Second Edition

CAMBRIDGE VCE ACCOUNTING

Anthony Simmons & Richard Hardy

UNITS 1&2

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Chapter openers

Each chapter opens with a summary of what is to come (*Where are we headed?*) as well as a list of *Key terms* for you to familiarise yourself with.

Where are we headed?
After completing this chapter, you should be able to:
- **distinguish** between internal and external sources of finance
- **describe** the various forms of finance available to small businesses
- **list** the advantages and disadvantages of each type of finance
- **explain** the guidelines for seeking external finance
- **list** the information necessary to apply for a loan
- **calculate** interest for simple and reducing balance loans
- **calculate** the Debt Ratio and Return on Owner's Investment
- **explain** the effect on the Debt Ratio of internal and external finance
- **explain** the relationship between the Debt Ratio, risk and return.

CHAPTER 4
SOURCES OF FINANCE

KEY TERMS
After completing this chapter, you should be familiar with the following terms:
- internal finance
- capital contribution
- retained earnings
- external finance
- trade credit
- creditor
- bank overdraft
- term loan
- security
- mortgage
- lease
- lessee
- lessor
- interest-only loan
- principal and interest loan
- Debt Ratio
- simple interest
- reducing balance interest
- Return on Owner's Investment (ROI)

Glossary terms and definitions

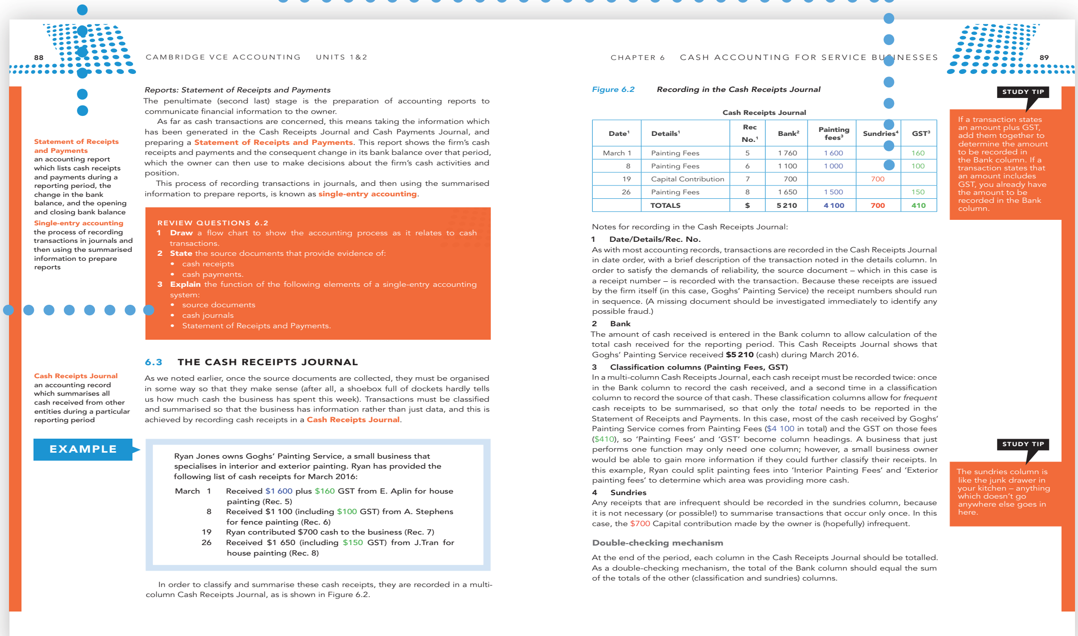
All of the glossary terms in each chapter are defined for you in the margin and in the glossary at the end of the book. The glossary is also marked with page references for ease of use.

Use of colour

Colour has been used to make it easy for you to follow particular transactions through the accounting process. You can simply track what impact a transaction had in the journals, the ledger and in various reports.

Review questions

Review questions are placed at the end of each section within each chapter, giving you the opportunity to review and reinforce your understanding as you work through the book.



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Reports: Statement of Receipts and Payments
The penultimate (second last) stage is the preparation of accounting reports to communicate financial information to the owner.

As far as cash transactions are concerned, this means taking the information which has been generated in the Cash Receipts Journal and Cash Payments Journal, and preparing a **Statement of Receipts and Payments**. This report shows the firm's cash receipts and payments and the consequent change in its bank balance over that period, which the owner can then use to make decisions about the firm's cash activities and position.

This process of recording transactions in journals, and then using the summarised information to prepare reports, is known as **single-entry accounting**.

Statement of Receipts and Payments an accounting report which lists cash receipts and payments during a reporting period, the change in the bank balance, and the opening and closing bank balance

Single-entry accounting the process of recording transactions in journals and then using the summarised information to prepare reports

REVIEW QUESTIONS 6.2
1 **Draw** a flow chart to show the accounting process as it relates to cash transactions.
2 **State** the source documents that provide evidence of:
- cash receipts
- cash payments.
3 **Explain** the function of the following elements of a single-entry accounting system:
- source documents
- cash journals
- Statement of Receipts and Payments.

6.3 THE CASH RECEIPTS JOURNAL

As we noted earlier, once the source documents are collected, they must be organised in some way so that they make sense (after all, a shoebox full of dockets hardly tells us how much cash the business has spent this week). Transactions must be classified and summarised so that the business has information rather than just data, and this is achieved by recording cash receipts in a **Cash Receipts Journal**.

Cash Receipts Journal an accounting record which summarises all cash received from other entities during a particular reporting period

EXAMPLE

Ryan Jones owns Goghs' Painting Service, a small business that specialises in interior and exterior painting. Ryan has provided the following list of cash receipts for March 2016:

March 1 Received $1 600 plus $160 GST from E. Aplin for house painting (Rec. 5)
8 Received $1 100 (including $100 GST) from A. Stephens for fence painting (Rec. 6)
19 Ryan contributed $700 cash to the business (Rec. 7)
26 Received $1 650 (including $150 GST) from J.Tran for house painting (Rec. 8)

In order to classify and summarise these cash receipts, they are recorded in a multi-column Cash Receipts Journal, as is shown in Figure 6.2.

CHAPTER 6 CASH ACCOUNTING FOR SERVICE BUSINESSES 89

Figure 6.2 *Recording in the Cash Receipts Journal*

Cash Receipts Journal

Date[1]	Details[1]	Rec No.[1]	Bank[2]	Painting fees[3]	Sundries[4]	GST[3]
March 1	Painting Fees	5	1 760	1 600		160
8	Painting Fees	6	1 100	1 000		100
19	Capital Contribution	7	700		700	
26	Painting Fees	8	1 650	1 500		150
	TOTALS	$	5 210	4 100	700	410

Notes for recording in the Cash Receipts Journal:

1 **Date/Details/Rec. No.**
As with most accounting records, transactions are recorded in the Cash Receipts Journal in date order, with a brief description of the transaction noted in the details column. In order to satisfy the demands of reliability, the source document – which in this case is a receipt number – is recorded with the transaction. Because these receipts are issued by the firm itself (in this case, Goghs' Painting Service) the receipt numbers should run in sequence. (A missing document should be investigated immediately to identify any possible fraud.)

2 **Bank**
The amount of cash received is entered in the Bank column to allow calculation of the total cash received for the reporting period. This Cash Receipts Journal shows that Goghs' Painting Service received **$5 210** (cash) during March 2016.

3 **Classification columns (Painting Fees, GST)**
In a multi-column Cash Receipts Journal, each cash receipt must be recorded twice: once in the Bank column to record the cash received, and a second time in a classification column to record the source of that cash. These classification columns allow for *frequent* cash receipts to be summarised, so that only the *total* needs to be reported in the Statement of Receipts and Payments. In this case, most of the cash received by Goghs' Painting Service comes from Painting Fees ($4 100 in total) and the GST on those fees ($410), so 'Painting Fees' and 'GST' become column headings. A business that just performs one function may only need one column; however, a small business owner would be able to gain more information if they could further classify their receipts. In this example, Ryan could split painting fees into 'Interior Painting Fees' and 'Exterior painting fees' to determine which area was providing more cash.

4 **Sundries**
Any receipts that are infrequent should be recorded in the sundries column, because it is not necessary (or possible!) to summarise transactions that occur only once. In this case, the $700 Capital contribution made by the owner is (hopefully) infrequent.

Double-checking mechanism

At the end of the period, each column in the Cash Receipts Journal should be totalled. As a double-checking mechanism, the total of the Bank column should equal the sum of the totals of the other (classification and sundries) columns.

STUDY TIP
If a transaction states an amount plus GST, add them together to determine the amount to be recorded in the Bank column. If a transaction states that an amount includes GST, you already have the amount to be recorded in the Bank column.

STUDY TIP
The sundries column is like the junk drawer in your kitchen – anything which doesn't go anywhere else goes in here.

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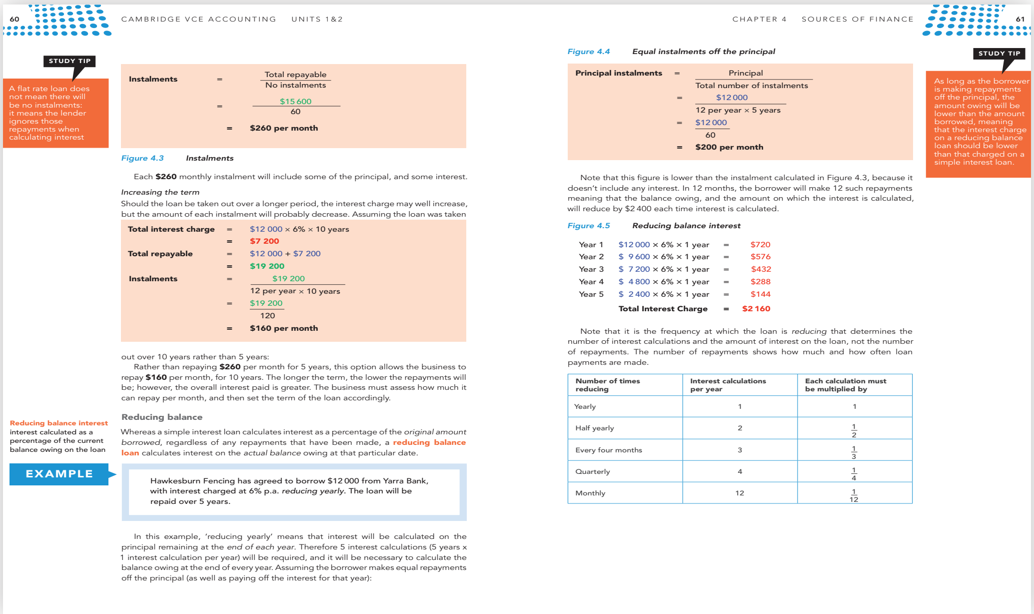

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STUDY TIP

A flat rate loan does not mean there will be no instalments: it means the lender ignores those repayments when calculating interest

Instalments	=	Total repayable / No instalments
	=	$15 600 / 60
	=	**$260 per month**

Figure 4.3 ***Instalments***

Each **$260** monthly instalment will include some of the principal, and some interest.

Increasing the term

Should the loan be taken out over a longer period, the interest charge may well increase, but the amount of each instalment will probably decrease. Assuming the loan was taken out over 10 years rather than 5 years:

Total interest charge	=	$12 000 × 6% × 10 years
	=	**$7 200**
Total repayable	=	$12 000 + $7 200
	=	**$19 200**
Instalments	=	$19 200 / 12 per year × 10 years
	=	$19 200 / 120
	=	**$160 per month**

Rather than repaying **$260** per month for 5 years, this option allows the business to repay **$160** per month, for 10 years. The longer the term, the lower the repayments will be; however, the overall interest paid is greater. The business must assess how much it can repay per month, and then set the term of the loan accordingly.

Reducing balance

Reducing balance interest interest calculated as a percentage of the current balance owing on the loan

Whereas a simple interest loan calculates interest as a percentage of the *original amount borrowed*, regardless of any repayments that have been made, a **reducing balance loan** calculates interest on the *actual balance* owing at that particular date.

EXAMPLE

Hawkesburn Fencing has agreed to borrow $12 000 from Yarra Bank, with interest charged at 6% p.a. *reducing yearly*. The loan will be repaid over 5 years.

In this example, 'reducing yearly' means that interest will be calculated on the principal remaining at the *end of each year*. Therefore 5 interest calculations (5 years x 1 interest calculation per year) will be required, and it will be necessary to calculate the balance owing at the end of every year. Assuming the borrower makes equal repayments off the principal (as well as paying off the interest for that year):

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Figure 4.4 ***Equal instalments off the principal***

Principal instalments	=	Principal / Total number of instalments
	=	$12 000 / 12 per year × 5 years
	=	$12 000 / 60
	=	**$200 per month**

STUDY TIP

As long as the borrower is making repayments off the principal, the amount owing will be lower than the amount borrowed, meaning that the interest charge on a reducing balance loan should be lower than that charged on a simple interest loan.

Note that this figure is lower than the instalment calculated in Figure 4.3, because it doesn't include any interest. In 12 months, the borrower will make 12 such repayments meaning that the balance owing, and the amount on which the interest is calculated, will reduce by $2 400 each time interest is calculated.

Figure 4.5 ***Reducing balance interest***

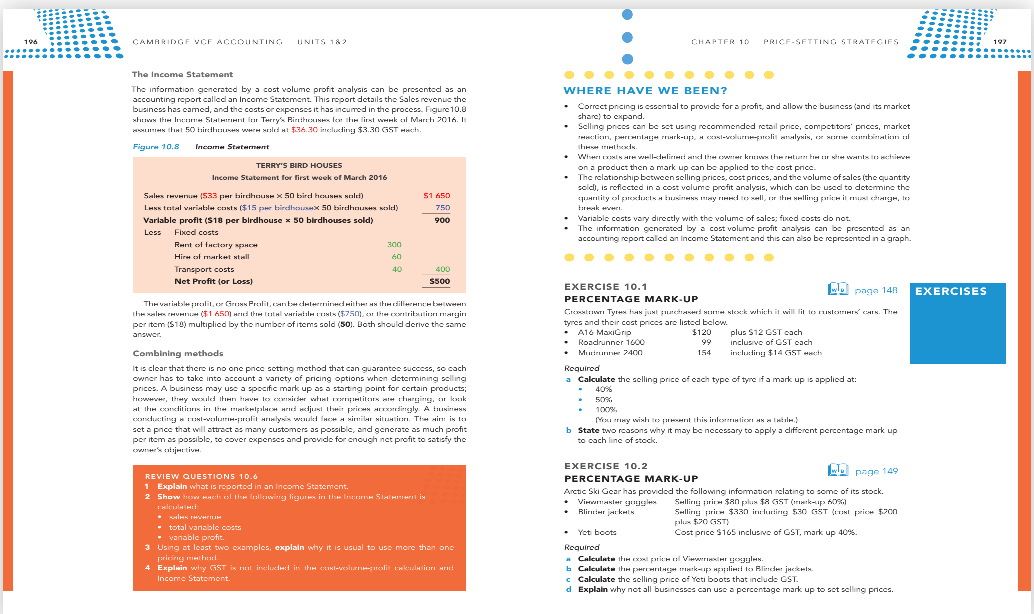
Year 1	$12 000 × 6% × 1 year	=	$720
Year 2	$ 9 600 × 6% × 1 year	=	$576
Year 3	$ 7 200 × 6% × 1 year	=	$432
Year 4	$ 4 800 × 6% × 1 year	=	$288
Year 5	$ 2 400 × 6% × 1 year	=	$144
	Total Interest Charge	=	**$2 160**

Note that it is the frequency at which the loan is *reducing* that determines the number of interest calculations and the amount of interest on the loan, not the number of repayments. The number of repayments shows how much and how often loan payments are made.

Number of times reducing	Interest calculations per year	Each calculation must be multiplied by
Yearly	1	1
Half yearly	2	$\frac{1}{2}$
Every four months	3	$\frac{1}{3}$
Quarterly	4	$\frac{1}{4}$
Monthly	12	$\frac{1}{12}$

Study tips

Study tips are included in the margin to draw attention to particular issues, provide a technique for understanding or remembering an element of the course content.



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The Income Statement

The information generated by a cost-volume-profit analysis can be presented as an accounting report called an Income Statement. This report details the Sales revenue the business has earned, and the costs or expenses it has incurred in the process. Figure10.8 shows the Income Statement for Terry's Birdhouses for the first week of March 2016. It assumes that 50 birdhouses were sold at $36.30 including $3.30 GST each.

Figure 10.8 ***Income Statement***

TERRY'S BIRD HOUSES
Income Statement for first week of March 2016

Sales revenue ($33 per birdhouse × 50 bird houses sold)			$1 650
Less total variable costs ($15 per birdhouse× 50 birdhouses sold)			750
Variable profit ($18 per birdhouse × 50 birdhouses sold)			**900**
Less	Fixed costs		
	Rent of factory space	300	
	Hire of market stall	60	
	Transport costs	40	400
	Net Profit (or Loss)		**$500**

The variable profit, or Gross Profit, can be determined either as the difference between the sales revenue ($1 650) and the total variable costs ($750), or the contribution margin per item ($18) multiplied by the number of items sold (**50**). Both should derive the same answer.

Combining methods

It is clear that there is no one price-setting method that can guarantee success, so each owner has to take into account a variety of pricing options when determining selling prices. A business may use a specific mark-up as a starting point for certain products; however, they would then have to consider what competitors are charging, or look at the conditions in the marketplace and adjust their prices accordingly. A business conducting a cost-volume-profit analysis would face a similar situation. The aim is to set a price that will attract as many customers as possible, and generate as much profit per item as possible, to cover expenses and provide for enough net profit to satisfy the owner's objective.

REVIEW QUESTIONS 10.6

1 **Explain** what is reported in an Income Statement.
2 **Show** how each of the following figures in the Income Statement is calculated:
- sales revenue
- total variable costs
- variable profit.

3 Using at least two examples, **explain** why it is usual to use more than one pricing method.
4 **Explain** why GST is not included in the cost-volume-profit calculation and Income Statement.

CHAPTER 10 PRICE-SETTING STRATEGIES 197

WHERE HAVE WE BEEN?

- Correct pricing is essential to provide for a profit, and allow the business (and its market share) to expand.
- Selling prices can be set using recommended retail price, competitors' prices, market reaction, percentage mark-up, a cost-volume-profit analysis, or some combination of these methods.
- When costs are well-defined and the owner knows the return he or she wants to achieve on a product then a mark-up can be applied to the cost price.
- The relationship between selling prices, cost prices, and the volume of sales (the quantity sold), is reflected in a cost-volume-profit analysis, which can be used to determine the quantity of products a business may need to sell, or the selling price it must charge, to break even.
- Variable costs vary directly with the volume of sales; fixed costs do not.
- The information generated by a cost-volume-profit analysis can be presented as an accounting report called an Income Statement and this can also be represented in a graph.

EXERCISE 10.1
PERCENTAGE MARK-UP

WB page 148

EXERCISES

Crosstown Tyres has just purchased some stock which it will fit to customers' cars. The tyres and their cost prices are listed below.

- A16 MaxiGrip $120 plus $12 GST each
- Roadrunner 1600 99 inclusive of GST each
- Mudrunner 2400 154 including $14 GST each

Required

a **Calculate** the selling price of each type of tyre if a mark-up is applied at:
- 40%
- 50%
- 100%

(You may wish to present this information as a table.)

b **State** two reasons why it may be necessary to apply a different percentage mark-up to each line of stock.

EXERCISE 10.2
PERCENTAGE MARK-UP

WB page 149

Arctic Ski Gear has provided the following information relating to some of its stock.

- Viewmaster goggles Selling price $80 plus $8 GST (mark-up 60%)
- Blinder jackets Selling price $330 including $30 GST (cost price $200 plus $20 GST)
- Yeti boots Cost price $165 inclusive of GST, mark-up 40%.

Required

a **Calculate** the cost price of Viewmaster goggles.
b **Calculate** the percentage mark-up applied to Blinder jackets.
c **Calculate** the selling price of Yeti boots that include GST.
d **Explain** why not all businesses can use a percentage mark-up to set selling prices.

End-of-chapter sections

At the end of each chapter, you will find a chapter summary *(Where have we been?)* and exam-style *Exercises*, each of which is linked with an icon to the corresponding workbook pro-forma.

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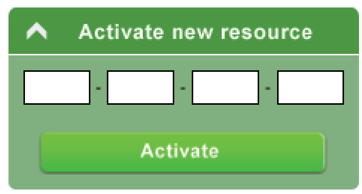

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UNIT 1

ESTABLISHING AND OPERATING A SERVICE BUSINESS

In Unit 1 of the VCE Accounting course, we will cover the following chapters:

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Where are we headed?

After completing this chapter, you should be able to:

- **explain** the role of accounting
- **identify** the users of accounting information
- **distinguish** between financial data and financial information
- **explain** the accounting process
- **state** the various forms of source documents
- **identify** and **explain** the seven Accounting Principles
- **identify** and **explain** the four Qualitative Characteristics.

CHAPTER 1

THE NATURE AND ROLE OF ACCOUNTING IN SMALL BUSINESS

KEY TERMS

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

- accounting
- financial data
- financial information
- transaction
- source documents
- recording
- reporting
- advice
- Accounting Principles
  - Entity principle
  - Going Concern principle
  - Reporting Period principle
  - Historical Cost principle
  - Consistency principle
  - Conservatism principle
  - Monetary Unit principle
- Qualitative Characteristics
  - *Relevance*
  - *Reliability*
  - *Comparability*
  - *Understandability.*

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1.1 THE NEED FOR ACCOUNTING

The next time you visit a shopping centre, take a look at the types of businesses operating there. Chances are, you'll see a variety of shops: some with names you know, and some that are unfamiliar; some selling clothes, food, or household goods; some providing services such as building or hairdressing services. Behind each of these businesses is a small business owner who has detailed knowledge of the product or service they are selling. But unfortunately, this product knowledge on its own is not enough to guarantee the success of their business. Business is not just about making and selling; it is about *managing* – managing people, managing stock, managing customers and suppliers – and, last but not least, managing cash. And if a business owner is to manage their business *effectively*, then they will need accurate information that can be relied upon to assist them in the decisions they make.

