the estimated selling price of inventory minus any costs involved in its selling, marketing or distribution

Net Sales [p. 233]

overall Sales revenue earned in a particular Period after the deduction of Sales returns from Sales

non-current asset [p. 35]

a present economic resource controlled by an entity as a result of past events that is not held for resale and is reasonably expected to be used for more than the next 12 months

non-current liability [p. 35]

a present obligation of an entity to transfer an economic resource as a result of past events that is not required to be settled within 12 months

non-financial information [p. 7]

any information that cannot be found in the financial statements, and is not expressed in dollars and cents, or reliant on dollars and cents for its calculation

Operating activities [p. 329]

cash flows related to day-to-day trading activities

order confirmation [p. 190]

a document issued by the supplier confirming the receipt of an order (for inventory)

order form [p. 189]

a document issued by a business requesting the supply of inventory or other goods

over-depreciation [p. 452]

when excess depreciation expense has been allocated over the life of a non-current asset, resulting in an understatement of the asset's Carrying value

owner's equity [p. 22]

the residual interest in the assets of an entity after the deduction of its liabilities

Period assumption [p. 15]

the assumption that reports are prepared for a particular period of time, such as a month or year, in order to obtain comparability of results

period cost [p. 259]

a cost incurred in order to bring inventory into a condition and location ready for sale that cannot be allocated to individual units of inventory on a logical basis

perpetual system of inventory recording [p. 234]

recording inventory transactions in inventory cards, then conducting a physical inventory count at the end of the Period to verify the balances of those inventory cards, in the process detecting any inventory losses or gains

Post-adjustment Trial Balance [p. 390]

a list of all General Ledger accounts and their balances after balance day adjustments have been made

Pre-adjustment Trial Balance [p. 390]

a list of all General Ledger accounts and their balances before balance day adjustments have been made

prepaid expense [p. 380]

a current asset that is purchased when an item has been paid for in the current Period but has not yet been incurred

product cost [p. 254]

a cost incurred in order to bring inventory into a condition and location ready for sale that can be allocated to individual units of inventory on a logical basis

Profit and Loss Summary account [p. 291]

a General Ledger account that is used to summarise revenues and expenses so that profit can be calculated

profit on disposal of non-current asset [p. 449]

a revenue earned when the proceeds from the disposal of a non-current asset are greater than its Carrying value when disposed

profitability [p. 306]

the ability of a business to earn profit as expressed in relative terms by comparing profit against a base like sales, assets or owner's equity

profitability indicators [p. 542]

measures that express an element of profit in relation to some other aspect of business performance

purchase invoice [p. 113]

a source document used to verify a credit purchase of inventory or other items

purchase return [p. 119]

the return to a supplier (Account Payable) of inventory bought on credit

Qualitative characteristics [p. 16]

the qualities of the information in financial reports

Quick Asset Ratio (QAR) [p. 576]

a liquidity indicator that measures the ratio of quick assets to quick liabilities, to assess the firm's ability to meet its immediate debts

recording [p. 11]

sorting, classifying and summarising the data contained in the source documents so that it is more useable

Relevance [p. 16]

financial information must be capable of making a difference to the decisions made by users by helping them to form predictions and/or confirm or change their previous evaluations

reporting [p. 11]

the preparation of financial statements that communicate financial information to the owner

Residual value (RV) [p. 407]

the estimated value of the non-current asset at the end of its useful life

Return on Assets (ROA) [p. 547]

a profitability indicator that indicates how effectively a business has used its assets to earn profit

Return on Owner's Investment (ROI) [p. 543]

a profitability indicator that indicates how effectively a business has used the owner's capital to earn profit

revenue [p. 23]

increases in assets or decreases in liabilities that result in increases in owner's equity, other than those relating to contributions from the owner

sales invoice [p. 145]

a source document used to verify a credit sale of inventory to an Account Receivable

sales return [p. 151]

the return by a customer (Account Receivable) of inventory sold on credit

settlement discount [p. 123]

a reduction in the amount paid by a credit customer in return for early repayment

shipping confirmation [p. 191]

a document issued by the supplier confirming that inventory has been dispatched and is being shipped to the business

source document [p. 10]

document that provide both the evidence that a transaction has occurred and the details of the transaction itself

stability [p. 538]

the ability of the business to meet its debts and continue its operations in the long term

Statement of Account [p. 126]

a summary of the transactions a business has had with a particular Account Payable (or Account Receivable) over a certain period of time (usually a month)

Statement of Receipts and Payments [p. 327]

an Accounting report that details cash received and paid during a period, and the change in the firm's bank balance over that period

tax invoice [p. 77]

a source document that contains specific information required by the ATO to substantiate GST amounts

Timeliness [p. 19]

financial information should be available to decision-makers in time to be capable of influencing their decisions

trade-in [p. 453]

proceeds on the disposal of a non-current asset in the form of a reduction in the amount payable for the purchase of a new non-current asset

trading firm [p. 202]

a firm that purchases goods in order to resell them at a profit

transaction [p. 10]

an exchange of goods or services with another party

trend [p. 540]

the pattern formed by changes over time

Trial Balance [p. 63]

a list of all the accounts in the General Ledger, and their balances, to determine if total debits equal total credits

under-depreciation [p. 452]

when insufficient depreciation expense has been allocated over the life of a non-current asset, resulting in an overstatement of the asset's Carrying value