Accounting
the collection, recording and reporting of financial information to assist business owners in decision-making

This is why **accounting** is important; it is essentially an information service. It is a process that turns the day-to-day operations of a small business (such as sales over the counter or payment of bills) into a form that the owner can study to determine which areas of their business need improvement.

The purpose of accounting then is to provide business owners with financial information that will assist them in making decisions about the activities of their firm. This does not mean that accounting will ensure owners make the right decision, but it should help them to make a *more informed* decision, one which will hopefully improve the performance of the firm and its chance of success.

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Users of accounting information

Accounting in this course concentrates on small businesses where the person managing the business is also the owner of that business. Thus, any accounting information will be generated primarily for the benefit of the owner/manager. However, it is important to note that there will be a number of different parties who may also be interested in the firm's financial information. These parties are known as the 'users' of the accounting information, and may include:

- *debtors and other customers*, who may wish to know about the firm's continuing ability to provide them with stock
- *creditors and other suppliers*, who may wish to know about the firm's ability to repay what it owes them
- *banks and other financial institutions*, which will certainly want to know about the firm's current levels of debt and their ability to repay before providing them with any additional finance
- *employees*, who may wish to know about the firm's long-term viability, and their own 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, and its assets and liabilities to determine the firm's worth
- *The Australian Tax Office (ATO)*, which will require financial information for taxation purposes.

There is a wide variety of users of accounting information, and each of them may require different information. The accounting system must ensure that it can generate the information necessary to satisfy the users' needs. This means that it is the intended user, not the accounting system, who decides what information needs to be prepared.

Financial data versus financial information

Accounting is about providing information; however, that information has to come from a source and actually begins its life as raw facts (source documents) before being transformed into a form that is useful for decision-making (financial reports). Therefore we need to distinguish 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 source documents such as receipts, cheque butts, invoices, memorandums (memos) and bank statements. This data then becomes **financial information** once it has been sorted and processed into a more useable and understandable form. For instance, a pile of source documents (data) may provide specific details of the firm's transactions over the past week or so, but a pile of documents conveys no useful information. The data has not been sorted, or classified into groups, or summarised in any way. Once this information is sorted, classified and summarised, it becomes financial information that can be used as the basis for business decisions. This is the role of the accounting system.

Financial data
raw facts and figures upon which financial information is based

Financial information
financial data which has been sorted, classified and summarised into a more usable and understandable form

REVIEW QUESTIONS 1.1

1. **Define** the term 'accounting'.
2. **Explain** the purpose of accounting.
3. **Identify** the other users of accounting information and **describe** their interest in the accounting reports of a small business.
4. **Explain** the relationship between financial data and financial information.

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1.2 THE ACCOUNTING PROCESS

The process of turning financial data into financial information is facilitated by what is known as the *accounting process*.

Figure 1.1 *The accounting process*

Source documents → Records → Reports → Advice

Stage 1 Collecting source documents

Transaction
an agreement between two parties to exchange goods or services for payment

Source documents
the pieces of paper that provide both the evidence that a transaction has occurred, and the details of the transaction itself

Also known as the *input stage*, this is where the business collects the source documents relating to its **transactions**.

Source documents are the pieces of paper that provide both the evidence that a transaction has occurred, and the details of the transaction itself. Thus, source documents provide the data on which the accounting information will be based.

Common source documents include:

- *receipts*, which provide evidence of cash received by the business
- *cheque butts*, which provide evidence of cash paid by the business
- *invoices*, which provide evidence of credit transactions
- *memos*, which provide evidence of transactions within the firm itself
- *bank statements*, which not only verify the cash transactions of the business but also provide evidence of transactions that the business may have been unaware of, such as the receipt of interest or the charging of a service fee.

A business will enter into many transactions every day, and each one of these transactions must be detailed on a source document. As far as the accounting process is concerned, if it isn't on a source document, it didn't happen.

Stage 2 Recording

Recording
sorting, classifying and summarising the information contained in the source documents so that it is more usable

Once the source documents have been collected, the information they contain must be written down or 'recorded'. This is also known as the *processing stage*. **Recording** involves sorting, classifying and summarising the information contained in the source documents so that it is more usable.

Common accounting records include:

- *journals*, which record daily transactions of a common type (such as all cash paid, all cash received, or all stock purchased on credit)
- *stock cards*, which record all the movements of stock in and out of the business.

Stage 3 Reporting

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

The *output stage* of the accounting process involves taking the information that has been generated by the accounting records (the journals) and 'reporting' that financial information to the owner of the business in a form that he or she can understand. **Reporting** involves the preparation of financial statements that communicate financial information to the owner, so that decisions can be made.

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

- a *Statement of Receipts and Payments* to report on the cash the firm has received and paid, and the change in its bank balance over a period
- an *Income Statement* to report on the firm's revenues and expenses over a period
- a *Balance Sheet* to report on the firm's assets and liabilities at a particular point in time.

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Essentially, the accounting process is about collecting data from source documents; sorting it, classifying it and recording it in journals; and then communicating the information to the owner via financial reports.

Stage 4 Advice

Armed with the information presented in the reports, an accountant should be able to make some suggestions on an appropriate course of action. This is where the real skill of an accountant comes into play. Without proper **advice**, the information in the reports is as good as useless, but if the reports are explained carefully and the accountant provides the owner with a range of options, a more informed decision – and a better outcome for the business – should occur.

Advice
the provision to the owner of a range of options appropriate to their aims/objectives, and recommendations as to their suitability

REVIEW QUESTIONS 1.2

1 **Explain** the four stages of the accounting process.
2 **State** and **describe** two types of accounting records.
3 **State** and **describe** three types of accounting reports.

1.3 ACCOUNTING PRINCIPLES

As they generate financial information, accountants must follow a number of guidelines and in some cases strict rules governing the way accounting is done. Some of these guidelines are generally agreed to by all accountants as they have been followed for a long period of time. Others are enforced by law, and they have to be followed or legal sanctions may follow. Together, these guidelines dictate the way records and reports are prepared.

The main guidelines of importance to this course are:

1 *Accounting Principles*, which govern the way accounting information is recorded
2 *Qualitative Characteristics*, which inform the way accounting reports are prepared.

Accounting Principles are the 'generally accepted rules' that govern the way accounting information is recorded. In our course, the seven principles that govern the way accounting information is recorded are the:

- Entity principle
- Going Concern principle
- Reporting Period principle
- Historical Cost principle
- Consistency principle
- Conservatism principle
- Monetary Unit principle.

Accounting Principles
the generally accepted rules which govern the way accounting information is recorded

STUDY TIP

Accounting Principles and Qualitative Characteristics are linked, but different: be careful to provide exactly what is asked for in each question.

Entity principle

The **Entity principle** states that from an accounting perspective, the business is separate from the owner and other entities, and its records should be kept on this basis.

Since we are focussing on small businesses this concept may appear strange, as it is the person behind the counter, or the one actually performing the service who owns the business. Surely any money the business earns belongs to the owner and any assets or debts the owner has would be part of the business since they would be one and the same? In the eyes of the law this is true, but in terms of accounting we assume that the business and the owner are separate entities/beings. If we are to assess the

Entity principle
the business is separate from the owner and other entities, and its records should be kept on this basis

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performance of the business itself, we must only include information that is relevant to that business. The owner may have a home and a large loan (mortgage), but if neither of these items is being used by the business, it must not be included as a business asset or liability. If the owner brings these items into the business for business use, then we should treat that as a transaction between the owner and the firm as if they are separate accounting entities.

Going Concern principle

Going Concern principle
the life of the business is assumed to be continuous, and its records are kept on that basis

The **Going Concern** principle assumes that the life of the business is continuous, and its records are kept on that basis.

This principle is important because it allows us to record transactions that affect the future of the business. It allows the business to recognise transactions that occur over more than one period such as credit transactions. For instance, if we sell goods on credit we will not receive the cash for those goods until a later date. However, if we assume that our business will continue, then at some stage in the future we are likely to receive the cash from credit sales, and this allows us to record Debtors (amounts owed to us by credit customers) as an asset at the time of the sale. The same applies to amounts we owe to our creditors for our credit purchases. It also helps us to determine if an item should be treated as an asset or an expense. An expense will be consumed within one reporting period; however, an asset will provide benefit to future reporting periods. An example would be Rent Expense (expense) compared to Prepaid Rent Expense (asset).

Further, based on this assumption we can recognise long-term assets and liabilities and distinguish them from the short-term ones. This will allow the owner/manager to see the financial position of the business much more clearly and ensure that there are sufficient short and long-term assets to meet the short and long-term liabilities.

Reporting Period principle

Reporting Period principle
the life of the business must be divided into 'periods' of time to allow reports to be prepared, and the accounting records should reflect the reporting period in which a transaction occurs

The **Reporting Period principle** states that the life of the business must be divided into periods of time to allow reports to be prepared, and the accounting records should reflect the period in which a transaction occurs.

This principle is inextricably linked to the idea that the business is a going concern. Because the life of the business is assumed to be continuous, it is necessary to divide that life into arbitrary periods so that reports can be prepared. We cannot wait until the end of the business's life to calculate profit, because we are assuming that will never come, so we calculate profit for the month, or year. A reporting period can be as short as the owner requires, but cannot be longer than a year to meet taxation requirements. (Many businesses will complete a Business Activity Statement – a BAS – once per quarter, meaning their reporting period is three months.)

Historical Cost principle

Historical Cost principle
transactions should be recorded at their original purchase price, as this value is verifiable by source document evidence

The **Historical Cost principle** states that transactions should be recorded at their original purchase price, as this value is verifiable by source document evidence.

This principle applies particularly to assets, which must be recorded at their original purchase price, as this price is able to be proven, usually by reference to the source document which verifies the transaction. Any other valuation, such as resale value or replacement value, is purely an estimate and could be biased by the owner/manager's opinion.

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Consistency principle

The **Consistency principle** states that accounting methods used by the business should be kept the same from one period to the next.

In certain situations the accountant may have the option of choosing different methods of accounting for items like stock, depreciation and non-current assets. If the reports are prepared using consistent accounting methods, the owner can be confident that changes in those reports reflect changes in business performance, not simply changes in accounting methods.

This is not to suggest that once a business has decided on a method it is stuck with it forever! A business owner is able to change accounting methods but must disclose this fact to the users of the reports so that they are not misled in any way.

Consistency principle the business should use the same accounting methods to allow for the comparison of reports from one period to the next

Conservatism principle

The **Conservatism principle** states that losses should be recorded when probable, but gains only when certain (actually earned) so that liabilities and expenses are not understated and assets and revenues are not overstated.

This principle advocates a worst-case scenario approach to accounting. Because the accounting system may contain estimates, accountants should view records and reports conservatively/cautiously. It is far better to predict the worst and be pleasantly surprised than to expect the best and then get a rude shock when reality doesn't match expectations.

Conservatism principle losses should be recorded when probable, but gains only when certain so that liabilities and expenses are not understated and assets and revenues are not overstated

Monetary Unit principle

The **Monetary Unit principle** states that all items must be recorded and reported in monetary terms; that is, in the currency of the country of location where reports are being prepared and ultimately used.

This is one of the more obvious principles. It would make little sense to record the purchase of office equipment as 'one photocopier' without attaching a valuation in dollars: comparisons between periods and between businesses would be almost impossible. Some businesses have overseas operations and it would be pointless trying to report to Australian owners the performance of the overall business in a mixture of currencies; for example, recording loans in Australian dollars and stock in Japanese yen would make the information impossible to use.

Monetary Unit principle all items must be recorded and reported in the currency of the country of location where the reports are being prepared

REVIEW QUESTIONS 1.3

1. **Explain** the role of the Accounting Principles.
2. **Define** the seven Accounting Principles.
3. **Explain** why a business is assumed to have a life separate to its owner.
4. **Define** the length of a reporting period. (Beware: this is a trick question!)

1.4 QUALITATIVE CHARACTERISTICS

While the principles govern the way accounting information is recorded, reports are prepared under the guidance of what is known as the *International Framework*. This framework identifies what the reports should include, and also the qualities the reports should possess. If we follow and implement the Accounting Principles when we are recording, then our accounting reports should possess certain **Qualitative Characteristics**.

Qualitative Characteristics the qualities of the information in accounting reports

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The Qualitative Characteristics are basically the qualities we would like our accounting information to possess. The four Qualitative Characteristics of accounting reports are:

- *Relevance*
- *Reliability*
- *Comparability*
- *Understandability.*

Relevance

Relevance
reports should include all information which is useful for decision-making

Relevance states that reports should include all information that is useful for decision-making, and exclude information that is not. This information should be up-to-date, relate solely to the business and be appropriate to the decision at hand.

This characteristic is really telling us what to include in our reports, and will be present if we follow the Entity and Reporting Period principles. For example, when preparing a Balance Sheet for the business, it is not relevant to include the personal assets of the owner, as these are not being used by the business to earn revenue, and thus not useful for making decisions about future business activities. Similarly, the Income Statement should include only revenues and expenses from the current reporting period – last year's wages, or next year's sales figures will not help us assess this year's profit.

Therefore financial reports should disclose all significant information that may affect the decision-making, and omit details that will not affect decision-making. *Relevance* also relates to what to include in the reports in terms of what is *material*. Information is regarded as material if its exclusion or inaccuracy could affect user's decision-making. This refers to the level of detail in which that information is shown. For example, the asset 'Debtors' must be included in a Balance Sheet, but it would not be material to list every single debtor and the amount each owes, as this information will not affect decision-making. In fact, all it will do is make the report more difficult to read. (A successful small business might have a hundred debtors – to list them all individually in the Balance Sheet would make the report an extra five pages long!) A similar application allows us to omit cents from our reports as such a minor detail is not significant in terms of decision-making.

Reliability

Reliability
reports should contain information verified by source document evidence so that it is free from bias

Reliability states that reports should contain information that is free from bias, and thus can be relied upon for its accuracy.

This characteristic is telling us that in relation to the amounts we show in our reports, we should avoid the use of estimates. *Reliability* will be assisted via the Historical Cost principle, because the best way to ensure that information is free from bias is to make sure it is verifiable by reference to a source document. Reliable information has proof to support its accuracy and should extend to all transactions that the business will record and report; any item in any of the financial reports should be able to be traced back to its origin; that is, its source document. This way there is no room for subjectivity or guesses.

Comparability
reports should be able to be compared over time through the use of consistent accounting procedures

STUDY TIP

'Principles' apply mainly to records, and 'qualities' apply to reports. Any of the 'ability' ones are qualities rather than principles.

Comparability

Comparability states that reports should be comparable over time, and between different companies, through the use of consistent accounting procedures.

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One of the most basic uses of accounting reports is to compare performance between businesses and between periods. However, this will only be possible if consistent accounting methods have been used. Otherwise, it is difficult to tell whether changes in accounting reports are the result of changes in business performance, or simply changes in accounting procedures. Where accounting procedures are changed, this should be stated clearly in the reports (or 'disclosed'), so that the users can make more informed assessments of what the reports are telling them.

STUDY TIP

All items – even something as small as a fifty-cent stamp – must be recorded, but they might not have to be disclosed separately in the accounting reports.

Understandability

Understandability states that reports should be presented in a manner that makes it easy for the user to understand their meaning.

Understandability reports should be presented in a manner that makes it easy for the user to comprehend their meaning

It is important to remember that the most basic function of accounting reports is to communicate information to the user. Most small business owners are not accountants, and it is therefore pointless to present reports in a form that they cannot understand. For this reason, it may be more effective to present information in graphs, tables, or charts, or simply in language that is free from accounting jargon.

REVIEW QUESTIONS 1.4

1. **Define** the four Qualitative Characteristics.
2. **Explain** how the application of the Entity and Reporting Period principles ensures relevance in the accounting reports.
3. **Explain** how the application of the Historical Cost principle ensures reliability in the accounting reports.

WHERE HAVE WE BEEN?

- The purpose of accounting is to provide financial information to assist decision-making.
- The users of accounting information include the owner, debtors, creditors, banks and other lenders, prospective owners and the government through the Australian Taxation Office (ATO).
- The accounting process involves collecting source documents, recording the transactions, and then reporting financial information before advice is provided.
- Accounting Principles are the generally accepted rules governing the way accounting information is recorded, and include: Entity, Going Concern, Reporting Period, Historical Cost, Consistency, Conservatism and Monetary Unit.
- Qualitative Characteristics are the qualities we would like our accounting reports to possess, and include: *Relevance*, *Reliability*, *Comparability* and *Understandability*.

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EXERCISES

EXERCISE 1.1

THE ACCOUNTING PROCESS

WB page 4

Reorder the following stages of the accounting process:

- **a** recording transactions in journals and stock cards
- **b** collecting source documents like receipts and cheque butts
- **c** providing advice to the owner of the business
- **d** preparing financial reports.

EXERCISE 1.2

THE ACCOUNTING PROCESS

WB page 5

Identify which stage of the accounting process is performed by each of the following actions:

- **a** preparing an Income Statement
- **b** filing sales invoices
- **c** entering transactions in a cash journal
- **d** presenting the owner with alternative sources of finance.

EXERCISE 1.3

ACCOUNTING PRINCIPLES

WB page 6

Michael's business is his band – Inside Out – which provides music for functions. In each of the following situations, **identify** and **explain** which Accounting Principle has been breached.

- **a** Michael bought his mum a new computer for her home using cash from the business cheque account.
- **b** Michael thinks that the band (the business) might disband in a year or so and therefore has decided to wait until then to calculate profit.
- **c** Musical instruments that were bought six years ago are valued in the firm's Balance Sheet at what the business is likely to receive if they were sold today.
- **d** After the band toured Japan, Michael decided to record the earnings in Japanese yen.
- **e** Michael changes accounting methods every year in order to make the profit appear as big as possible.
- **f** Michael has decided to list all the liabilities of the firm as current, despite a loan that is due in three years.

EXERCISE 1.4

QUALITATIVE CHARACTERISTICS

WB page 8

Pat Silcox owns a plumbing business. For each of the following examples **identify** and **explain** the Qualitative Characteristic that has been breached.

- **a** All 35 individual debtors are listed in the Balance Sheet.
- **b** In 2015 the reports were prepared using the modified cash method, but in 2016 the accrual method was used.
- **c** Pat reported the amount for electricity based on what he thought he had paid.
- **d** Some business expenses were paid out of Pat's personal cheque book, and so do not appear in the reports.

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- **e** Some plumbing equipment has been reported in the Balance Sheet at its current market value.
- **f** In calculating profit, Pat included an amount that was received for a job that will not be completed until next month.

EXERCISE 1.5

WB page 10

ACCOUNTING PRINCIPLES AND QUALITATIVE CHARACTERISTICS

Betty believes that once transactions for the business have been recorded there is no need to keep the source documents as they take up too much storage space.

Required

- **a** Referring to one Accounting Principle, **explain** why Betty must keep all the firm's source documents.
- **b** **Identify** and **define** the Qualitative Characteristic that will be breached if Betty fails to keep the source documents.

EXERCISE 1.6

WB page 11

ACCOUNTING PRINCIPLES AND QUALITATIVE CHARACTERISTICS

During July 2016, the owner of Perfect Painting discovered a receipt for a sale that occurred two years ago and included the transaction in the reports for July 2016.

Required

- **a** Referring to one Qualitative Characteristic, **explain** why the owner must not include this transaction in the reports for July 2016.
- **b** Referring to one Accounting Principle, **explain** when the transaction should have been reported.

EXERCISE 1.7

WB page 12

ACCOUNTING PRINCIPLES AND QUALITATIVE CHARACTERISTICS

Beria Munir has withdrawn $500 cash to pay the deposit on a family holiday. Since she is the owner of the business, she sees no need to record the transaction.

Required

- **a** Referring to one Accounting Principle, **explain** the problem with Beria's approach.
- **b** **Identify** and **explain** the Qualitative Characteristic that will be undermined if this transaction is not reported.

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Where are we headed?

After completing this chapter, you should be able to:

- **identify** and **define** 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
- **identify** and **define** current and non-current items
- **prepare** a fully classified Balance Sheet
- **apply** the rules of double-entry accounting
- **identify** how transactions affect the accounting equation and Balance Sheet
- **explain** liquidity and **calculate** the Working Capital Ratio
- **explain** stability and **calculate** the Debt Ratio.

CHAPTER 2

THE ACCOUNTING EQUATION

KEY TERMS

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

- asset
- liability
- owner's equity
- equities
- Balance Sheet
- classifying/classification
- current asset
- non-current asset
- current liability
- non-current liability
- indicator
- liquidity
- Working Capital Ratio (WCR)
- stability
- Debt Ratio

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2.1 ASSETS, LIABILITIES AND OWNER'S EQUITY

The role of an accountant is to provide advice to small business owners so that they can make more informed decisions. When consulting the accountant, one of the first questions the owner should ask about their business is: what is our current financial position? The financial position of a business can be represented in two ways:

- in the form of an equation – the accounting equation
- by preparing a formal accounting report known as a Balance Sheet.

Although the presentation will be different, in each case the assessment of the firm's financial position will consider the economic resources it controls (its assets) and its obligations (its liabilities), thus allowing owners to assess their owners' equity – the *net worth* of their investment in the business.

Assets

Asset
a resource controlled by the entity (as a result of past events), from which future economic benefits are expected

An **asset** is a resource controlled by the entity (as a result of past events) from which future economic benefits are expected.

Thinking of assets as 'what the business owns' is okay as a starting point, and the items the business owns are certainly assets, but the definition above is far more sophisticated (and thus a little more complex). Let's break the definition down into its main components.

A resource controlled by an entity

From an accounting viewpoint, resources are items, physical (such as a motor vehicle) and intangible (such as a trademark), that assist the business to actually carry out its operations to earn revenue. In many cases the business will *own* these resources, but this is not necessary for the item to be classified as an asset: all that is required is that the business has *control* of the item. This means the business must be able to determine how and when the item is used. For instance, it is up to the business to determine how and when the cash in its bank account will be spent, and how and when the vehicles will be used.

Future economic benefit

To be considered as an asset, an item must be capable of bringing the firm an economic benefit some time *in the future*. That is, it must represent some sort of benefit that is yet to be received. For example, cash in the bank will provide a future economic benefit as it will be spent on things the business will need to function. An item such as office equipment will usually be used for a number of years into the future, and in each year that it is used it will bring some form of economic benefit. A common list of assets for a service business might include the cash in its bank account, its debtors (customers who owe the business for services provided to them on credit), the supplies it has on hand, and its equipment, vehicles and perhaps premises.

Liabilities

Liability
a present obligation of the entity (as a result of past events), the settlement of which is expected to result in an outflow of economic benefits

Liabilities are present obligations of the entity (arising from past events), the settlement of which is expected to result in an outflow of economic benefits.

Once again, a simplistic view of liabilities as 'what the business owes' will do only as a starting point: the definition is much broader.

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Present obligations

If the business has an *obligation* to settle a debt, then this debt is likely to be a liability. In the case of a bank overdraft (a debt owed to the bank) or creditors (a debt owed to suppliers), the business is obliged to repay the amount owing, so these items should be classified as liabilities.

In contrast, next year's wages are *not* a liability, as there is no obligation to pay the employees until they perform the work. Only those debts the business is presently *obliged* to make should be recognised as liabilities.

STUDY TIP

Look for opposites in definitions – like benefit versus sacrifice – to make them easier to remember.

Expected to result in an outflow of economic benefits

The fact that a liability is *expected* to result in an outflow of economic benefits means that the outflow, or *sacrifice*, is yet to occur. In this way, a liability could be seen as requiring a *future economic sacrifice*. This means the firm will 'give up' some kind of economic benefit, which in most cases will be cash. (However, there will be circumstances where other economic benefits, like stock or even a vehicle, are used to settle a liability.)

A common list of liabilities might include a bank overdraft, creditors, loans, and mortgages (loans secured against property).

Owner's equity

Owner's equity is defined as 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, or the owner's claim on the firm's assets. (Given that the owner and the firm are considered to be separate *entities*, it can also be described as the amount the business owes the owner.)

Owner's equity
the residual interest in the assets of the entity after the liabilities are deducted

REVIEW QUESTIONS 2.1

1 **Define** the following terms:
- asset
- liability.

2 **List** four assets and four liabilities, which would be common to most small businesses.

3 **Define** the term 'owner's equity'.

4 Referring to one Accounting Principle, **explain** why owner's equity is said to be what the 'business owes the owner'.

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2.2 THE ACCOUNTING EQUATION

Equities
claims on the assets of the firm, consisting of both liabilities and owner's equity

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

This relationship between assets, liabilities and owner's equity, is described by the accounting equation:

Assets = Liabilities + Owner's Equity

The accounting equation has exactly the same impact on small businesses as it does on multinational corporations, and all reporting entities are subject to one fundamental accounting law: *the accounting equation 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 $162 000 and liabilities worth $110 000, its owner's equity *must be* the residual (what is left over): $52 000. It is not possible for owner's equity to equal an amount *greater* than this, because there would be insufficient assets to pay the owner. Conversely, it is not possible for owner's equity to equal an amount *less* than this. If liabilities claimed $110 000, and the owner claimed only $35 000, that would leave an amount not claimed by liabilities, nor by the owner – who would then claim this remaining $17 000 worth of assets? The answer is that the owner would be entitled to this extra, so owner's equity would have to be $52 000 rather than $35 000.

REVIEW QUESTIONS 2.2

1. **Define** the term 'equities'.
2. **Explain** the difference between liabilities and owner's equity.
3. **State** the accounting equation.
4. Referring to the definition of owner's equity, **explain** why the accounting equation must always balance.

2.3 THE BALANCE SHEET

The relationship between assets, liabilities and owner's equity, as described by the accounting equation, is at the heart of the Balance Sheet.

Assets	**= Liabilities + Owner's Equity**
Assets TOTAL ASSETS	Liabilities Plus Owner's Equity TOTAL EQUITIES

Balance Sheet
an accounting report that details a firm's financial position at a particular point in time by reporting its assets, liabilities and owner's equity

The **Balance Sheet** is an accounting report that details a firm's financial position at a particular point in time by listing its assets and liabilities and the owner's equity. Figure 2.1 shows the unclassified Balance Sheet for a service firm – Handsome Hair.

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Figure 2.1 *Balance Sheet for a service firm*

HANDSOME HAIR

Balance Sheet as at 31 December 2016

Assets			**Liabilities**		
Cash at Bank	3 000		Creditors	7 000	
Stock of Shampoo	9 000		Loan – PSA Bank	12 000	19 000
Debtors	4 000		**Owner's Equity**		
Fixtures and Fittings	18 000		Capital – Henrietta		15 000
Total Assets	**34 000**		**Total Equities**		**34 000**

Note how the title of the report refers to *who* the report is prepared for (Handsome Hair), *what* type of report it is (a Balance Sheet), and *when* it is accurate (as at 31 December 2016). This reference to ***as at*** 31 December 2016 is important, because it reflects the fact that a Balance Sheet is only ever accurate on the day it is prepared. The following day, the assets and liabilities it reports will probably change, meaning a new Balance Sheet is required.

The elements of the accounting equation (assets, liabilities and owner's equity) provide the headings within the Balance Sheet, with individual items reported under those headings. 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 owed to the owner, would also be listed under this heading of owner's equity, as would the owner's drawings.)

STUDY TIP

The title of all accounting reports must state who, what and when.

REVIEW QUESTIONS 2.3

1. **Explain** the role of the Balance Sheet.
2. **List** the three pieces of information that must be present in the title of each Balance Sheet.
3. **State** one reason why a Balance Sheet is titled 'as at'.
4. **Explain** the relationship between the Balance Sheet and the accounting equation.

2.4 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.

Classifying/classification grouping together items that have some common characteristic

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'. This further classification enhances the quality of the information that will allow further analysis and more informed decisions to be made.

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Current versus non-current assets

All assets are defined as future economic benefits, but it is the definition of 'future' that determines whether they are 'current' or 'non-current'. Put simply, assets are classified as 'current' or 'non-current' according to the length of time for which the benefit is expected to flow.

If the asset is expected to be sold, used up or turned into cash within a year; that is, if it is expected to provide an economic benefit for 12 months or less, then it should be classified as a **current asset**. Common current assets include the cash in the business's bank account, any stock of supplies it is holding for completing a job, and the amounts owed to it by its debtors. Any assets that are expected to provide an economic benefit for more than 12 months, such as business equipment, vehicles, or shop fittings, should be classified as **non-current assets**.

Current asset
a resource controlled by the entity (as a result of a past event), from which a future economic benefit is expected for in 12 months or less

Non-current asset
a resource controlled by the entity (as a result of a past event), from which a future economic benefit is expected for more than 12 months

Current liability
a present obligation of the entity (arising from past events), the settlement of which is expected to result in an outflow of economic benefits in the next 12 months

Non-current liability
a present obligation of the entity (arising from past events), the settlement of which is expected to result in an outflow of economic benefits sometime after the next 12 months

Current versus non-current liabilities

The same 12 month test applies to liabilities. Items such as obligations to creditors, which are expected to be met sometime in the next 12 months, are classified as **current liabilities**. A bank overdraft would also be classified as a current liability, *not* so much because it *will be* met in the next 12 months as because it *can be*. (Although it is unlikely to occur, it is possible that an overdraft could be called in for repayment on very short notice.)

By contrast, **non-current liabilities** are present obligations that must be met sometime after the next 12 months. Longer-term loans like mortgages are the most common non-current liabilities.

Loans

When classifying loans, it is important to recognise that some of the amount owing may be current, and some non-current. For example, with a loan like a mortgage, the lender (usually a bank) would expect the borrower (the business) to make regular instalments to pay off the principal rather than pay one massive amount at the end of the loan. In such a 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.

Assuming the Loan – PSA Bank is repayable in equal instalments of $3 000 per year (or per annum), then the classified Balance Sheet of Handsome Hair would be as is shown in Figure 2.2.

Figure 2.2 ***Classified Balance Sheet***

HANDSOME HAIR
Balance Sheet as at 31 December 2016

Current Assets			**Current Liabilities**		
Cash at Bank	3 000		Creditors	7 000	
Stock of Shampoo	9 000		Loan – PSA Bank	3 000	10 000
Debtors	4 000	16 000			
			Non-Current Liabilities		
Non-Current Assets			Loan – PSA Bank		9 000
Fixtures and Fittings		18 000			
			Owner's Equity		
			Capital – Henrietta		15 000
Total Assets		**$34 000**	**Total Equities**		**$34 000**

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In this example, the Loan – PSA Bank for $12 000 has been split between current and non-current liabilities: $3 000 must be repaid in the next 12 months, with the remaining $9 000 due for repayment sometime after that.

(Note also the use of columns – where necessary, the left-hand column on each side of the Balance Sheet has been used for listing *individual* amounts, leaving only the *total* of each classification in the right-hand column. This is a simple mechanism for improving the layout of the report, and making it more user-friendly.)

STUDY TIP

Check the date when a loan has to be repaid – this is the key to whether it is current or non-current.

REVIEW QUESTIONS 2.4

1. **Define** the term 'classification'.
2. **Distinguish** between a current asset and a non-current asset.
3. **List** three assets that would be classified as current, and three that would be classified as non-current.
4. **Distinguish** between a current liability and a non-current liability.
5. **List** three liabilities that would be classified as current, and three that would be classified as non-current.

2.5 TRANSACTIONS AND THE ACCOUNTING EQUATION

When a firm exchanges goods and/or services with another entity, its accounting equation will change in a variety of ways. In fact, every transaction will change at least two items in the accounting equation but after those changes are recorded, the accounting equation must still balance. This is known as *double-entry accounting*.

1 Every transaction will affect at least two items in the accounting equation.
2 After recording these changes, the accounting equation must still balance.

Because the Balance Sheet is based on the accounting equation, the same two rules of double-entry accounting also apply to the Balance Sheet.

EXAMPLE

The following transactions for Rupert's Roof Repairs occurred during January 2016.

Jan. 1 Rupert contributed $16 000 cash to commence business as Rupert's Roof Repairs.

As a result of this transaction, the business now has $16 000 in its bank account – an increase in its assets of $16 000. 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 $16 000.

The accounting equation for Rupert's Roof Repairs after this transaction would be:

Assets	=	Liabilities	+	Owner's Equity
↑ Bank $16 000				↑ Capital $16 000

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The Balance Sheet would show:

RUPERT'S ROOF REPAIRS
Balance Sheet as at 1 January 2016

Assets		**Liabilities**	
Bank	16 000	nil	
		Owner's Equity	
		Capital – Rupert	16 000
Total Assets	**$16 000**	**Total Equities**	**$16 000**

Note how the transaction has changed two items – Bank (asset) and Capital (owner's equity) – both of which have increased by $16 000. As a result, the accounting equation still balances.

2 January Purchased a van on credit from Vic's Vans for $23 000

This time it is not the Bank which increases, but a different asset called Van. On the other side of the accounting equation, a liability called Creditors is created, representing the amount owed to Vic's Vans. The effect on the accounting equation for Rupert's Roof Repairs after this transaction would be:

Assets	=	Liabilities	+	Owner's Equity
↑ Van $23 000		↑Creditor – Vic's Vans $23 000		

The Balance Sheet for Rupert's Roof Repair's after this transaction would be:

RUPERT'S ROOF REPAIRS
Balance Sheet as at 2 January 2016

Assets		**Liabilities**	
Bank	16 000	Creditors	23 000
Van	23 000	**Owner's Equity**	
		Capital – Rupert	16 000
Total Assets	**$39 000**	**Total Equities**	**$39 000**

While there is no change to Bank, the new asset Van increases the assets to $39 000. On the other side of the Balance Sheet, Creditors increases equities to the same amount and once again, the Balance Sheet, and the accounting equation on which it is based, balances.

3 January Paid $14 000 to purchase new safety equipment

This transaction creates a third asset, Safety Equipment, but in the process decreases Bank. Thus, the amounts of the individual assets change without changing the total assets figure. There is in fact no change on the equities side proving that although two items must change, they can both be on the same side of the accounting equation/ Balance Sheet, provided that the result still balances. The effect on the accounting equation for Rupert's Roof Repairs after this transaction would be:

Assets	=	Liabilities	+	Owner's Equity
↓ Bank $14 000				
↑ Safety Equipment $14 000				

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The Balance Sheet for Rupert's Roof Repairs after this transaction would be:

RUPERT'S ROOF REPAIRS
Balance Sheet as at 3 January 2016

Assets		**Liabilities**	
Bank	2 000	Creditors	23 000
Van	23 000	**Owner's Equity**	
Safety Equipment	14 000	Capital – Rupert	16 000
Total Assets	**$39 000**	**Total Equities**	**$39 000**

Each and every transaction will have at least two effects on the accounting equation, and after these effects have been recorded the equation must balance. If it does not balance, then the recording is incorrect.

REVIEW QUESTIONS 2.5

State the two rules of double-entry accounting.

2.6 PERFORMANCE INDICATORS AND THE BALANCE SHEET

The classification of the items in the Balance Sheet as current or non-current enhances the usefulness of the report because it allows for the calculation of performance **indicators**. These indicators, or ratios as they are sometimes known, compare items within the Balance Sheet in order to assist management in determining the financial health of their business. Specifically, the Balance Sheet allows for the calculation of indicators to assess the firm's liquidity and stability.

Indicator
a measure that expresses profitability, liquidity or stability in terms of the relationship between two different elements of performance

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Liquidity

Liquidity
the ability of the business to meet its short-term debts as they fall due

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

Liquidity refers to the ability of a business to meet its debts as they fall due, which is essential to its survival. One of the most popular measures of liquidity is the **Working Capital Ratio (WCR)**. This indicator compares a firm's current assets and current liabilities to determine whether the business has sufficient economic resources to cover its present obligations.

Working Capital Ratio formula

$$\textbf{Working Capital Ratio (WCR)} = \frac{\textbf{Current Assets}}{\textbf{Current Liabilities}}$$

EXAMPLE

As at 28 February 2016, the Balance Sheet of Millsy's Music Lessons showed current assets of $7 500, and current liabilities of $5 000.

Figure 2.3 *Calculating Working Capital Ratio*

$$\textbf{Working Capital Ratio (WCR)} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$
$$= \frac{7\,500}{5\,000}$$
$$= \mathbf{1.5 : 1}$$

This indicates that the firm has $1.50 of current assets for every $1.00 of current liabilities.

Assessing Working Capital Ratio

What is a suitable level for the WCR? As long as the ratio is above a minimum of 1:1 then this would indicate sufficient liquidity, as there are enough current assets to cover the current liabilities of the business. Obviously a Working Capital Ratio of less than 1:1 is worrying; however, the owner should also be wary of having a Working Capital Ratio that is *too high* as this may indicate that the business has an overabundance of current assets that are not being employed effectively.

Stability
the ability of the business to meet its debts and continue its operations in the long term

Debt Ratio
measures the proportion of the firm's assets that are funded by external sources

Stability

Whereas liquidity focuses on the short-term, **stability** concentrates on the firm's ability to meet its obligations in the longer term. A good indicator of stability is the **Debt Ratio**, which measures what percentage of the firm's assets are funded by external (outside) sources. In this way, it measures the firm's reliance on outside finance.

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Debt Ratio formula

Debt Ratio	**=**	$\frac{\textbf{Total Liabilities}}{\textbf{Total Assets}}$	**×**	**100**

EXAMPLE

As at 30 June 2016, the Balance Sheet of Choice Physios showed Total Liabilities of $170 000 and Total Assets of $200 000.

Figure 2.4 ***Calculating the Debt Ratio***

Debt Ratio	=	$\frac{\text{Total Liabilities}}{\text{Total Assets}}$	×	100
	=	$\frac{170\,000}{200\,000}$	×	100
	=	**85%**		

This means that 85% of the firm's assets are financed by external debt (liabilities), with the remaining 15% funded by the owner's capital.

Assessing the Debt Ratio

There is no set level at which the Debt Ratio is said to be satisfactory, but it is a good indicator of financial risk. A high Debt Ratio means that a high proportion of the firm's assets are funded by external sources. This in turn means there is pressure on the firm's cash flow to meet principal and interest repayments, and therefore a greater risk of the business facing financial collapse.

The Debt Ratio will increase from increased borrowing by the business; however, changes in owner's equity will also affect the Debt Ratio, not just changes in the assets and liabilities. Excessive drawings that decrease owner's equity will increase the Debt Ratio and the risk to the business as well as affecting the level of liquidity. However, capital contributions by the owner can reduce the Debt Ratio and the financial risk of the business as well as providing short-term relief to liquidity.

STUDY TIP

The Debt Ratio considers all of the assets and liabilities, not just the non-current items.

REVIEW QUESTIONS 2.6

1 **Explain** one benefit of classifying the items in a Balance Sheet as current or non-current.
2 **Define** the term 'liquidity'.
3 **State** what is measured by the Working Capital Ratio. **Show** how it is calculated.
4 **Explain** how the Working Capital Ratio can be used to assess whether liquidity is satisfactory or not.
5 **Define** the term 'stability'.
6 **State** what is measured by the Debt Ratio. **Show** how it is calculated.
7 **Explain** how a high Debt Ratio can have negative consequences for liquidity.

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WHERE HAVE WE BEEN?

- Assets are resources controlled by the entity (as a result of past events), from which future economic benefits are expected.
- Liabilities are present obligations of the entity (arising from past events), the settlement of which is expected to result in an outflow of economic benefits.
- Owner's equity is the residual interest in the assets of the entity after the liabilities are deducted.
- The relationship between assets, liabilities and owner's equity is described by the accounting equation, which must always balance.
- The Balance Sheet details the firm's financial position at a particular point in time by listing its assets and liabilities, and the owner's equity.
- Every transaction will change at least two items in the accounting equation but after those changes are recorded, the accounting equation must still balance.
- Assets and liabilities, can be classified as current or non-current depending on whether they will exist for more or less than 12 months.
- Classification in the Balance Sheet as current or non-current enhances the usefulness of the report because it allows for the calculation of performance indicators.
- Liquidity refers to the ability of a business to meet its debts as they fall due and can be measured using the Working Capital Ratio, which should be above 1:1.
- Stability refers to the ability of a business to meet its long-term obligations and remain a going concern.
- The Debt Ratio measures the percentage of the firm's assets that are funded by external (outside) sources, and is a good indicator of financial risk.

EXERCISES

EXERCISE 2.1
ASSETS, LIABILITIES AND OWNER'S EQUITY

WB page 14

Classify each of the following items as an asset, a liability or owner's equity.

a Stock of supplies
b Mortgage
c Cash at bank
d Debtors
e Loan
f Creditors
g Equipment
h Bank overdraft
i Vehicle
j Capital

EXERCISE 2.2
ACCOUNTING EQUATION

WB page 15

For each of the following examples, use the accounting equation to **calculate** the value of owner's equity.

a Mark's Dog Washing Service has $4 500 in assets, but owes $500 to the local newspaper for advertising.
b Bianca owns and operates Bianca for Hair. The firm has $5 600 in assets, but owes a supplier $250.

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- **c** Andrew is the owner of an accounting firm. He owns a car worth $1 500, a stereo worth $800, clothing worth $750 and other assets worth $1 000. His firm owns office equipment worth $15 000 and a vehicle worth $20 000, but owes $600 to an employee.
- **d** Sasha Enterprises has $4 500 in the bank, but owes $1 000 on a loan it took out to buy equipment. The equipment is worth $1 500, and a company car is worth $17 000. A client still owes $500 for work done by the firm, and Sasha owes $150 on her Visa card.

EXERCISE 2.3
ACCOUNTING EQUATION

WB page 16

For each of the following examples, use the accounting equation to **calculate** the value of the assets.

- **a** John knows that his equity in his firm is $3 000, and that his firm owes $600 to a supplier.
- **b** Ella has equity of $10 000 in her business, and has $5 000 worth of personal assets. She owes Branko $500, and the firm has debts of $3 000.

EXERCISE 2.4
CLASSIFICATION

WB page 17

Classify each of the following items as a current asset, non-current asset, current liability or non-current liability.

- **a** Creditors
- **b** Cash on hand
- **c** Equipment
- **d** Premises
- **e** Stock of supplies
- **f** Wages owing to employees
- **g** Capital
- **h** Debtors
- **i** Mortgage owing on premises
- **j** Bank overdraft
- **k** Vehicles.

EXERCISE 2.5
ACCOUNTING EQUATION

WB page 18

For each of the following examples, use the accounting equation to **calculate** the missing figures.