Understandability [p. 19]

financial information should be understandable or comprehensible to users with a reasonable knowledge of business and economic activities, and presented clearly and concisely

unearned revenue [p. 471]

a current liability that arises when cash is received in advance for revenue that is yet to be earned

unit cost [p. 253]

the cost price of each individual item/unit of inventory

Useful life (Life) [p. 407]

the estimated period of time for which the non-current asset will be used by the current entity to earn revenue (usually measured in years)

variance [p. 518]

the difference between actual and budgeted figures, usually described as favourable or unfavourable

variance report [p. 518]

an Accounting report that compares actual and budgeted figures, highlighting variances so that problems can be identified and corrective action taken

Verifiability [p. 18]

financial information should allow different knowledgeable and independent observers to reach a consensus (arrive at the same conclusion) that an event is faithfully represented

vertical analysis [p. 556]

a report that expresses every item as a percentage of a base figure

Vertical analysis of the Income Statement [p. 310]

a representation of individual expenses as a percentage of Sales revenue to allow for an assessment of their relative importance

Working Capital Ratio (WCR) [p. 573]

a liquidity indicator that measures the ratio of current assets to current liabilities, to assess the firm's ability to meet its short-term debts

Selected Answers

Chapter 2

- 2.2 c Total Assets = \$92 600
 2.3 b Total Assets = \$83 190
 2.4 a Total Assets = \$165 500
 2.6 d Total Assets = \$104 400
 2.7 b Total Assets = \$93 620

Chapter 3

- 3.4 e Trial Balance = \$199 160
 3.5 e Trial Balance = \$37 550
 3.6 e Trial Balance = \$248 243
 3.7 c Trial Balance = \$14 125
 3.8 d Trial Balance = \$272 213
 g Net Profit = \$5 240
 h Total Assets = \$263 073

Chapter 4

- 4.9 d Trial Balance = \$40 246
 e Net Profit = \$910
 g Total Assets = \$36 556

Chapter 7

- 7.6 d Total Assets = \$632 350

Chapter 8

- 8.9 b Net Profit = \$14 400
 e Total Assets = \$173 900
 8.10 a Net Profit = \$300
 d Total Assets = \$64 600

Chapter 9

- 9.5 c Adjusted Gross Profit = \$1 100
 9.8 e Adjusted Gross Profit = \$1 900
 9.14 h Adjusted Gross Profit = \$19 500

Chapter 10

- 10.3 e Total equities = \$68 700
 10.4 b Net Profit = \$23 500
 10.5 c Net Profit (Loss) = \$920
 g Total Assets = \$40 320
 10.6 c Net Profit (Loss) = (\$2 480)
 g Total Assets = \$44 570
 10.9 d Net Profit (Loss) = \$2 190
 g Total Assets = \$608 070
 10.10 b Net Profit (Loss) = \$7 750
 g Total Assets = \$558 800

Chapter 11

- 11.1 a/b Bank Balance at End = \$2 900
 11.2 b Bank Balance at End = \$2 270
 11.3 b Bank Balance at End = \$10 500
 11.11 c Bank Balance at End = \$290
 11.12 c Bank Balance at End = (\$7 950)
 11.13 b Bank Balance at End = \$57 800
 c Gross Profit = \$16 000

- 11.14 c/d Bank Balance at End = (\$560)
 11.15 f Bank Balance at End = \$10 860

Chapter 13

- 13.11 b Trial Balance = \$196 570
 e Net Profit = \$1 480
 g Total Assets = \$96 150
 13.12 b Trial Balance = \$484 034
 e Net Profit (Loss) = \$51 246
 h Total Assets = \$310 196
 13.13 b Trial Balance = \$174 820
 e Net Profit (Loss) = \$25 560
 h Total Assets = \$112 970

Chapter 14

- 14.12 c Trial Balance = \$289 900
 e Net Profit (Loss) = (\$9 600)
 h Total Assets = \$83 100
 14.13 b Trial Balance = \$205 120
 e Net Profit = \$19 880
 g Total Assets = \$79 100

Chapter 15

- 15.13 b Trial Balance = \$133 240
 d Net Profit (Loss) = \$9 190
 i Total Assets = \$82 700

Chapter 16

- 16.9 c Trial Balance = \$250 195
 d Net Profit (Loss) = \$10 255
 f Total Assets = \$184 445
 16.10 f Current Assets = \$106 040
 Current Liabilities = \$70 100

Chapter 17

- 17.1 b Bank Balance at End = (\$7 230)
 17.2 b Bank Balance at End
 Jan. = \$310
 Feb. = (\$14 970)
 Mar. = \$5 100
 17.6 a Bank Balance at End = \$36 280
 b Net Profit = \$5 250
 e Total Assets = \$70 050
 17.7 c Bank Balance at End = \$22 735
 e Net Profit = \$9 525
 h Total Assets = \$104 635
 17.15 e Bank Balance at End = \$26 578
 h Current Assets = \$96 828
 Current Liabilities = \$55 220
 17.16 d Net Profit = \$23 090
 f Total Assets = \$152 490
 g Net Profit = \$23 263

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