	Current Assets	Non-Current Assets	Current Liabilities	Non-Current Liabilities	Owner's Equity
a	14 200	10 400		6 400	10 300
b		15 800	400	2 000	17 800
c	12 000	18 000	600	1 600	
d	41 300	25 200	19 900		29 600

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EXERCISE 2.6
CLASSIFIED BALANCE SHEET

WB page 19

As at 31 May 2016, the assets and liabilities of 'Paris for Hair' were as follows:

Stock of hair care products	$ 42 000
Creditors	3 400
Loan – nab (repayable $6 000 per annum)	30 000
Shop Fittings	22 000
Bank Overdraft	4 900
Debtors	8 600
Office Equipment	15 300

The shop fittings were purchased three years ago for $22 000, but the owner has estimated their current value at $8 200.

Required

a Referring to one Qualitative Characteristic, **explain** why the shop fittings must be valued at $22 000.

b **Calculate** Owner's Equity as at 31 May 2016.

* **c** **Prepare** a classified Balance Sheet for Paris for Hair as at 31 May 2016.

d Referring to your answer to part 'c', **explain** your treatment of Office Equipment.

EXERCISE 2.7
CLASSIFIED BALANCE SHEET

WB page 20

Noel Season is the owner of Noel's Plumbing and has provided the following list of assets and liabilities as at 1 February 2016.

Creditors	8 500
Stock of Fittings	12 000
Wages Owing	400
Tools	12 000
Mortgage (due 2026) (repayable $8 000 per year)	80 000
Cash at Bank	3 000
Premises	90 000
Loan – nab (due Dec. 2016)	20 000
Company Vans	30 000
Debtors	1 500
Owner's Equity	?

Required

* **a** **Prepare** a Balance Sheet for Noel's Plumbing as at 1 February 2016.

b Referring to your answer to part 'a', **explain** your treatment of:
- Stock of Fittings
- Loan – nab.

c **State** one reason why a Balance Sheet is titled 'as at'.

d **State** two external users who may be interested in the Balance Sheet of Noel's Plumbing.

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EXERCISE 2.8
CLASSIFIED BALANCE SHEET

WB page 22

Robert James owns and operates Rob's CD Library, and has provided the following list of the firm's assets and equities as at 31 December 2016.

Wages Owing	1 200
Mortgage (repayable $500 per month)	80 000
Equipment	12 000
Debtors	1 500
Owing to Suppliers	4 500
Cash at Bank	1 000
Stock of CD's	24 000
Premises	95 000
Owner's Equity	?

Required

a **Calculate** Rob's owner's equity as at 31 December 2016.

* b **Prepare** a Balance Sheet for Rob's CD Library as at 31 December 2016.

c Referring to your answer to part 'a', **explain** your treatment of:
- Debtors
- Wages Owing.

d **State** one reason why liabilities and owner's equity are classified as equities.

EXERCISE 2.9
TRANSACTIONS AND THE ACCOUNTING EQUATION

WB page 24

Jan Philpott is the owner of Jan's Public Relations, and has supplied the following details relating to the firm's transactions for February 2016.

Feb.	1	Purchased a new data projector on credit from EZ Supplies $1 000
	2	Made a loan repayment of $700
	3	Jan took home stationery worth $40 for personal use
	4	Paid $450 for stationery
	5	Paid EZ Supplies $300

Required

a **Show** the effect of each transaction on the accounting equation on Jan's Public Relations.

b Referring to one Accounting Principle, **explain** why the transaction on 3 February 2016 results in a decrease in owner's equity.

c Referring to one Qualitative Characteristic, **explain** why it is important that Jan keeps the source document for the new data projector.

EXERCISE 2.10
TRANSACTIONS AND THE ACCOUNTING EQUATION

WB page 26

Murray Cook is the owner of Cook's Catering, and has supplied the following details relating to the firm's transactions for April 2016.

April	1	Purchased new oven worth $3 000 on credit
	2	Received $300 from a debtor
	3	Paid $700 for a kitchen trolley
	4	Murray donated his personal computer to the firm (It was worth $1 200.)
	5	Borrowed $10 000 from the Patterson Bank

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Required

- **a** **Show** the effect of each transaction on the accounting equation on Cook's Catering.
- **b** Referring to one Qualitative Characteristic, **explain** why the transaction on 4 April 2016 results in an increase in Owner's Equity.
- **c** **Explain** how the new oven should be classified in the Balance Sheet of Cook's Catering.

EXERCISE 2.11
WORKING CAPITAL RATIO

page 28

As at 30 June 2016, McCormack Motors had current assets of $40 000 and current liabilities of $30 000.

Required

- **a** **Calculate** the Working Capital Ratio for McCormack Motors as at 30 June 2016.
- **b** Referring to your answer to part 'a', **explain** whether the liquidity of McCormack Motors is satisfactory or unsatisfactory.
- **c** **Explain** the role of a classified Balance Sheet in calculating the Working Capital Ratio.

EXERCISE 2.12
DEBT RATIO

page 29

As at 31 January 2016, All Suits Dry Cleaning had total liabilities of $120 000 and total assets of $300 000.

Required

- **a** **Calculate** the Debt Ratio for All Suits Dry Cleaning as at 31 January 2016.
- **b** Referring to your answer to part 'a', **explain** what this indicator measures.
- **c** **Explain** why the Debt Ratio is a good indicator of risk.

EXERCISE 2.13
INDICATORS

page 30

Quick as a Flash processes photos, and has presented the following report as at 31 May 2016.

QUICK AS A FLASH

Balance Sheet as at 31 May 2016

Current Assets			**Current Liabilities**		
Processing Supplies	3 800		Creditors	2 000	
Debtors	1 000		Mortgage	18 000	20 000
Bank	200	5 000			
			Non-Current Liabilities		
Non-Current Assets			Mortgage		85 000
Imaging Equipment	45 000				
Premises	160 000	205 000	**Owner's Equity**		
			Capital – Bright		105 000
Total Assets		**$210 000**	**Total Equities**		**$ 210 000**

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Required

- **a** **Calculate** the Working Capital Ratio for Quick as a Flash as at 31 May 2016.
- **b** **Comment** on the liquidity of Quick as a Flash as at 31 May 2016.
- **c** **Calculate** the Debt Ratio for Quick as a Flash as at 31 May 2016.
- **d** **State** one action the owner could take to improve both the Working Capital Ratio and the Debt Ratio.

EXERCISE 2.14
INDICATORS

WB page 31

Maria Khallouff owns Checked Pages, an editing business, and has provided the following report as at 31 August 2016.

CHECKED PAGES

Balance Sheet as at 31 August 2016

Current Assets			**Current Liabilities**		
Bank	14 000		Creditors	12 000	
Debtors	6 000		Mortgage – ANZ	6 000	18 000
Stock of Materials	16 000	36 000			
			Non-Current Liabilities		
Non-Current Assets			Mortgage		72 000
Vehicle	10 000				
Printing Equipment	59 000		**Owner's Equity**		
Land and building	120 000	189 000	Capital – Khallouf		135 000
Total Assets		**$225 000**	**Total Equities**		**$225 000**

Required

- **a** Referring to one Qualitative Characteristic, **explain** why the Balance Sheet does not identify each individual creditor of Checked Pages.
- **b** **Calculate** the Working Capital Ratio for Checked Pages as at 31 August 2016.
- **c** Referring to your answer to part 'b', **explain** whether this level of liquidity is satisfactory.
- **d** **Calculate** the Debt Ratio for Checked Pages as at 31 August 2016.
- **e** After inspecting the Balance Sheet, Maria has decided to use $11 000 cash to purchase another vehicle. **State** the effect (increase/decrease/no effect) of this decision on:
  - Working Capital Ratio
  - the Debt Ratio.

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EXERCISE 2.15
CLASSIFIED BALANCE SHEET

WB page 32

The unclassified Balance Sheet for Andrew's Painting Service as at 30 September 2016 showed the following information.

ANDREW'S PAINTING SERVICE

Balance Sheet (unclassified) as at 30 September 2016

Assets	**$**	**Equities**	**$**
Cash at Bank	1 200	Creditors	5 000
Debtors	1 000	Wages Owing	500
Printing Equipment	12 000	Loan – ANZ	30 000
Vans	25 000	(repayable $6000 p.a.)	
Stock of Paint	10 000	Owner's Equity – Andrew	?
Total Assets	**$49 200**	**Total Equities**	**$49 200**

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

Oct. 1 Paid $1 000 to a creditor
2 Borrowed $8 000 from Barry's Bank (loan to repaid in October 2017)
3 Received $400 from a debtor
4 Bought more paint on credit: $2 000
5 Andrew withdrew $200 paint for his own purposes
6 Sold $1 500 worth of equipment for cash
7 Paid the wages owing
8 Andrew contributed to the firm's assets his personal computer worth $4 000

Required

a **Calculate** capital as at 30 September 2016.

b **Show** the effect on the accounting equation of each transaction for October 2016.

* **c** **Prepare** a classified Balance Sheet for Andrew's Painting Service as at 8 October 2016.

d **Explain** one benefit Andrew will derive by classifying the Balance Sheet.

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Where are we headed?

After completing this chapter, you should be able to:

- **define** a small business
- **list** the reasons for owning a small business
- **identify** the alternatives to establishing a small business
- **identify** the resources required to establish a small business
- **identify** the personal qualities of a successful small business owner
- **distinguish** between businesses based on the nature of their operations
- **identify** and **explain** the advantages and disadvantages of various ownership structures
- **identify** and **explain** the advantages and disadvantages of establishing a small business or buying an existing business or a franchise
- **explain** why some small businesses succeed where others fail
- **identify** sources of assistance for small business owners.

CHAPTER 3

SMALL BUSINESS

KEY TERMS

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

- small business
- term deposit
- negative gearing
- share
- dividend
- franking credit
- cost price
- sole proprietorship
- unlimited liability
- partnership
- proprietary company
- limited liability
- goodwill
- franchise
- franchisee
- franchisor

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3.1 SMALL BUSINESS

Small businesses can be identified by the following characteristics:

- They are independently owned and operated.
- They are closely controlled by the owner/manager who also contributes most, if not all, of the operating capital.
- The principal decision-making is made by the owner/manager.

Small business
a business in which the owner and manager is the same person, and which employs fewer than fifteen people

A simple definition of a small business is any business in which the owner and manager is the same person (or people), and which employs fewer than 15 people. The number of employees is a useful distinguishing feature to determine a small business from a medium or large business. A medium business would employ 15 or more people but less than 200, while a large business would employ over 200 people.

However, with the exception of a 'sole proprietorship', which has one owner, the size of the business should not be taken as evidence of its business structure. Small, medium and large businesses can all be sole proprietorships, partnerships or companies. (This will be covered in detail later in this chapter).

The small business sector

Politicians and economists frequently cite small businesses as the engine room of the Australian economy, but just how important are they? In Australia there are approximately 2.1 million private sector small businesses, and this represents roughly 96% of all private sector businesses.

Small businesses play a vital role in the Australian economy as they employ almost 5 million people, which is almost half of all private sector employment. They also contribute strongly to Australia's level of economic activity and production, and exports, which (most importantly from the government's perspective) are a major source of tax revenue.

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REVIEW QUESTIONS 3.1

1. **Define** the term 'small business'.
2. **State** three characteristics that distinguish a business as small.
3. **Explain** two reasons why small businesses are important to the Australian economy.

3.2 BECOMING A SMALL BUSINESS OWNER

Unfortunately, the list of successful small business owners is dwarfed by those that fail (see later in this chapter). The decision to become a small business owner should thus not be taken lightly, but rather be the product of a careful assessment of the prospective owner's motivation, strengths and weaknesses, and the costs and benefits of ownership itself.

Reasons for becoming a small business owner

The reasons why people choose to own their own business are as many and varied as the businesses they operate. Some of the more common reasons are:

Profit motive

Rightly or wrongly, many people think that owning a small business is a gateway to financial riches and see becoming an owner as the best way to improve their income. Although wealth and security are by no means guaranteed, the profit motive is a powerful factor in the decision to purchase or start a business.

A desire for greater freedom/independence – to be your own boss

Many people become frustrated as employees, either because they think they have a better way of doing things, or because they feel that their efforts are under-recognised. By owning their own business, small business owners gain their independence as well as all the financial rewards that their hard work has gained. This extends to being able to choose the hours they work, and the way that work is done.

Identifying a market opportunity

A business opportunity can sometimes present itself in a way that an ambitious or creative person cannot ignore. An idea for a new or cheaper/better quality product, or a service that is not currently being provided can be a strong incentive to go into business for yourself so that the market demand is satisfied (not to mention the recognition – and hopefully profits – that will eventuate).

Unemployment

Due to retrenchment or other factors some individuals may discover that self-employment is their only option. The old saying about one door closing and another one opening is apt for those who are forced into what can turn out to be a highly rewarding small business.

While there are certainly benefits to be gained from owning a small business, there are also costs and risks involved. The independence that comes with being the owner is accompanied by extra responsibilities, meaning many hours of hard work and periods of stress. The loss of a secure income and other benefits (like paid holidays, sick pay and employer-funded superannuation) that go with salaried employment must be considered, as must the risk owners are taking by investing their own funds in the business – if the business fails, this investment will be lost.

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REVIEW QUESTIONS 3.2

1. **List** four reasons why an individual might want to own their own small business.
2. **List** three costs involved with leaving salaried employment to become a small business owner.

3.3 ALTERNATIVES TO SMALL BUSINESS OWNERSHIP

As stated above, the potential small business owner accepts a large financial risk if he or she commences their own small business. The individual has their savings at risk so it would not be unreasonable for that person to explore alternatives. Later in Chapter 3, we explore a profitability indicator called *Return on Owner's Investment (ROI).* ROI measures the return (profit) generated for the owner on the capital they have invested. Specifically, it shows the profit earned per dollar invested by the owner, so it is useful in assessing how profitable the business is as an investment. This also allows a direct comparison with other alternative investments.

Alternative investments

The difficulty is that, given the number of alternatives, it can be difficult to choose an investment option. Each investment has its own specific levels of risk, achievable rates of return for the owner, and advantages and disadvantages, and all these factors must be taken into account. Risky investments are likely to offer a higher rate of return. Investing carries not only the risk that a return will not be earned, but also the risk that the initial investment may be lost. Some investors would rather play it safe and achieve a moderate return on their funds, whereas others want to achieve a greater return on their funds and are willing to take the risks associated to achieve that return.

Another factor that an investor must take into account is the term (length) of the investment. For investment options subject to business cycles and other fluctuations, a long-term investment may be required to generate an adequate return.

Similarly, the investor also has to consider the liquidity of the investment: how easily it can be converted back into cash if the individual needed their funds urgently.

There are three main asset groups that can be used as investment options:

- cash
- property
- shares.

Within each asset grouping, there are many different individual investment options, each with its own advantages and disadvantages. This list is by no means exhaustive and only highlights a number of investment options available to investors.

Investment option 1: Cash

Bank accounts

The most basic and common form of cash investment is to put money in the bank or a similar institution such as a building society or credit union. It has the advantage that the cash is readily accessible and that there is virtually no risk of the business losing its investment as the government guarantees all bank deposits. However, basic on-call business bank accounts pay a very low return, with interest on deposits earned at only half a percent to one-and-a-half per cent. (It is highly possible that when account-keeping fees are factored in, the return on a bank account could actually be negative.)

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Term deposits

Term deposits are an investment option available from banks that does provide a higher rate of interest in return for agreeing to invest for a set term. The term can vary, ranging from three months to five years. If the investor requires the funds before the end of the term, they may be available but this would be at the cost of any interest that would have been earned, plus additional costs for early termination of the investment.

Term deposit
an investment option that requires the investor to agree to invest for a specified length of time

Investment option 2: Property

Investing in property essentially means buying real estate of some type, which can provide both a **capital gain** and an income stream in the form of rent. Some investors actually borrow to invest in property in order to earn a capital gain from the increase in its market value. In addition, as long as the rental income is less than the cost of the property (including the interest payments on the loan), the investor will make a 'loss', thus reducing their taxable income. This is known as **negative gearing**.

Capital gain
a return generated from an investment in the form of an increase in the value of an asset that can therefore be sold for more than its purchase cost

Negative gearing
a strategy used by investors to reduce their taxable income by purchasing property which generates rental income which is less than the costs it incurs

Risks

Given the dual returns available from property, it can seem like a very attractive option. However, there are some factors that can make property a risky investment.

The property market

The general wisdom has it that property prices double every seven years, but this is not guaranteed. The property market is subject to fluctuations, meaning that timing is crucial: purchasing at the height of the market (when prices have peaked) may mean that the investor suffers a short-term loss, or a smaller capital gain. Also, growth rates can vary dramatically according to the location of the property, meaning that investors must conduct careful and thorough research before making their investments.

Interest rates

Property prices are dependent on the ability of buyers to pay, which is in turn dependent on the cost of borrowing. If interest rates rise, buyers are less willing to pay high prices meaning the market value of the property may fall. This will reduce any capital gain the investor may make. Further, the costs associated with paying loans may become unmanageable for the investor who may then be forced to sell in unfavourable circumstances or market conditions.

Rent

Unfortunately rental income is not guaranteed. Some investors can find it difficult to find a tenant for their property or to achieve their desired rental income. Bad tenants can create costs ranging from a loss of rental income to the cost of fixing damage or neglect.

Liquidity

Property must be viewed as a medium to long-term investment, because disposal is not only costly, but also time-consuming. Once a buyer is found and the property is sold (which can take time), it can then take up to 120 days for settlement.

Although property can provide good returns in the form of capital gains, this gain can only be realised if the property is sold, and any profit is then subject to **capital gains tax**. On its own, the rental income from property is unlikely to match the return on other less risky investments. However, the combination of the two forms of return makes it a good investment tool, especially as a long-term investment.

Capital gains tax
a form of taxation charged when a gain is made on the sale of an asset

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Investment option 3: Shares

Share
a document that verifies part-ownership in a public company

Dividend
a share of the profit earned by a company that is distributed to shareholders

When an investor buys **shares** they are buying part-ownership of a business, giving the shareholder some say in the running of the company. In terms of a return, it gives the shareholder access to an income stream in the form of **dividends** (a share of the firm's profit). In addition, the ability to trade shares through the stock exchange gives the shareholder a potential for capital gains if the market value of the shares increases.

Owning shares can bring a variety of benefits, including:

Greater returns

Various studies have shown that Australian shares have out-performed other forms of investment. Many investments taken with a long-term perspective tend to provide higher and more consistent returns, and shares happen to top this list.

Tax benefits

Franking credit
Dividend income received by the investor on which the company has already paid tax

Many dividends are paid to investors from profits that have already had company tax deducted from them, reducing the tax that must be paid by the investor. This is referred to as a **franking credit**. Only if the investor is in a tax bracket higher than the company tax rate of 30%, will they have to pay any tax on the dividend income. In addition, if the shares have been held for more than 12 months, they can qualify for a 50% reduction in capital gains tax. (Any shares sold at a capital loss can be used to offset any other capital gains.)

Diversification

There are over 2 200 different companies' shares listed on the stock exchange, allowing an investment in a variety of markets and industry areas all at the one time. This means that if one segment of the market is under-performing, it may be offset by strong performance in another. Similarly, a risky investment in one company that promises a high return can be offset by a safer investment in a company offering a less lucrative return.

Flexibility

Shares themselves are quite liquid and can be sold quickly to return cash to the investor if it is required.

Risks

Capital loss
the loss incurred when an asset is sold at a price less than its initial purchase price

Investing in shares carries risks similar to those involved with property, with the dividend return dependent on the profitability of the company, and the capital gain dependent on the share market. An investor who holds shares in an unprofitable company will see little or no return in terms of dividends, and is also likely to suffer a **capital loss** as the market value of their shares falls below their purchase price.

Fluctuations in the market value of shares are a daily occurrence. Speculative or short-term investors attempt to predict these fluctuations by purchasing shares in new industries and businesses and then selling them when the market price is high. Investors who take this approach are more interested in a capital gain than dividends. Long-term investors on the other hand are more likely to purchase shares in companies that have a history of earning good profits, and distributing them as dividends.

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REVIEW QUESTIONS 3.3

1 **Explain** the main difference between a bank account and a term deposit.
2 **List** the main returns to be gained from investing in property.
3 **Explain** the main benefit of negative gearing.
4 **Explain** the factors that can make property a risky investment.
5 **List** the benefits of becoming a shareholder.
6 **Explain** the benefits of investing in shares rather than other investment options.
7 **Explain** the risks associated with owning shares.
8 **Explain** why an individual should explore alternative investments when considering starting their own small business.

3.4 RESOURCES REQUIRED TO ESTABLISH A SMALL BUSINESS

Having explored all alternatives an individual may still come to the decision that commencing their own small business is their best option. The individual then needs to identify the resources required to commence their own small business. These will consist of:

- *personal resources* – the qualities and traits the individual can bring to the business
- *financial resources* – how the business is to be financed. This will be discussed in detail in Chapter 4: Sources of Finance.
- *external support resources* – how professionals such as accountants and solicitors, the Government, and professional organisations provide advice to assist small business owners to succeed.

Personal qualities of successful small business owners

Even amongst those who are prepared to accept the risks, not all people are suited to being small business owners. Successful small business owners share certain personal attributes, including:

- *expertise* – a detailed knowledge of their product or service and the market into which it is being sold, as well as a range of other management issues including marketing, management, human resources, finance, the law and accounting
- *entrepreneurship* – the ability to recognise a business idea, accept the risk and transform it into an actual functioning and successful business
- *determination* – a willingness to persevere in the face of hardships and setbacks
- *confidence* – the self-belief to make decisions and then accept the consequences
- *cordiality and patience* – an ability to develop good relationships with customers and employees and resolve disputes in a pleasant manner
- *humility* – a willingness to recognise their own limitations and seek expert assistance in areas in which their knowledge is lacking.

This may seem like a daunting list, and not all business owners possess all these qualities when they start. However, a willingness and desire to develop these qualities will allow the owner, and therefore their business, the best chance of success.

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External support resources

As shown later, one of the main reasons for small business failure is a lack of managerial experience and an unwillingness to seek assistance. It is those owners who can identify their shortfalls or lack of expertise and seek professional assistance who will ensure their small business survives. There are many professionals who can provide assistance to small businesses, including:

Accountants

Accountants are no longer simply bookkeepers (recorders of financial information); they are experts in providing advice and direction on ownership structures, pricing policies, tax minimisation, superannuation obligations, tax obligations regarding PAYG and GST, and strategies for improving business performance.

Lawyers

A small business owner can contact a solicitor or the Law Institute to assist them in any form of legal matter. This could involve the establishment of an ownership structure such as a partnership or proprietary company, representation in civil cases, or assistance with the lodging of a registered trademark.

Bank managers

A bank manager can provide specific advice regarding business finance and suggest alternatives in terms of financing options.

Sponsored assistance programs

In addition to these traditional sources of assistance, there are many private and government sponsored programs to assist small businesses to survive and thrive, including:

- *TAFE courses* – courses which address specific aspects of running a small business, from food handling and Occupational Health and Safety (OHS), to cash management and budgeting
- *Industry associations* – groups whose members operate in a particular industry, and so are well placed to provide advice and assistance specific to that industry; for example, Retail Traders Association.
- *AusIndustry* – an Australian Government agency delivering services and information that supports small business, research and innovation: www.ausindustry.gov.au. This agency provides access to the Small Business Entrepreneurship Program (SBEP) – a general skills development and mentoring program to help small business owners maximise business performance.
- *Business Victoria* – a state government initiative that provides a comprehensive online resource that is designed to help prospective owners to start, operate and develop their business: www.business.vic.gov.au
- *Small Business Counselling Service (SBCS)* – an independent, non-profit organisation providing experienced volunteer business counsellors, mentors and coaches to Victorian businesses: www.sbcs.org.au
- *The Australian Business Funding Centre* – provides information and support on how to secure grants, loans or financial aid to finance your small business idea: www.australiangovernmentgrants.org
- *Greater Victoria Economic Development Commission (GVEDC)* also known as Business Victoria – an independent, non-profit organisation that focuses on supporting the small business community: www.bizvic.com

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REVIEW QUESTIONS 3.4

1. **Explain** the personal qualities shared by successful small business owners.
2. **List** five areas in which a small business owner must have detailed knowledge.
3. **Explain** the importance of seeking additional advice to ensure the successful running of a small business.
4. **List** and **describe** four sources that small business owners may turn to for advice.

3.5 PLANNING

One of the most important steps before venturing into a business is to formulate a business plan. The more information that is gathered before the business commences operations, the greater its chances of success. (In particular, a business plan may make it easier to convince a financial institution to provide finance.)

A comprehensive business plan should include:

- *a description of the business and the most appropriate business structure* (this will be covered in detail later in this chapter)
- *a description of the product or service*; that is, exactly what the business will be selling or providing as a service to its customers
- *a market analysis that would include marketing strategies*. This would also assist in finding a target market and help to determine the best business location.
- *an analysis of the personal strengths and weaknesses of the owner* that would allow for the identification of areas where assistance or expert help will be required
- *a detailed list of establishment costs and the expected sources of finance* (this will be covered in Chapter 4)
- *projected sales figures and estimated running costs*. These costs should be further broken down into fixed and variable costs. This would allow for the forecasting of the firm's cash and profit/loss to determine when the business can support itself from its own operations. (This will be covered in Chapter 5.)

REVIEW QUESTIONS 3.5

List the issues that must be addressed in a comprehensive business plan.

3.6 NATURE OF BUSINESS OPERATIONS

The market and type of products or services offered by a business determines the nature of its operations.

Retail/trading

This type of business purchases finished goods for the sole purpose of resale. Stock is purchased from wholesalers/manufacturers at a **cost price**, and then sold to consumers through a retail outlet at a marked-up selling price. Trading businesses sell just about everything including clothing, hardware, CDs and hi-fi equipment, groceries, and books, and may be well-known like certain supermarket chains and clothing stores, or local businesses in shopping centres.

Cost price
the original purchase price of stock

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Service

This type of business performs a service for the customer so in fact what is being sold is the time, labour and expertise of the business. There is no physical exchange of goods. The service industry is the fastest growing sector and can include services such as cleaning, gardening and other home maintenance, and services supplied by plumbers, electricians, carpenters and mechanics.

Manufacturing

This type of business actually produces the goods it sells, using a production process (which could be on an assembly line) to transform raw materials into a finished product. This would include the makers of goods such as cars, biscuits, clothing and toys. Many of these manufacturers sell predominantly to trading businesses, but an increasing number of factory outlets sell direct to the public.

Mixed businesses

In certain cases, a business will combine one or more types of operation. For example, hairdressers not only perform a service (cutting your hair) but also sell a variety of hair-care products, and car dealerships not only sell cars but also provide service centres for tune-ups.

There are also other ways of classifying operations, including mining, agriculture and hospitality, but for our purposes the ability to distinguish between trading, service and manufacturing firms, or those which combine more than one of these operations, is sufficient.

REVIEW QUESTIONS 3.6

1 **Explain** how a trading firm earns profit. **State** two examples of trading firms in your area.
2 **Explain** how a service firm earns profit.
3 **Suggest** two reasons why manufacturing firms sell predominantly to trading firms rather than to the general public.
4 **Suggest** one reason why manufacturing firms may open a factory outlet to sell direct to the public.

3.7 OWNERSHIP STRUCTURES

Once a potential small business owner has determined the nature of their business venture and is satisfied that they have the personal qualities, there is still more to consider. One of the most important decisions facing an individual who wishes to commence a small business is which ownership structure to adopt. This choice can have an impact on:

- the owner's personal accountability for the debts of the business
- the owner's tax liability
- the firm's ability to raise capital
- the costs of establishing the business and compliance with government regulations
- the ability to shut down the business
- control over decision-making in the business.

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Sole proprietorship

A **sole proprietorship** is owned by a single individual, operating the business in their own right under their own name (Peter Romer) or a registered business name (Romer's Roof Repairs). It is the most straightforward and inexpensive way of structuring a business. A sole trader is not a separate legal entity, so the owner would be taxed as an individual and would have to declare all income earned from the business in his or her personal tax return and face personal income tax rates. Examples of a sole trader business could be a milk bar, fish and chip shop or a plumber.

Sole proprietorship a business owned by a single individual, operating their business in their own right under their own name or a registered business name

Advantages

- It is easy and cheap to set up. At the time of writing, to register a business name in Victoria for three years costs only $83.70.
- The owner has full control over decision-making within the business.
- The owner receives all profits and has full access to the capital of the business.
- It is simple to sell or wind up. There is no charge to deregister a business name.

Disadvantages

- The owner has **unlimited liability** and is thus personally responsible for all debts and liabilities incurred by the business. This can also extend to personal assets jointly owned with another person: for example, the family home.
- The business has a limited life; the continuity of the business is in danger if the owner should die.
- There is limited access to capital, as all start-up capital must come from one person. This may limit the finance available to the business as it has to rely on the owner's financial resources and their credit rating if they wish to borrow funds.
- Since there is essentially only one person running the business, these skills may be limited and may not cover every area that is required to run a successful business.
- The owner may have to endure personal hardship as they have to work excessively long hours to ensure the continued operation and success of the business. Since they are operating on an individual basis, finding time for a holiday or taking time off may be difficult and detrimental to the business.

Unlimited liability the legal status of sole proprietorships and partnerships is that they are not recognised as separate legal entities, so the owner(s) is personally liable for the debts of the business

Partnership

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Partnership
a business owned by two or more persons in business together with a view to making a profit

A **partnership** is two or more persons in business together operating under their own names (Sue Dorman and Barry Pratt) or a registered business name (Dorman and Pratt Consultancy Services) with a view to making a profit. Partnerships are generally made up of 2 to 20 legal persons but can extend beyond this number under special circumstances. (For example, accountancy firms have many partners, at least partly to spread the liability.) A partnership is not a separate legal entity and the partners would be taxed as individuals on the profit from the business that they received in their personal tax return and face personal income tax rates. Examples of partnerships could include doctors, lawyers and accountants. Although not legally necessary, it is strongly recommended that a partnership be set out in writing as a legal document by a solicitor in the form of a partnership agreement. The agreement should cover all aspects of the operation of the partnership and include things such as the role of each partner, the proportion of ownership and the resolution of disputes.

Advantages

- It is relatively cheap to set up. To register a business name in Victoria for three years costs only $83.70 (at the time of writing) and a partnership agreement would attach a solicitor's fee.
- It is relatively simple to wind up and reclaim an individual's investment in the business.
- There is greater access to capital and skills. With more partners there is a greater source of financial resources to fund the business's start up costs and future expansion. Also there is greater access to expertise and knowledge to ensure the smooth running of the business.
- Tax advantages can exist where the partners are married, as the profits can be split between them, effectively giving them two tax-free thresholds. This reduces their tax debt, but not their household income.

Disadvantages

- Control over decision-making is shared among the partners. This may lead to disagreements and personality clashes.
- The owners have unlimited liability and are thus personally responsible for all debts and liabilities incurred by the business. This liability extends to debts incurred by the other partners in the business's name, meaning each partner is personally responsible for all debts and liabilities incurred by the other partners.
- The partnership has a limited life – if one of the partners should die, be declared insane or decide to leave the business, the partnership is dissolved.
- Profits are shared among the partners. This is normally set out in the partnership agreement but if not could be another reason for a dispute between the partners.

Proprietary company (Pty Ltd)

Proprietary company
a business that exists as a separate legal entity that is entitled to do business in its own right

A **proprietary company** is a registered legal entity with the right to do business in its own right. It comes into existence by incorporation under the *Corporations Act 2001*. A solicitor normally prepares the necessary documents required for incorporation. It can be owned and operated by one person being both shareholder and director; however, it can have no more than 50 non-employee shareholders. It has its own separate legal entity and so can sue and be sued, and is subject to taxation in its own right. Examples of proprietary companies are Musical Inspiration Pty Ltd and Don Smallgoods Co. Pty Ltd.

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Advantages

- **Limited liability** means the owners (shareholders) have no further responsibility for any liabilities incurred by the business unless they signed personal guarantees. Also directors have no personal responsibility for any debts unless they caused the debts recklessly, negligently or fraudulently.
- There is a greater ability to attract capital to the business as there is limited liability.
- The life of the business is ongoing due to its being a separate legal entity. It does not cease to exist even if a director/shareholder decides to leave or dies. It exists until it is wound up.
- The firm can conduct business Australia-wide using the company name as the name is registered on a national basis.

Limited liability the legal status of a company, which exists as a separate legal entity, so the owners have no further responsibility for liabilities incurred by the business

Disadvantages

- Establishment costs are high. To register a proprietary company can cost anywhere from $462 to about $1 000.
- There may be difficulty attracting additional capital because a proprietary company cannot publicly advertise for funds. This also can make it difficult for shareholders to sell their shares and recover their investment in the company, as there may be limitations on who can purchase the shares.
- There are higher compliance costs as a result of the need to comply with tax laws. This can include fees paid to external tax advisers, time spent by personnel within the business dealing with tax matters and other related costs.
- Because it is regulated by the Australian Securities and Investments Commission (ASIC) as well as the Australian Taxation Office (ATO) and a separate tax return is required by both these bodies each year, the degree of regulation is much higher than that imposed on sole proprietorships or partnerships.

Proprietary companies (Pty Ltd) are also referred to as 'private companies' (family companies). Because their ownership tends to be of a smaller nature, their ownership is more difficult to transfer and they do not have to make their financial reports available to the public. A Public Company (Ltd) is a large business structure that is also incorporated so it also has its own legal existence, but derives the 'Public' name because it can publicly raise funds by advertising and selling shares through the Australian Securities Exchange (ASX). It is also open to the scrutiny of the public by being listed on the stock exchange and has to make its financial reports public. It is for this reason the regulations and compliance surrounding a public company are more stringent than those under which a proprietary company operates.

REVIEW QUESTIONS 3.7

1. **Define** the following types of ownership structure:
   - sole proprietorship
   - partnership
   - proprietary company.
2. **List** the advantages and disadvantages of each type of ownership structure.
3. **Distinguish** between a private company and a public company.
4. **Distinguish** between limited and unlimited liability.
5. Referring to one Accounting Principle, **explain** the effect of unlimited liability on the recording of transactions for a sole proprietorship or partnership.

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3.8 STARTING VERSUS BUYING

Once a prospective owner decides to go into business for themselves, three options exist:

- starting a new business
- buying an existing business
- buying a franchise.

STUDY TIP

Some of these factors could be an advantage or disadvantage, depending on your point of view.

Starting a new business

As the title suggests, this involves starting a brand new business from scratch, and if there is no business for sale, may very well be the only option for a prospective business owner. Its great advantage is also its main disadvantage – there will be nothing in place, meaning the owner has to decide on a location and ownership structure, purchase assets, hire staff and develop business practices before trading can begin.

Advantages

- Almost total freedom in determining how the business operates.
- Freedom to set customer expectations.
- No need to pay for **goodwill**.
- Rewarding for the owner knowing they have created the entire business.

Goodwill
an intangible asset representing the value of the firm's reputation, clientele, viability and future growth prospects

Disadvantages

- No track record, so greater risk of failure.
- No customer base – could mean low cash inflows in first months of operation.
- Large start up capital required that will essentially have to be provided by the owner.
- More difficult to obtain finance.

Buying an existing business

In order to overcome the uncertainties of starting a new business, another option is to buy a business that already exists. A potential buyer would need to conduct careful research into the history of the business, its future potential and the reasons the owners are selling.

Advantages

- A proven track record can increase the chances of success.
- All assets, practices, suppliers and customers are already established.
- An immediate income stream is available.
- Previous owner(s) and current employees can assist in the change of ownership as they can provide helpful advice.

Disadvantages

- Previous success may have been dependent on the skills of the previous owner(s) and their relationship with customers.
- Difficult to change existing procedures, staff and customer expectations.
- Must pay for goodwill (which is difficult to value accurately).
- Existing assets may require major renovation, repair or even replacement.

Buying a franchise

Buying a **franchise** is an increasingly popular way of entering the world of small business, as it offers the support and advice of a large financial corporation that has a vested interest in ensuring the success of the franchisee. Under a franchise arrangement, the small business owner (the **franchisee**) purchases the right to use the name and business systems of a larger business (the **franchisor**) in return for a certain fee. Some popular and successful franchises operate in the fast food and home gardening industries.

Franchise
an arrangement under which one party (the franchisor) grants to another party (the franchisee) certain rights, including the use of the franchise name and business practices

Franchisee
the entity that purchases the right to operate under the franchise agreement

Franchisor
the entity that holds (and sells to the franchisee) the rights to operate under the franchise agreement

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Like any small business venture the potential buyer must do their homework to ensure that the franchise operation is sound and that the company is reputable. The franchise agreement will set out the terms and conditions relating to franchise fees, operating arrangements, territory in which the franchisee can operate, and the life of the agreement.

Advantages

- Recognised brand name/national advertising.
- Established (and proven) reputation and business practices.
- All equipment necessary to commence operations.
- Bulk buying power through the franchise group.

Disadvantages

- High purchase price, ranging from $15 000 for a lawn-mowing business to upwards of a million dollars for a fast-food restaurant.
- Ongoing franchise fees (frequently based on sales) to cover expenses such as advertising and administration.
- Rigid guidelines for operations.
- Competition from fellow franchisees.
- Dependence on the operations of the franchisor.

REVIEW QUESTIONS 3.8

1. **List** the advantages and disadvantages of starting a business from scratch.
2. **Define** the term 'goodwill'.
3. **Explain** how goodwill can bring both benefits and costs for the purchaser of an existing small business.
4. **List** the advantages and disadvantages of buying an established business.
5. **Define** the term 'franchise'.
6. **Suggest** two reasons for the growth in the popularity of franchising.
7. **List** the advantages and disadvantages of buying a franchise.

3.9 REASONS FOR SUCCESS AND FAILURE

Given that so many small businesses fail, a prospective small business owner must be aware of the factors on which small business success are likely to depend. Successful small businesses have:

- high demand for their product or service
- a location that is visible and easily accessible for customers
- a thorough business plan that details all aspects of the firm's operations
- sufficient starting capital that can support the business and the owner until it is functioning in a profitable manner
- an owner that exhibits the following qualities:
  - a strong knowledge of the good or service that they are selling
  - business acumen – insight or good judgement when it comes to business dealings and decisions
  - humility – not being afraid to seek assistance for any areas that they feel they don't have the required level of expertise; for example, legal or financial matters
  - friendly and fair – when dealing with the public whether employees or customers
  - resilience – the ability to withstand failures, learn from mistakes and resolve issues and move on.

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Unfortunately, approximately 80% of all small businesses fail within their first five years of operation, due to factors such as:

- *competition from other small and large businesses* – some businesses will purposely cut prices to drive out new competitors because they can afford to endure small margins or losses for a period of time whereas new businesses cannot. It can also be difficult for new businesses to attract customers away from established businesses especially larger ones that could offer a wider range of goods or services.
- *a poor location* – could be represented by poor visibility or poor access in terms of parking. It could also be in the wrong demographic area for the customers you are trying to reach. For example, you would not establish a shop selling children's play equipment in a demographic area where the average age of the population is 60!
- *insufficient start up capital to support the business or the owner(s) until sales are established* – initial capital not only needs to cover setting up the business in terms of its premises, fixtures and fittings, signage and stock but it also needs to cover the operating and ongoing expenses such as electricity, telephone, wages and advertising. Starting small business owners may also have unrealistic expectations of their initial sales figures.
- *poor marketing, targeting either the wrong people, or no one at all* – in an ever competitive market, getting your business to be known by the right people is all important. The significance of modern technology highlights the need of a website and being linked to a good search engine, otherwise no one will know of your business's existence.
- *poor management skills and a lack of willingness to seek professional advice* – there are very few, if any, that are experts in all fields covered by business. However, there are those that think they can do it all themselves that soon discover, to their own detriment, that they cannot.
- *poor customer relations* – there is an old saying in business that the 'customer is always right'; however, there are small business owners who obviously disagree and can treat customers in ways that can be seen as aggressive, unhelpful or rude. Customers will not return to a business for poor treatment.

STUDY TIP

Use opposites here – the reasons for success are the opposite of the reasons for failure and vice versa.

REVIEW QUESTIONS 3.9

1. **List** the common characteristics of successful small businesses.
2. **List** the reasons why 80% of small businesses fail in the first five years of operation.

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WHERE HAVE WE BEEN?

- Small businesses are owned and managed by the same person, and employ fewer than 15 people.
- Small businesses represent roughly 96% of all private sector businesses, employ almost 5 million people and contribute strongly to Australia's level of economic activity and production, exports and tax revenue.
- Reasons for owning a business include the profit motive, a desire for greater independence, the identification of a market opportunity and employment.
- Investors must take into account the correlation between the level of risk and the rate of return, the term, and the liquidity of any alternative investment.
- There are three main asset groups that can be used as alternative investment options to starting a small business: cash, property and shares.
- Most successful business owners are experts in their field, entrepreneurial, determined, confident, cordial, patient and willing to recognise their own limitations and seek assistance.
- A detailed business plan is essential before operations commence.
- Business can be classified by the nature of their operations as trading, service or manufacturing businesses.
- The choice of ownership structure will have consequences for a whole host of issues, including the owner's personal accountability for the debts of the business.
- Sole proprietorships and partnerships have unlimited liability; companies have limited liability.
- A prospective business owner can start a new business, buy an existing business or buy a franchise.
- Successful small businesses have a high demand for their product or service, a good location, a thorough business plan, sufficient starting capital and a knowledgeable and resilient owner.
- Small businesses can gain assistance from a variety of sources.

EXERCISES

EXERCISE 3.1
SMALL BUSINESS

WB page 36

In 2012, Travis Sands left his job at a call centre to start his own landscape design business called Environ Landscape. Before commencing operations, Travis drafted a detailed business plan, and as a sole proprietor, Travis has been handling the business records and reports since the business started in 2012.

Required

a **State** two features that would distinguish Environ Landscapes from a large business.

b **Suggest** two reasons why Travis may have decided to become a small business owner.

c **State** two personal qualities Travis would need to be a successful small business owner.

d **List** four issues Travis would have addressed in his business plan.

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EXERCISE 3.2
NATURE OF OPERATIONS

WB page 37

For each of the following businesses, **identify** the nature of its operations as one of trading, service or manufacturing.

a Q-Mart Clothing Emporium
b Ken Farthington, accountant
c Mac Walter Textiles Factory
d First Rate Plumbing
e The Book Store
f Digby Recording Studios.

EXERCISE 3.3
PARTNERSHIPS

WB page 38

Maxine Smart is the owner and operator of Ninety Nights, a small business that makes and sells designer pyjamas. Maxine started the business in March 2015 after leaving her position as a fashion designer with a major international clothing retailer. Maxine and her husband, Nigel, each contributed $20 000 of their own funds to start the business. However, Nigel was concerned that if the firm was established as a partnership, it would mean that all their personal assets, including their house and belongings, would be listed in the firm's Balance Sheet. As a result, they decided that a sole proprietorship, in Maxine's name, was the most appropriate business structure.

Required

a **State** one reason why Maxine may be willing to accept less in profit than she earned as a salary in her previous job.
b **Identify** the nature of operations of Ninety Nights.
c Referring to one accounting principle, **explain** how Maxine and Nigel's personal assets will be treated in the firm's Balance Sheet.
d **Explain** one benefit Maxine and Nigel would derive by registering their business as a partnership rather than a sole proprietorship.
e **Explain** how Maxine and Nigel could ensure that in the event of bankruptcy, their personal assets will not be seized to pay business debts.

EXERCISE 3.4
PARTNERSHIPS

WB page 39

Marco Costa and Vince Carello are cousins who own and operate Ponte Vecchio Jewellers. Vince is a jeweller by trade, so Marco looks after most of the management issues. Because Marco and Vince are cousins, they have established their business as a partnership. Vince said, 'We don't need a formal partnership agreement – we are family.' Marco added, 'And when we die, our kids will take over.'

Required

a **State** two benefits that Marco and Vince derive from operating their business together as a partnership.
b **State** one benefit that Marco and Vince would derive from having a formal partnership agreement.
c **State** one reason why Marco's statement is incorrect.
d On 1 May 2016, Marco left the partnership to take up a new job. Vince decided to continue trading as a sole proprietor. **State** one reason why Vince's small business may still fail.

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EXERCISE 3.5
COMPANIES

page 40

Lucas George has decided to go into business creating and selling his own space-based computer games. His girlfriend Sky is very keen to enter into the business with him, and Lucas is unsure about what type of ownership structure to adopt.

Required

- a **Identify** the nature of operations for this new business.
- b **State** three personal qualities Lucas will require to run his business successfully.
- c **State** one advantage and one disadvantage of establishing the business as a private company rather than a partnership.
- d Assuming that the business is structured as a company, **explain** the effect on the business should the relationship between Lucas and Sky end.
- e **State** two arguments to support Lucas's decision to start his own business rather than buy an existing business.

EXERCISE 3.6
SMALL BUSINESS ISSUES

page 41

Piece of Cake sells cakes from a shop in Hawthorn. For the past three years it has been owned and operated as a sole proprietorship by Elena St Clair, who left her job as an analyst for a large computer company in search of greater independence. Elena has frequently called on her sister (who is an accountant) for assistance and recently her sister expressed a desire to join Elena as a joint owner of the business.

Required

- a **State** two reasons (other than a desire for independence) why people leave paid employment to own a small business.
- b **State** two costs to Elena of leaving paid employment to start her own business.
- c **Explain** the difference between a sole proprietorship and a proprietary company in terms of their legal status.
- d **State** one disadvantage of establishing the business as a proprietary company.
- e **State** one benefit Elena would derive from entering into a partnership with her sister.
- f **State** two benefits Elena derived by buying an existing business rather than starting her own.
- g **Explain** one reason (other than insufficient professional advice) why this business may still fail.
- h **State** two sources from which Elena can seek alternative professional advice.

EXERCISE 3.7
SMALL BUSINESS ISSUES

page 42

Until 2012, Jane Bronte was employed as a journalist with a local broadsheet newspaper. Although she was quite happy with her job, on 1 December 2012 she left this position to start her own bookshop called Bronte's Books. At the time, a friend had suggested that it would be wise to join a franchise group.

Required

- a **Explain** one risk Jane was taking by becoming a small business owner.
- b **Explain** why the establishment costs for a new business would be less than the purchase price of an existing business.
- c **Explain** one benefit of being a member of a franchise group.

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d **State** one financial and one non-financial cost of joining a franchise group.

During December 2015, Jane decided that in addition to selling a range of classic books, the shop would also provide a small library service that would allow customers to borrow rare and antique books. The library was due to commence operations in January 2016. On 1 January 2016, the business purchased $500 worth of books for the library service.

Required

e **Explain** the nature of the operations of Bronte's Books in January 2016.

f **Explain** why the books purchased on 1 January 2016 should be reported as an asset of Bronte's Books.

g **Explain** one circumstance in which the books should be reported as a current asset as at 31 January 2016.

h **Explain** one circumstance in which the books should be reported as a non-current asset as at 31 January 2016.

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Where are we headed?

After completing this chapter, you should be able to:

- **distinguish** between internal and external sources of finance
- **describe** the various forms of finance available to small businesses
- **list** the advantages and disadvantages of each type of finance
- **explain** the guidelines for seeking external finance
- **list** the information necessary to apply for a loan
- **calculate** interest for simple and reducing balance loans
- **calculate** the Debt Ratio and Return on Owner's Investment
- **explain** the effect on the Debt Ratio of internal and external finance
- **explain** the relationship between the Debt Ratio, risk and return.

CHAPTER 4

SOURCES OF FINANCE

KEY TERMS

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

- internal finance
- capital contribution
- retained earnings
- external finance
- trade credit
- creditor
- bank overdraft
- term loan
- security
- mortgage
- lease
- lessee
- lessor
- interest-only loan
- principal and interest loan
- Debt Ratio
- simple interest
- reducing balance interest
- Return on Owner's Investment (ROI).

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4.1 SOURCES OF FINANCE

Unfortunately, many fantastic small business ideas never develop into actual businesses, simply because the prospective owner cannot raise sufficient finance to get the idea off the ground. As we saw in Chapter 3, buying an established business with its attendant goodwill can be expensive, and requires a large capital outlay from the owner. Starting from scratch means finding enough funds to purchase all the assets the business will need to operate, as well as enough to cover the initial period when the business is unlikely to be earning much in the way of revenue. Even businesses that are already operating will need access to finance to meet their costs, or fund an expansion. The question of how to raise finance then becomes an important consideration for a small business owner.

In Chapter 2, the accounting equation identified that the assets of a business are funded from one of two sources:

1 Internal sources of finance; i.e. owner's equity

or

2 External sources of finance; i.e. liabilities

Internal sources of finance

Internal finance
funds generated by and within the firm

Internal finance refers to funds that are generated from within the firm itself; that is, from owner's equity. This could consist of the owner contributing more capital or using retained profits to finance business operations.

Capital contribution

Capital contribution
an internal source of finance consisting of cash (or other assets) contributed to the business from the personal assets of the owner

In finance terms, a **capital contribution** refers to funds contributed by the owner to commence, support or expand business operations, which creates a claim by the owner on the assets of the business. This would be the most important source of finance when a business is just starting, as banks and other lenders are generally reluctant to extend finance to unproven businesses. The size of the initial investment by the owner(s) is integral to the firm's survival as not only does it have to cover the initial set up costs, but also has to cover the operating costs until the business is self sufficient and can generate its own cash flow.

Advantages:

- no set repayment date
- no interest charge.

Disadvantages:

- limited to the resources of the owner.

Retained earnings

Retained earnings
an internal source of finance consisting of funds generated from business profits that are not taken as drawings by the owner

Retained earnings refer to business profits that are kept to fund further expansion, so this form of finance is generally only available to businesses that are not only well established, but also profitable. If the owner has chosen to limit drawings, this will mean that most profits are retained, providing a source of finance for other activities.

Advantages:

- no set repayment date
- no interest charge.

Disadvantages:

- limited to previous profits (which may not exist!)

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External sources of finance

External finance refers to funds that are sourced from outside the business; that is, from liabilities. This includes various forms of borrowing such as using a bank overdraft, trade credit, a lease or a loan.

External finance
funds generated from sources outside the business

Trade credit
a form of external finance offered by some suppliers, which allows customers to purchase goods/services and pay at a later date

Creditor
a supplier who is owed a debt by the business for goods or services purchased from them on credit

Trade credit

Trade credit refers to the facility offered by suppliers that allows its customers to purchase goods or services immediately, and then pay at a later date. As a result of a credit purchase, the supplier becomes a **creditor** of the firm making the purchase, because the purchasing business has not yet paid for the goods or services. Credit terms can be 30, 60 or even 90 days, with the due date for payment specified on the purchase invoice which accompanies the goods/services.

Advantages:

- allows immediate access to goods/services
- allows businesses time to generate sales before payment is required
- no interest charge if credit terms are met
- discounts are available from some suppliers for early payment.

Disadvantages:

- trade credit can only be used for purchases with that supplier
- interest charges and late fees may be incurred for late payment (if stated in credit contract).

Bank overdraft
an external source of finance provided by a bank that allows the account holder to withdraw more than their current account balance

Bank overdraft

A **bank overdraft** is a facility provided by a bank (or other financial institution) that allows a business to withdraw funds greater than the current balance of its account. The amount overdrawn is then owed to the bank. This type of finance (normally attached to a cheque account) can provide a safety net for firms that have irregular cash flows, with most banks happy for the account to remain overdrawn as long as it does not exceed the overdraft limit. Although an overdraft represents a readily accessible form of finance, it usually incurs a high interest rate (compared to other loans), which is calculated on a

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daily basis.

Advantages:

- readily accessible
- flexible – can be used for a variety of purposes.

Disadvantages:

- high interest charge
- can be recalled at short notice.

Term loan
a form of external finance provided by banks and other lenders for a specific purpose and repaid over time

Security
also known as collateral; an identified asset that can be claimed by a lender from a borrower who defaults on a loan

Mortgage
a loan that is secured against property

Term loan

Term loans are funds provided by a bank or other lender for a specific purpose, and repaid over time. Increasing the length of the loan may reduce the amount of each instalment, but will usually increase the total amount repaid over the term of the loan. In some cases, the lender will require that the loan is secured against a particular asset (this **security** is usually the asset for which the loan is obtained) so that if the borrower defaults on the loan, the lender is entitled to claim that asset to settle the debt. A **mortgage** is a specific type of term loan that is secured against property. Unsecured loans usually attract a higher interest rate to compensate for the higher risk accepted by the lender.

Advantages:

- makes possible the purchase of expensive assets
- flexible – can be used for a variety of purposes
- secured loans attract a lower interest rate.

Disadvantages:

- interest charges
- requires commitment by business to make repayments for the term of the loan
- principal and interest repayments can put pressure on cash flows.

Lease
a written agreement which grants to the lessee the right to use a particular asset for a specified period of time in return for periodic payments to the lessor

Lessee
the entity that is leasing the non-current asset

Lessor
the entity that provides the non-current asset for lease

Leasing

A **lease** is a form of rental agreement that allows a business to use and control an asset for a length of time in return for specific periodic payments, and is very useful for assets that need to be replaced frequently. The business applying for the lease is known as the **lessee** and the business granting the lease is known as the **lessor**. The lessee has full control of the asset for the period of the lease agreement; however, it will never own the asset.

Advantages:

- reduces initial outlay to acquire assets
- makes it possible to obtain technologically advanced assets
- allows assets to be updated when they become outdated or technologically obsolete; for example, computers
- reduces maintenance and repair costs.

Disadvantages:

- no ownership of asset
- requires commitment by business for the term of the lease.

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REVIEW QUESTIONS 4.1

1 **Distinguish** between internal and external sources of finance.
2 **List** two forms of internal finance.
3 **State** the main advantages and disadvantages of using internal finance.
4 **Define** the following types of external finance:
   - trade credit
   - bank overdraft
   - term loan
   - lease.
5 **Construct** a chart to show the main advantages and disadvantages of each form of external finance.
6 **Distinguish** between a secured loan and an unsecured loan.

4.2 GUIDELINES FOR SEEKING EXTERNAL FINANCE

With a variety of options to choose from, businesses must be careful to select the form of finance appropriate to their specific needs.

The term of the finance should match the life of the asset

In general, short-term assets should be purchased using short-term finance, and long-term assets should be purchased using long-term finance. For example, stock can be purchased with trade credit or by using a bank overdraft as it will be sold quickly, and the funds it generates can be used to repay the debt. However, long-term assets such as premises should be financed using a mortgage so that the business has enough time to generate revenue to repay the loan.

The cost of interest must be considered

The interest rate is equivalent to the cost of using borrowed funds, and the borrower must be able to repay both the principal (the amount borrowed) and the interest charges. Unsecured loans will usually incur a higher interest rate than secured loans, but the method which is used to calculate the interest charge is also important. (This will be covered later in this chapter.)

The conditions of the loan should be tailored to suit the borrower

Generally, the longer the term, the lower the instalments but the higher the total interest charges. **Interest-only loans** only require the borrower to make regular interest payments, with the entire principal repaid at the end of the term of the loan. This will reduce the amount of each regular instalment, and may be suitable for the purchase of an asset, which will generate little cash over its life, but much on its sale. **Principal and interest loans** require larger repayments over the borrowing period, but reduce the need for a large cash outlay at the end.

Consider the impact on the Debt Ratio and the firm's ability to borrow further

The **Debt Ratio** measures the extent to which a business is already reliant on borrowed funds, so a lender will be interested in the firm's Debt Ratio to provide an indication of the firm's ability to repay the debt. Businesses which already have a high Debt Ratio, and have a large proportion of their assets already funded by debt, could be forced to accept a higher rate of interest (as the risk to the lender is higher), or could be denied further finance altogether.

Interest-only loan
a loan which requires the borrower to make regular interest payments before repaying the entire principal in one lump sum on the last day of the loan period

Principal and interest loan
a loan which requires the borrower to make regular repayments of both the principal and interest over the life of the loan

Debt Ratio
measures the proportion of the firm's assets that are funded by external sources

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REVIEW QUESTIONS 4.2

1 **Explain** why the finance term should match the life of the asset.
2 **Explain** the difference between an interest-only loan and a principal and interest loan.
3 **Explain** how a firm's Debt Ratio can affect a firm's ability to access external finance.

4.3 APPLYING FOR A LOAN

When applying for a business loan, the lender will be interested in information such as:

- *amount and purpose of the loan*
- *business details:*
  - ownership structure (e.g. sole trader, partnership, company)
  - nature of operations (e.g. trading, service, manufacturing)
  - future direction and goals.
- *financial statements:*
  - Statement of Receipts and Payments to determine if the business generates sufficient cash flows to be able to meet the debt servicing requirements of the loan
  - Cash Budget to show the likely impact of the loan on the firm's future cash flows
  - Income Statement to determine whether the firm is likely to continue trading into the future
  - Balance Sheet to determine the firm's current Debt Ratio, and the impact that the loan will have on its stability.
- *credit rating:*
  - the lender will be keen to see that all previous borrowings by the business have been repaid on time and that there have not been any defaults or a history of bankruptcy.
  - if this is the firm's first loan, the bank may focus on the owner's personal credit rating as well.
- *deposit:*
  - the amount that will be contributed by the business (or more specifically its owner) towards the purchase.
- *security:*
  - the collateral (assets) the business will provide as security in case the loan repayments cannot be met.
  - small business owners frequently have to put up personal assets as collateral to ensure that their business can get the loan.

REVIEW QUESTIONS 4.3

1 **List** the various types of information which must be provided when applying for a loan.
2 **Explain** the role of the following financial statements in the process of applying for a loan:
   - Statement of Receipts and Payments
   - Income Statement
   - Balance Sheet.

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4.4 CALCULATING INTEREST

As was noted earlier, the interest charge represents the cost of borrowing, and should be a key consideration in selecting finance. But it is not only the *rate* of interest which must be considered, the *method* for calculating interest is also important.

Simple interest (flat rate)

Simple interest calculates the interest charge on the original amount borrowed, regardless of how much of the principal has been repaid.

Simple interest
interest calculated as a percentage of the original amount borrowed

EXAMPLE

Hawkesburn Fencing has agreed to borrow $12 000 from Yarra Bank, with interest charged at a flat rate of 6% p.a. The loan will be repaid over five years.

Figure 4.1 ***Interest charge***

Total interest charge = P × I × T

where:

P	=	Principal	(the original amount borrowed)
I	=	Interest rate	(%)
T	=	Time	(measured in years)

Therefore the total interest charged over the 5 years would be:

Total interest charge	=	P × I × T
	=	$12 000 × 6% × 5 years
	=	**$3 600**

STUDY TIP

An interest rate of 8% is really 8/100, which equals .08: make sure that you get the decimal point in the right place!

The total interest charge on this loan is thus $3 600. Therefore the total amount that needs to be repaid by the business to the lender is:

Figure 4.2 ***Total repayable***

Total repayable	=	Principal + Interest
	=	$12 000 + $3 600
	=	**$15 600**

That is, the borrower must repay a total of $15 600, which includes the principal of $12 000 and interest of $3 600.

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Assuming equal repayments are made every month:

Figure 4.3 ***Instalments***

Instalments	=	$\frac{\text{Total repayable}}{\text{Number of instalments}}$
	=	$\frac{\$15\,600}{12 \text{ per year x } 5 \text{ years}}$
	=	$\frac{\$15\,600}{60}$
	=	**$260 per month**

Each **$260** monthly instalment will include some of the principal, and some interest.

Increasing the term

Should the loan be taken out over a longer period, the interest charge may well increase, but the amount of each instalment will probably decrease. Assuming the loan was taken out over 10 years rather than 5 years:

Total interest charge	=	$12 000 × 6% × 10 years
	=	**$7 200**
Total repayable	=	$12 000 + $7 200
	=	**$19 200**
Instalments	=	$\frac{\$19\,200}{12 \text{ per year} \times 10 \text{ years}}$
	=	$\frac{\$19\,200}{120}$
	=	**$160 per month**

Rather than repaying **$260** per month for 5 years, this option allows the business to repay **$160** per month, for 10 years. The longer the term, the lower the repayments will be; however, the overall interest paid is greater. The business must assess how much it can repay per month, and then set the term of the loan accordingly.

STUDY TIP

A flat rate loan does not mean there will be no instalments: it means the lender ignores those repayments when calculating interest

Reducing balance

Whereas a simple interest loan calculates interest as a percentage of the *original amount borrowed*, regardless of any repayments that have been made, a **reducing balance loan** calculates interest on the *actual balance* owing at that particular date.

Reducing balance interest interest calculated as a percentage of the current balance owing on the loan

EXAMPLE

Hawkesburn Fencing has agreed to borrow $12 000 from Yarra Bank, with interest charged at 6% p.a. *reducing yearly*. The loan will be repaid over 5 years.

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In this example, 'reducing yearly' means that interest will be calculated on the principal remaining at the *end of each year*. Therefore 5 interest calculations (5 years x 1 interest calculation per year) will be required, and it will be necessary to calculate the balance owing at the end of every year. Assuming the borrower makes equal repayments off the principal (as well as paying off the interest for that year):

Figure 4.4 ***Equal instalments off the principal***

$$\textbf{Principal instalments} = \frac{\text{Principal}}{\text{Total number of instalments}} = \frac{\$12\,000}{12 \text{ per year} \times 5 \text{ years}} = \frac{\$12\,000}{60} = \textbf{\$200 per month}$$

STUDY TIP

As long as the borrower is making repayments off the principal, the amount owing will be lower than the amount borrowed, meaning that the interest charge on a reducing balance loan should be lower than that charged on a simple interest loan.

Note that this figure is lower than the instalment calculated in Figure 4.3, because it doesn't include any interest. In 12 months, the borrower will make 12 such repayments meaning that the balance owing, and the amount on which the interest is calculated, will reduce by $2 400 each time interest is calculated.

Figure 4.5 ***Reducing balance interest***

Year 1	$12 000 × 6% × 1 year	=	$720
Year 2	$ 9 600 × 6% × 1 year	=	$576
Year 3	$ 7 200 × 6% × 1 year	=	$432
Year 4	$ 4 800 × 6% × 1 year	=	$288
Year 5	$ 2 400 × 6% × 1 year	=	$144
	Total Interest Charge	**=**	**$2 160**

Note that it is the frequency at which the loan is *reducing* that determines the number of interest calculations and the amount of interest on the loan, not the number of repayments. The number of repayments shows how much and how often loan payments are made.

Number of times reducing	Interest calculations per year	Each calculation must be multiplied by
Yearly	1	1
Half yearly	2	$\frac{1}{2}$
Every four months	3	$\frac{1}{3}$
Quarterly	4	$\frac{1}{4}$
Monthly	12	$\frac{1}{12}$

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Obviously, the more often interest is calculated on a lower principal the less the overall interest charge will be. The total amount repayable and the amount of each instalment would thus be:

Total repayable = $12 000 + $2 160
= **$14 160**

Instalments = $\dfrac{\$14\,160}{12 \text{ per year} \times 5 \text{ years}}$
= $\dfrac{14\,160}{60}$
= **$236 per month**

Comparing the flat rate and reducing balance loans, both at 6% p.a., reveals the following.

Figure 4.6 ***Comparison of flat and reducing balance interest***

Reducing balance		Flat rate	
Year	**Interest**	**Year**	**Interest**
1	720	1	720
2	576	2	720
3	432	3	720
4	288	4	720
5	144	5	720
Total	**$2 160**	**Total**	**$3 600**

The reducing balance loan is much cheaper as it calculates interest on the amount owing at the time, whereas the simple interest loan always calculates interest on the original (principal) amount borrowed.

REVIEW QUESTIONS 4.4

1 **Explain** the difference between a simple interest loan and a reducing balance loan.
2 **State** one cost and one benefit of taking out a loan over a longer period.
3 **Explain** how a reducing balance loan can be modified to reduce the amount of interest paid.
4 **Explain** why the interest charge on a simple interest loan is likely to be higher than the interest charge on a reducing balance loan.

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4.5 DEBT RATIO AND RISK

As we noted in Chapter 2 and earlier in this chapter, the Debt Ratio assesses the extent to which a business relies on external finance to funds its assets, by measuring the proportion of its assets that are financed by liabilities.

Figure 4.7 *Debt Ratio formula*

$$\textbf{Debt Ratio} = \frac{\textbf{Total Liabilities}}{\textbf{Total Assets}} \times 100$$

EXAMPLE

The owner of Glendale Plumbing has provided the following information:

Total Liabilities	$120 000
Total Assets	$160 000

The Debt Ratio would be calculated as is shown in Figure 4.8.

Figure 4.8 *Calculating the Debt Ratio*

$$\textbf{Debt Ratio} = \frac{120\,000}{160\,000} \times 100$$
$$= 75\%$$

This means 75% of the finance used to purchase the assets of Glendale Plumbing is external – it has come from outsiders. Using external finance to purchase assets will increase the Debt Ratio; using internal finance will have the opposite effect.

Dangers of a high Debt Ratio

A high Debt Ratio would indicate a high reliance on liabilities, and consequently a high risk of financial collapse, as the business must be able to meet not only the loan repayments, but also the interest charges. If expected cash inflows do not eventuate, the business must still meet its repayments: if it cannot, it could result in the financial collapse of the business.

Further, a high Debt Ratio may actually prevent a business from being able to access more borrowed funds as lenders perceive that the risk is too high.

Benefits of a high Debt Ratio

However, borrowing does give the business access to funds to purchase assets that it may not have been able to afford trying to raise funds internally. These assets should allow the business to expand its revenue earning capability and increase its profits. Further, a high Debt Ratio will mean a higher return for the owner, as he or she has less capital invested, but still earns all the profits. That is, high risk will mean high return for the owner.

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REVIEW QUESTIONS 4.5

1. **Define** the term 'Debt Ratio '.
2. **Show** the formula to calculate the Debt Ratio.
3. **Explain** how the choice of internal or external finance can affect the Debt Ratio.
4. **Explain** the dangers of a high Debt Ratio.
5. **State** two benefits of a high Debt Ratio.

4.6 DEBT RATIO AND RETURN ON OWNER'S INVESTMENT

Return on Owner's Investment (ROI)
A profitability indicator that measures how effectively a business has used the owner's capital to earn profit

When assessing the level of debt, the owner should also consider its relationship to the **Return on Owner's Investment (ROI)**. Return on Owner's Investment assesses how profitable the owner's investment has been by measuring how many cents profit the business earns for every dollar invested by the owner.

Figure 4.9 ***Return on Owner's Investment formula***

$$\textbf{Return on Owner's Investment (ROI)} = \frac{\textbf{Net Profit}}{\textbf{Average Owner's Equity}} \times 100$$

EXAMPLE

The owner of Glendale Plumbing has provided the following information:

Net Profit	$10 000
Owner's Equity	$40 000

The Return on Owner's Investment would be calculated as is shown in Figure 4.10.

Figure 4.10 ***Calculating Return on Owner's Investment***

$$\textbf{ROI} = \frac{10\,000}{40\,000} \times 100$$

$$= \textbf{25\%}$$

A Return on Owner's Investment of 25% means that for every dollar of capital invested, the owner has earned 25c profit. The level of the Debt Ratio will have a direct and significant effect on ROI. A high Debt Ratio means high risk, but it should also mean a high ROI because the business is earning profit, but using outside funds to do so. That is, the owner still receives all the profit earned by the business, but has had to contribute very little in the way of capital to earn that profit.

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EXAMPLE

Blue Chip and Speculative both operate in the same industry. They have provided the following information for 2016:

	Blue Chip	Speculative
Net Profit	$25 000	$25 000
Total Liabilities	20 000	80 000
Owner's Equity	80 000	20 000
Total Assets	100 000	100 000
Debt Ratio	20%	80%
Return on Owner's Investment	31.25%	125%

Despite both businesses earning the same Net Profit, the owner of Speculative has earned a ROI of 125% – four times the return by the owner of Blue Chip (31.25%). This has been possible because Speculative has used more external finance (reflected in a Debt Ratio of 80%) to fund the purchase of its assets, meaning a relatively small investment by the owner. Speculative's owner is being rewarded for accepting a very high level of financial risk.

REVIEW QUESTIONS 4.6

1 **Show** the formula to calculate Return on Owner's Investment.
2 **Explain** why high risk (a high Debt Ratio) leads to a high return (Return on Owner's Investment).

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WHERE HAVE WE BEEN?

- Finance for the establishment, operation or expansion of a small business can come from internal sources such as capital contributions and retained profits (owner's equity), or external sources like a bank overdraft, trade credit, a lease or a loan (liabilities).
- Internal finance has no set repayment date and no interest, but is limited in terms of availability.
- A simple interest loan calculates the interest charge on the original amount borrowed, regardless of how much of the principal has been repaid.
- A reducing balance loan calculates the interest charge on the actual balance owing at that particular date.
- Debt Ratio assesses the extent to which a business relies on external finance to fund its assets by measuring the proportion of its assets that are financed by liabilities.
- A high Debt Ratio would indicate a high reliance on liabilities, and consequently a high risk of financial collapse.
- A high Debt Ratio will mean a higher return for the owner, as they have less capital invested, but still earn all the profits.

EXERCISES

EXERCISE 4.1
SOURCES OF FINANCE

WB page 45

In each of the following examples, **identify** the type of finance that would be most appropriate, and provide one reason to **justify** your answer:

a premises
b stock of materials
c equipment (useful life – 2 years)
d wages
e vehicle (modifications necessary)
f GST settlement
g franchise license (start-up).

EXERCISE 4.2
SOURCES OF FINANCE

WB page 46

Marina Andretti is the owner and operator of Perfect Printing, a firm that produces advertising material for other small businesses. Much of her work is done using printing equipment, which is subject to constant technological advancements. Marina has decided to purchase new printing equipment worth $24 000 using internal finance.

Required

a **Explain** why the new equipment should be classified as a non-current asset.
b **State** one advantage of using internal finance to purchase the new printing equipment.
c **Explain** how the use of internal finance to purchase the new printing equipment will affect the accounting equation of Perfect Printing.
d **Explain** one benefit which may be derived by leasing instead of purchasing the printing equipment.

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EXERCISE 4.3
SOURCES OF FINANCE AND INTEREST

WB page 47

Mobile Mike is seeking to purchase a new van worth $40 000 to transport all his DJ equipment. If Mike buys the van, he will probably keep it for five years before selling it for about $25 000. Mike has identified the following financing options:

- five-year term loan – 10% flat interest rate
- lease – $100 per week for five years.

Required

a **State** one disadvantage of using the loan as a source of finance.
b **Calculate** the total amount of interest that would be paid on the loan.
c **Explain** why the interest rate is effectively higher than 10%.
d **Calculate** the overall cost of using the loan if the vehicle is sold after five years.
e **Calculate** the cost of leasing the vehicle over the five-year period. **Show** all workings.
f **Identify** which alternative Mike should use. **State** one reason, besides cost, why he should adopt this method of finance.

EXERCISE 4.4
SOURCES OF FINANCE AND INTEREST

WB page 48

Gigantor Gym has decided to borrow $3 600 to finance the purchase of new equipment. The loan is to be repaid over two years with equal repayments being made quarterly. The owner has discovered three loan options:

- 16% p.a. simple interest
- 16% p.a. reducing annually
- 16% p.a. reducing quarterly.

Required

a **Calculate** the number of instalments that will be made over the life of the loan.
b **Calculate** how much of the principal will be repaid each quarter.
c For each loan option, **calculate**:
  - the total interest charge
  - the total amount repaid
  - the amount of each instalment.

EXERCISE 4.5
INTEREST

WB page 49

Speedy Deliveries has decided to buy a delivery van and found the following loan options available if the business borrowed $24 000 for two years, with equal repayments every month, if interest is calculated at:

- 12% p.a. simple interest
- 12% p.a. reducing half yearly
- 12% p.a. reducing every four months.

Required

a **Calculate** the number of instalments that will be made over the life of the loan.
b **Calculate** how much of the principal will be repaid each month.
c For each loan option, **calculate**:
  - the total interest charge
  - the total amount repaid
  - the amount of each instalment.

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EXERCISE 4.6
SOURCES OF FINANCE AND INTEREST

WB page 50

Voracious Vines is seeking to expand by purchasing a new van. The van will require modification to ensure the safe transport of the owner's plants, and (including the modifications) is expected to cost $30 000. After some investigation, the owner has identified the following financing options:

- retained earnings
- three-year term loan from the ANZ at 8% p.a. simple interest
- three-year term loan from the nab at 10% p.a. reducing half yearly.

Required

a **State** one limitation of using retained earnings as a source of finance.
b **Calculate** the total amount of interest that would be paid on each of the loans.
c **Explain** why the total interest charge on the nab loan is lower than the ANZ loan.
d **State** one reason why it may be inappropriate to use a lease to obtain the van.

EXERCISE 4.7
SOURCES OF FINANCE AND INTEREST

WB page 51

Vicki Pavidis is the owner of Clear Shot, a small photo-processing lab in Mentone. Vicki is seeking to expand her business by acquiring new digital imaging equipment, the latest in the market for speedy film processing. A salesperson has provided Vicki with a quote for the new acquisition of $120 000, but with the rate of technological change that is present in this line of work, the salesperson estimates that the equipment would have an expected useful life of four years. Vicki has identified three financing options:

- capital contribution
- lease arrangement of $1 500 a fortnight for four years.
- four-year (unsecured) term loan – 10% p.a., reducing yearly.

Required

a **State** one advantage and one disadvantage of using the capital contribution to finance the acquisition of the equipment.
b **Calculate** the cost of leasing the equipment over the four-year period.
c **Explain** why the interest rate on an unsecured loan would be higher than that of a secured loan.
d **Calculate** the total amount of interest that would be paid on the loan.
e **Calculate** the total cost of the loan over the four-year period.
f Referring to the information provided, **explain** why the cheapest option is not necessarily the most suitable.

EXERCISE 4.8
DEBT RATIO

WB page 53

As at 31 December 2016, the Balance Sheet of Holding Architecture revealed the following:

Total Assets	$250 000
Total Liabilities	$190 000

Required

a **Define** the term 'Debt Ratio'.
b **Calculate** the Debt Ratio for Holding Architecture as at 31 December 2016.

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c **Explain** why a high Debt Ratio indicates high risk.
d **State** the effect on Debt Ratio if Holding Architecture purchases new equipment using:
- a capital contribution
- external finance.

EXERCISE 4.9

DEBT RATIO AND RETURN ON OWNER'S INVESTMENT

W B page 54

As at 1 January 2016, Feline Grooming had Owner's Equity worth $75 000. The firm's Balance Sheet as at 31 December 2016 revealed the following.

Total Assets	$ 125 000
Total Liabilities	$ 40 000
Profit (for 2016)	$ 10 000

Required

a **Calculate** the Debt Ratio of Feline Grooming as at 31 December 2016.
b **Calculate** the Return on Owner's Investment (ROI) for Feline Grooming for 2016.
c **Explain** the relationship between risk and return.
d **Explain** one way the owner could increase her Return on Owner's Investment without changing profit.

EXERCISE 4.10

DEBT RATIO AND RETURN ON OWNER'S INVESTMENT

W B page 55

In the process of applying for a loan, the owner of Woodie's Tree Surgeons has been asked by the bank to provide the firm's financial reports. Woodie feels that the business is in great financial shape as he achieved a Return on Owner's Investment of 20% in the last financial year. The Balance Sheet as at 31 March 2016 revealed the following.

Current Assets	$30 000
Non-Current Assets	$290 000
Current Liabilities	$25 000
Non-Current Liabilities	$175 000
Profit (for the quarter ending 31 March 2016)	$12 000

Required

a **State** one other financial report that the bank would be interested in viewing prior to granting the loan. **Justify** your answer.
b **Calculate** the Debt Ratio of Woodie's Tree Surgeons as at 31 March 2016.
c **Calculate** the Return on Owner's Investment (ROI) for Woodie's Tree Surgeons for the quarter ending 31 March 2016.
d Referring to your answer to part 'c', **explain** whether Woodie should be happy with this Return on Owner's Investment.
e **Explain** one benefit of a high Debt Ratio.

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EXERCISE 4.11

SOURCES OF FINANCE, INTEREST AND DEBT RATIO

WB page 56

Imelda Avalon is the owner and operator of Traveller's Friend, a travel agent in Horsham. The firm has been operating for three years, but Imelda is looking to expand its operations by hiring another two agents. This will involve moving to larger premises and purchasing a new computer network, as well as a number of other assets. At 30 June 2016, the firm had the following assets and liabilities.

TRAVELLER'S FRIEND

Balance Sheet as at 30 June 2016

Current Assets	**$**	**$**	**Current Liabilities**	**$**	**$**
Debtors	6 500		Bank Overdraft	6 000	
GST Receivable	300		Creditors	1 000	
Stock of Brochures	200	7 000	Mortgage – nab	3 000	10 000
Non-Current Assets			**Non-Current Liabilities**		
Vehicle	26 000		Mortgage – nab		44 000
Computer Equipment	5 000		**Owner's Equity**		
Premises	82 000	113 000	Capital – Avalon		66 000
Total Assets		**120 000**	**Total Equities**		**120 000**

Additional Information

- The mortgage – nab is repayable in equal monthly instalments.
- All creditors are due in 30 days or less.
- The bank overdraft has a limit of $12 000.

Required

a **Calculate** the amount of each monthly instalment on the mortgage – nab.
b **Explain** why the interest rate will usually be lower on a mortgage than on a term loan.
c **Calculate** the Working Capital Ratio (WCR) for Traveller's Friend as at 30 June 2016.
d Referring to your answer to part 'c', **explain** whether this WCR is satisfactory.
e **Explain** one way Traveller's Friend could use short-term finance to address its liquidity situation.
f **Calculate** the Debt Ratio of Traveller's Friend as at 30 June 2016.

Imelda has decided to obtain a new computer network at a cost of $8 000 and has identified the three best options as:

Option A Lease the computer network at a cost of $35 per month for two years.
Option B Borrow $8 000 from St Jim Finance at 7% p.a. (reducing every six months), with equal repayments every six months for two years.
Option C Make a capital contribution of $8 000 cash.

Required

g **Calculate** the total cost of the lease in Option A.
h **Calculate** the total interest charge in Option B.
i **Explain** the effect of Option B on the Return on Owner's Investment of Traveller's Friend.
j **Explain** the effect of Option C on the Debt Ratio of Traveller's Friend.
k **Advise** the owner which type of finance should be used to purchase the new computer network.

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Where are we headed?

After completing this chapter, you should be able to:

- **explain** the role of source documents in the accounting process
- **explain** the effect of GST on source documents
- **explain** the effect of GST on sales and purchases
- **explain** the relationship between source documents and the Accounting Principles and Qualitative Characteristics
- **identify** transactions verified by a:
  - cash receipt
  - cheque butt
  - invoice.

CHAPTER 5

SOURCE DOCUMENTS

KEY TERMS

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

- source documents
- GST
- cash receipt
- payee
- drawee
- drawer
- not negotiable
- cheque butt
- invoice
- memo.

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5.1 THE ROLE OF SOURCE DOCUMENTS

Every small business requires information on which to base decisions, and the role of accounting is to provide that information in the form of accounting reports. However, financial reports do not automatically generate themselves they are the end result of the accounting process, shown in Figure 5.1.

Figure 5.1 ***The accounting process***

Source documents → Records → Reports → Advice

Source documents
the pieces of paper that provide both the evidence that a transaction has occurred, and the details of the transaction itself

The information communicated to the owner via the reports is the product of the recording system, which summarises and classifies transactions. But the records themselves are generated from the raw data provided in **source documents**: they provide the facts on which all subsequent accounting information will be based.

Source documents have two separate yet related functions:

1 They provide the verifiable *evidence* of the details of a transaction, thus ensuring that the information in the accounting reports will be *reliable*; that is, free from bias or subjectivity.
2 They provide the evidence that is required by the Australian Tax Office (ATO) relating to the firm's income tax and Goods and Services Tax (GST) obligations.

Storing source documents

Because of their importance, source documents must be stored and filed in a safe and organised manner. Some businesses use something as simple as an expandable file (also known as an accordion file), or a spike file to keep documents in order, while others will devote whole filing cabinets to the storage of source documents. Firms that use a computerised recording system (like QuickBooks or MYOB), can store copies of some documents electronically, but even they will have to keep hard copies of documents they have been sent by suppliers and other trading partners.

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The Goods and Services Tax (GST)

One of the more recent challenges for owners of small businesses has been the introduction of the **Goods and Services Tax (GST)**, which applies to most goods (except fresh food) and services. Under this system, the federal government taxes consumers 10% of the price of whatever they have purchased, with the business that sells the goods/service acting as a tax collector for the ATO. At the same time, any GST the business pays to its suppliers will reduce the amount it owes to the ATO.

GST
Goods and Services Tax
a 10% tax levied by the federal government on sales of goods and services

The need to verify the amount of GST owed to the ATO means it is essential that the business has accurate information relating to:

- the GST it has collected on its sales or services (which it owes to the ATO)
- the GST it has paid to its suppliers (which reduces the GST owed to the ATO).

Source documents and the GST

As a consequence of the GST, source documents must include the following information:

- 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 item/goods provided
- the price of the transaction including the GST
- the amount of the GST. (Fees of more than $1 000 must also show the name, and address or ABN of the buyer.)

Without these details, the source documents cannot be used to substantiate GST transactions, and the business may end up paying to the ATO more GST than is required.

REVIEW QUESTIONS 5.1

1. **Identify** the four stages in the accounting process.
2. Referring to one Qualitative Characteristic, **explain** the role of source documents in the accounting process.
3. **Explain** the importance of source documents in the determination of GST owing to the ATO.
4. **List** the information that must be shown on a source document that includes GST.

5.2 CASH TRANSACTIONS

The vast majority of the transactions of a small business will be conducted in cash, so being able to recognise and record cash documents is vital. Cash transactions fall into one of two categories: cash receipts and cash payments.

Cash receipts

The term **cash receipt** can refer to both the *transaction* that occurs when cash is received from another entity, as well as the *source document* that verifies that transaction. All cash received must be evidenced either by:

- a cash receipt (hand-written or generated electronically)
- a cash register receipt.

Cash receipt (1)
a source document used to verify cash received

Cash receipt (2)
a transaction that occurs when cash is received from another entity

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Cash receipts should be issued each and every time cash is received, whether it is for a cash sale or cash fees, a capital contribution, a receipt of a loan or some other source. The only exceptions are when cash is deposited directly into the firm's bank account, in which case the source document will be the Bank statement. (Bank statements will be discussed in detail in Chapter 7.)

As a source document, a receipt must specify the date of the transaction, the amount received, and the reason for the receipt of the cash. In addition, it should be numbered for easy and accurate identification. Regardless of the type of receipt issued, it must contain all the information necessary to account for the GST. In most cases, the customer will be given the original, while the business will retain a copy for its own records.

EXAMPLE

On 16 May 2016, Jerry's Temp Agency provided a secretary for the week to T. Downey – Lawyer for $600 plus $60 GST (Rec. 26.)

The receipt that would provide evidence of this cash sale is shown in Figure 5.2.

Figure 5.2 ***Cash receipt (hand-written): cash sale***

Tax invoice: 107681	**Jerry's Temp Agency**
ABN: 11 708 656 213	Punt Rd, Richmond, Victoria, 3121
Receipt: 26	

Date: 16/5/2016

Received from: T. Downey

The sum of: Six hundred dollars plus sixty dollars GST

Being for: Secretarial services

Amount: $660 Signed J. Cartman

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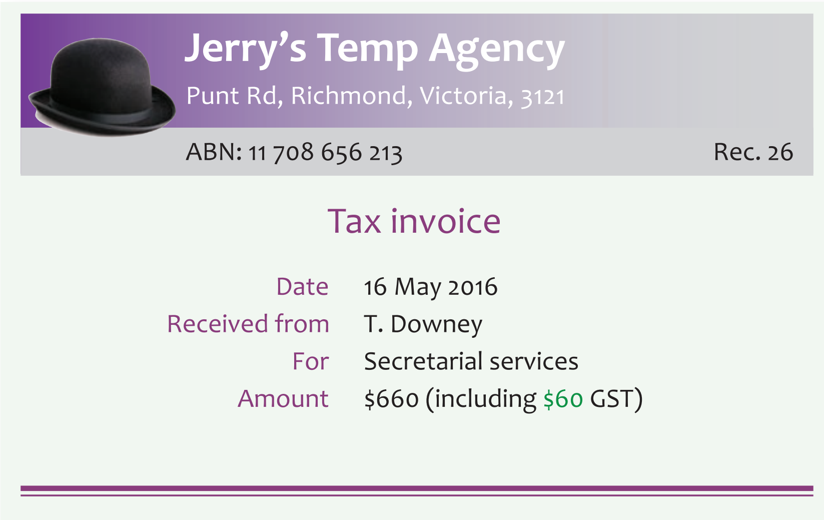
Such a receipt could easily be generated electronically, as is shown in Figure 5.3.

STUDY TIP

The ATO refers to 'cash sales' as the cash received either from the sale of a good, or provision of a service.

Figure 5.3 ***Cash receipt (electronic): cash sale***



Jerry's Temp Agency
Punt Rd, Richmond, Victoria, 3121

ABN: 11 708 656 213 Rec. 26

Tax invoice

Date	16 May 2016
Received from	T. Downey
For	Secretarial services
Amount	$660 (including $60 GST)

Exactly the same information is provided on both versions:

- 'Tax invoice'
- date of the transaction (16/5/2016)
- the receipt number (26)
- the name and ABN of the seller (Jerry's Temp Agency, ABN: 11 708 656 213)
- a description of what has been provided (Secretarial services)
- the selling price inclusive of the GST ($660). This is the amount of cash actually received.
- the amount of the GST ($60). This means the actual service price of the secretarial services is $600.

Some trading businesses (those that sell goods) will not provide an individualised receipt to each and every customer, preferring instead to issue a cash register receipt. An example of a cash register receipt is shown in Figure 5.4. (This can be dependent on the nature of the goods sold by the business: a business which sells larger, more expensive items might issue an individualised receipt but businesses which sell goods in large quantities may be more likely to simply issue a cash register receipt.)

When the cash register generates a cash receipt, it produces the original for the customer while keeping another copy for the business. The owner can examine this 'cash register roll', or its electronic equivalent, to generate a summary of the cash received in a single day's trading. If a business sells a variety of items and the cash register is set up to distinguish between certain classes of products, it can also provide a break down of the sales so a business owner can see which items are generating the most sales.

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Figure 5.4 *Cash register receipt*

Fashion House
Shop **45**

Chadstone Shopping Centre
Chadstone 3148
Telephone 03 9378 3407

#36/1/5742/9745 21/12/2016 14:43

8934	1 floral shirt	$132
	Total	**$132**

Your payment EFTPOS DEBIT $132

GST 10% Net $120 Gross $132
GST $12

Tax invoice You were served by HANS
ALL PRICES ARE GST INCLUSIVE
Receipt always required for exchange or refund.

Cash sales and the GST

At the time a cash sale is made, the business will receive the cash for the service, *plus the GST*, and this must be documented on the receipt. While the business is entitled to keep the cash for the service, the GST is collected on behalf of the Australian Government, so the business owes the GST to the government. For this reason, any GST a small business collects or receives on it sales creates a GST liability to the Australian Tax Office (ATO).

REVIEW QUESTIONS 5.2

1 **State** the source document used to verify cash received.
2 **State** the effect of GST on the amount of cash received for a sale.
3 **Explain** why the GST received on a cash sale creates a GST liability.

5.3 CASH PAYMENTS AND CHEQUE BUTTS

Just like cash receipts, all cash payments for goods and services should be evidenced by a source document, and for most cash payments this should be a cheque butt.

Paying by cheque

When a business pays by cheque, the cheque itself is given as payment and the cheque butt is retained by the business. This process can seem a little quaint, but the use of cheques as a method of cash payment provides a level of protection that is not possible with actual notes and coins. Firstly, cheques mean the owner can avoid carrying around large amounts of cash. Second, cheques can be traced to identify the business or individual who deposited the funds into their account. And lastly, the cheque butt that is retained after every payment provides evidence of the amount and use of the cash.

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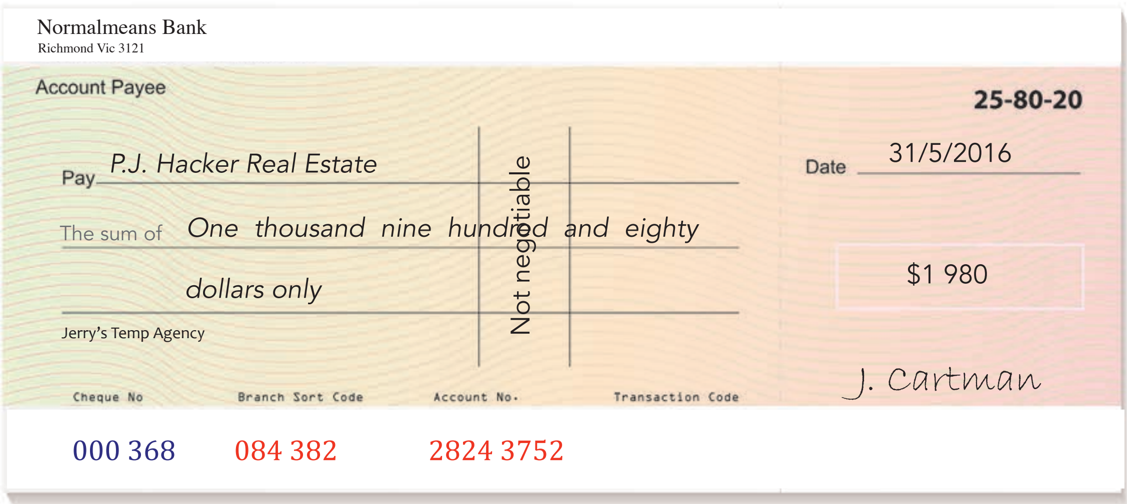
The cheque that would be given to P. J. Hacker Real Estate to present to their bank is shown in Figure 5.5.

EXAMPLE

On 31 May 2016, Jerry's Temp Agency paid $1 980 for rent $1 800 plus $180 GST (Ch. 368.)

Figure 5.5 ***Cheque***



The cheque itself is a document informing the bank (Normalmeans Bank), the **drawee**, to transfer funds from the account of the **drawer** (Jerry's Temp Agency) to the bank and account of the **payee** (P. J. Hacker Real Estate.) The drawer actually hands the cheque to the payee, who then presents it at their own bank.

Drawee
the financial institution or bank of the drawer

Drawer
the entity writing the cheque

Payee
the entity that is receiving the cheque or to whom the cheque is written

Not negotiable
a control mechanism that ensures that the cheque can only be deposited into the account of the nominated payee

Cheques should not be made out for cash when paying for business costs because if the cheque is lost then it can be cashed or deposited into any account. It is a sensible business practice to nominate the payee and cross it **Not negotiable**. A cheque that is marked 'Not negotiable' can only be deposited into the account of the nominated payee.

Note that although the cheque is signed by the owner, the entity principle assumes that the bank account belongs to the business. The *business* is therefore known as the drawer, as it is the business that is drawing on its account to pay for a purchase.

The cheque also has a number of other significant features:

Cheque number: 000 368

This is the number by which the cheque can be identified, allowing it to be traced. If anything should happen to the cheque (i.e. if it were reported lost/stolen) the drawer could inform their bank and have that particular cheque cancelled.

Account number: 084 382 2824 3752

This is the number of the drawer's bank account. The first six digits identify the bank, state and branch at which the account is held (this is known as a BSB number). The last eight identify the actual account of the drawer.

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It takes three to five working days for cheques to 'clear', where the bank of the payee checks with the bank of the drawer to ensure that there are sufficient funds in the drawer's account. If sufficient funds are available, the drawer's bank will transfer the funds to the payee's account. Obviously, if both parties (the drawer and payee) are with the same bank this process should take less time.

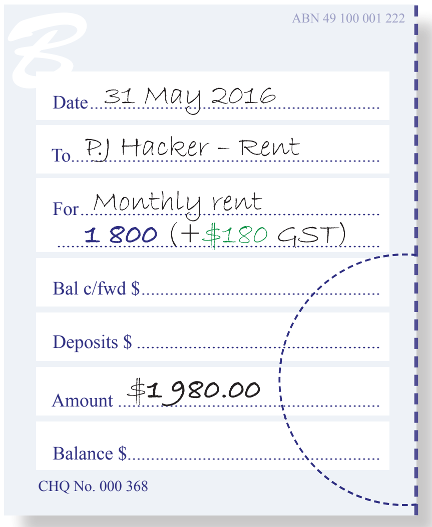
Cheque butt
a source document used to verify cash payments

Given that the cheque is given to the payee, it is the **cheque butt** that will provide evidence of the cash payment. (Even if a cheque is cancelled, the cheque butt should still be completed to avoid any unnecessary concern that the cheque may have been stolen.) The cheque butt for our example is shown in Figure 5.6.

STUDY TIP

The cheque butt provides all the relevant information, but to satisfy the ATO the business would also need to keep the tax invoice that was issued by the supplier: P.J. Hacker – Real Estate.

Figure 5.6 ***Cheque butt***



Cash payments and the GST

At the time a cash payment is made, the business will pay cash for whatever it is purchasing, *plus* the GST on the purchase, and this should be documented on the cheque butt. In this example, Jerry's Temp Agency has paid $1 800 for the rent, *plus* $180 GST. This means its bank account will decrease by **$1 980** in total.

However, if a business has paid any GST to its suppliers, it is allowed to *deduct* this from the GST it owes. That is, because the GST will be forwarded to the ATO by the firm's suppliers, it is treated as if the business had actually paid the GST straight to the government. Thus, GST paid to suppliers will actually decrease the firm's GST liability. (If a firm pays more GST than it receives, it will actually end up with a GST asset – it will be due to receive a GST refund from the ATO.)

Other forms of payment

In spite of the benefits it provides, it is not always possible to pay by cheque. Many businesses will not accept cheques unless a prior arrangement has been made, and in some cases involving small amounts, paying by cheque is simply not appropriate.

STUDY TIP

Petty cash is not actually part of this course – you don't have to know how to record it!

For small payments (such as buying milk or basic stationery), a petty cash system may be used. Under this system, a small amount of cash is set aside with individuals reimbursed from the petty cash fund for small amounts they have paid on the firm's behalf.

In other cases, the business may use debit or credit cards for purchases, or use phone and internet banking to transfer cash electronically from one account to another. However, even in these cases, the basic principles of cash recording still apply, and source documents must be kept to verify the amount and the use of the cash.

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REVIEW QUESTIONS 5.3

1 **State** three reasons why cash payments should be made by cheque.
2 **State** what is meant by the following terms:
- drawee
- drawer
- payee.

3 **Explain** why cheques should be crossed as 'Not Negotiable'.
4 **State** the document that would show a business which cheques given out had been processed.
5 **Explain** why GST paid to suppliers reduces the firm's GST liability.
6 **State** two situations in which it would be inappropriate to pay by cheque.
7 **Explain** the role of a petty cash system.
8 **State** two other forms of payment.

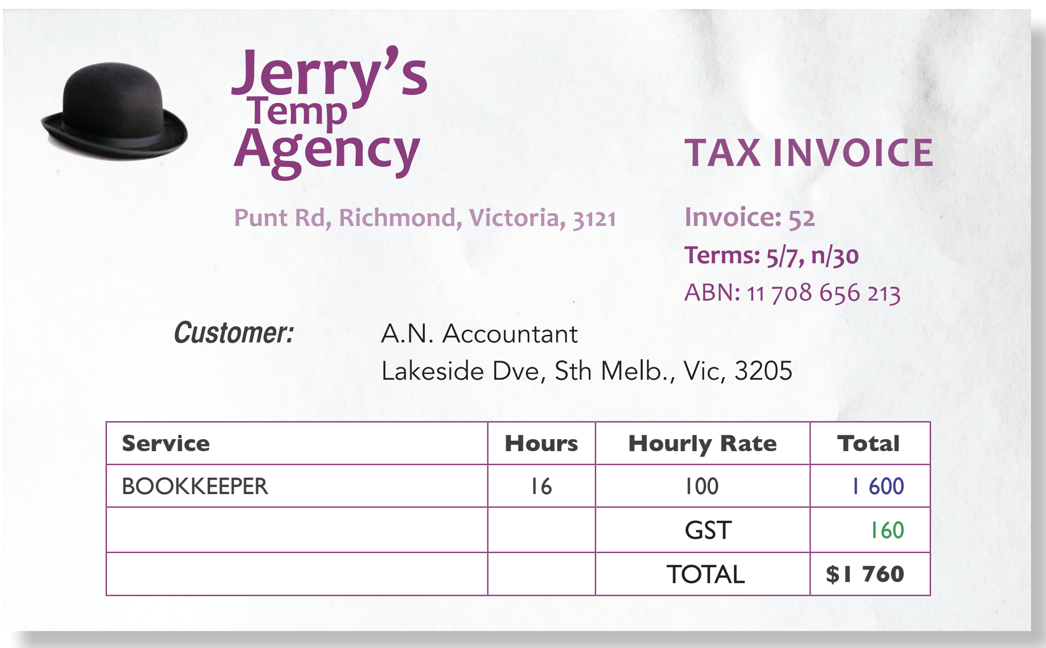
5.4 OTHER SOURCE DOCUMENTS

Credit transactions and invoices

With a cash transaction, the sale or purchase of a good or service occurs at the same time as the cash is exchanged. However, a credit transaction effectively separates a sale or purchase into two transactions: an exchange of goods or a service, and an exchange of cash which doesn't occur until a later date. When goods or services are sold or purchased on credit, the source document will be an **invoice**, which will provide the evidence of the transaction and the details necessary to record it (even though no cash has changed hands). Because GST is recognised and reported at the time of purchase or sale, the invoice must also show all the information necessary for it to be classified as a tax invoice.

Invoice
a source document used to verify credit transactions

Figure 5.7 ***Sales invoice***



Jerry's Temp Agency
Punt Rd, Richmond, Victoria, 3121

TAX INVOICE
Invoice: 52
Terms: 5/7, n/30
ABN: 11 708 656 213

Customer: A.N. Accountant
Lakeside Dve, Sth Melb., Vic, 3205

Service	Hours	Hourly Rate	Total
BOOKKEEPER	16	100	1 600
		GST	160
		TOTAL	**$1 760**

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This invoice shows that the Jerry's Temp Agency has provided a bookkeeper to its customer, A. N. Accountant, who now owes the agency **$1 760**: $1 600 for hiring the bookkeeper for 16 hours, plus $160 GST. The seller or supplier (Jerry's Temp Agency) is also the business that issues the invoice and so will have its name at the top of the invoice. Conversely, the purchaser or customer (A. N. Accountant) is named *in the middle* of the invoice. The original is sent to the customer with the copy being retained by the seller for its recording purposes. Note that even though this transaction is being carried out on a credit basis it still must display all the features required by the ATO of a tax invoice.

Internal transactions and memos

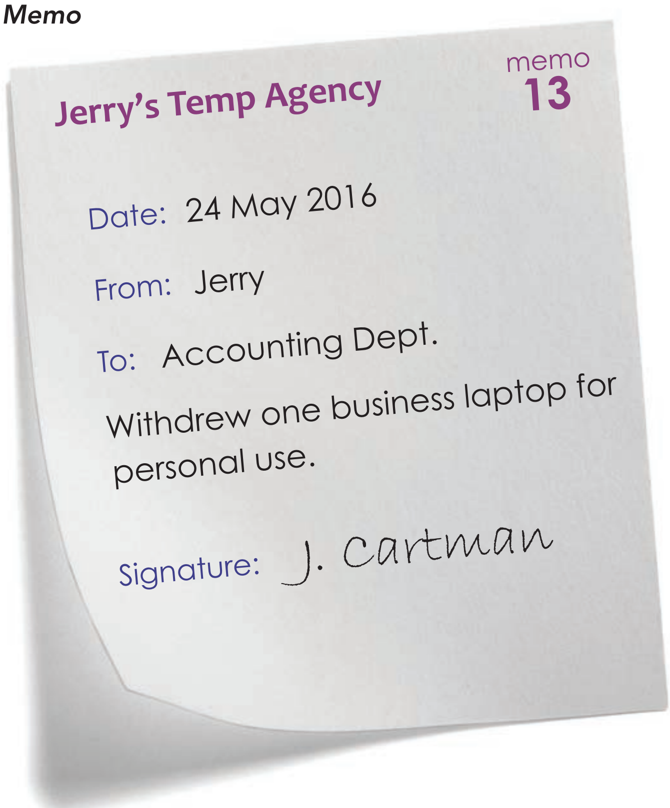
Some transactions will not be evidenced by any of the above documents, as they involve neither a sale nor purchase, nor the receipt or payment of cash (like non-cash transactions with the owner and certain stock transactions).

Memo
a source document used to verify internal transactions

These transactions must still be verified by a document, but it will be a document issued from within the firm, called a memorandum or **memo**. Memos can be issued for any number of transactions that cannot be evidenced by standard source documents, and so their format is much more flexible than the other documents discussed so far. Put simply, they will describe a particular transaction, and request that it is recorded.

Figure 5.8 shows a common layout for a memo.

Figure 5.8 ***Memo***



REVIEW QUESTIONS 5.4

1. **State** the source document used to verify a credit transaction.
2. **State** which entity receives the original and which entity retains the copy.
3. **State** the current asset created by a credit sale.
4. **State** the current liability created by a credit purchase.
5. **Explain** the purpose of a memo.

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WHERE HAVE WE BEEN?

- Source documents provide both the evidence that a transaction has occurred, and the details of the transaction itself. They ensure the reports are reliable or free from bias.
- The Goods and Services Tax (GST) is a 10% tax levied by the federal government on most goods and services (excluding fresh food, health and medical care, educational supplies and childcare).
- GST received on sales is owed to the government, but GST paid to suppliers reduces that liability.
- When cash is received, the source document will be a cash receipt.
- When cash is paid, the source document will be a cheque butt.
- When a good or a service is purchased or sold on credit, the source document will be an invoice.
- A memo is used to verify an internal transaction.

EXERCISES

EXERCISE 5.1
CASH TRANSACTION

WB page 60

The following document was found in the office of Ripper Repair, which is owned by Harry Hardwood.

Ripper Repair
294 Rowness Street
Vermont South Vic. 3133
ABN: 32 467 098 203

TAX INVOICE

Receipt no.	253	**5 Oct. 2016**
Received from	Cash fees	
The sum of	Five hundred and fifty dollars	
Being for	Repairs	
Amount		$ **500.00**
Plus GST		**50.00**
Total		$ **550.00**
Signed	*Harry Hardwood*	

Required

a **Identify** the source document above, and **describe** the transaction.
b **Explain** why this transaction creates a GST liability for Ripper Repair.
c Referring to one Qualitative Characteristic, **explain** the role of source documents in the accounting process.

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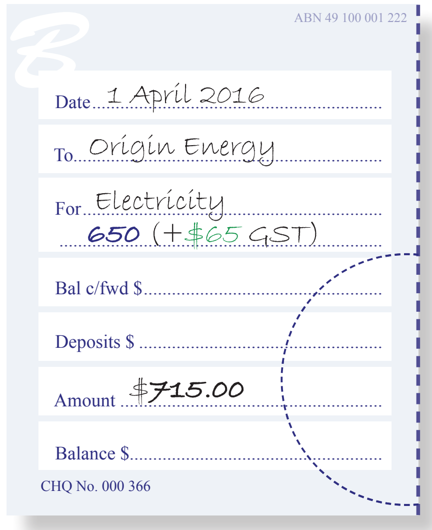
EXERCISE 5.2
CASH TRANSACTION

WB page 61

The manager of Sally's Alteration Shop discovered the following source document:


ABN 49 100 001 222

Date 1 April 2016

To Origin Energy

For Electricity

650 (+$65 GST)

Bal c/fwd $

Deposits $

Amount $715.00

Balance $

CHQ No. 000 366

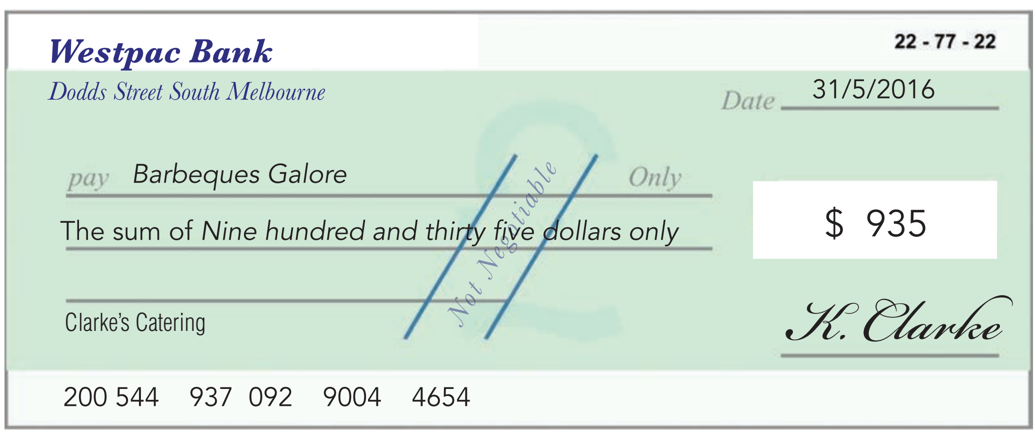
Required

- **a** **State** whether source documents take place at the input, processing or output stage of the accounting process.
- **b** **Identify** the source document above, and **describe** the transaction.
- **c** **Explain** the effect of this transaction on the GST liability of Sally's Alteration Shop.
- **d** **State** two reasons why payments should not be made using cash from the cash register.
- **e** **State** two reasons why this document would not satisfy the requirements of a tax invoice.

EXERCISE 5.3
CASH TRANSACTION

WB page 62

The following cheque was written by the owner of Clarke's Catering.


Westpac Bank

Dodds Street South Melbourne

22 - 77 - 22

Date 31/5/2016

pay Barbeques Galore Only

The sum of Nine hundred and thirty five dollars only

$ 935

Not Negotiable

Clarke's Catering

K. Clarke

200 544 937 092 9004 4654

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Required

a **Describe** the transaction evidenced by the document above.
b **Explain** why Clarke's Catering could not use this document to verify its cash payments.
c **Identify** the drawee, the payee and the drawer.
d **Explain** how added security is provided when the cheque is crossed 'Not negotiable'.
e **State** two benefits of paying by cheque

EXERCISE 5.4
CREDIT TRANSACTION

WB page 63

The accountant for Music Tuition Services came across the following source documents in a drawer.

Document A

Music Tuition Services

34 Bayside Rd, Kew 3101
ABN: 67 765 333 623

Invoice: 154
11th May 2016
Net 30 days
Tax invoice

Customer: Lakeside Primary School
103 Balmain Rd, Lakeside, Victoria, 3941
Attn: Principal Pete

Description	**Qty**	**Unit cost**	**Total**
Individual half-hour lessons	15	30	450
Plus GST 10%			45
Total		$	**495**

Document B

Office Plan
Punt Road
Richmond, 3121
ABN: 34 799 631 089

TAX INVOICE
Invoice: x65
Terms: 6/7, n/30

Customer: Music Tuition Services
Mitcham 3133

Date	**Details**	**Qty**	**Unit Price $**	**Total $**
May 15	3-drawer desk with left-side return	2	1 500	3 000
	Plus GST %10			300
			Total	3 300

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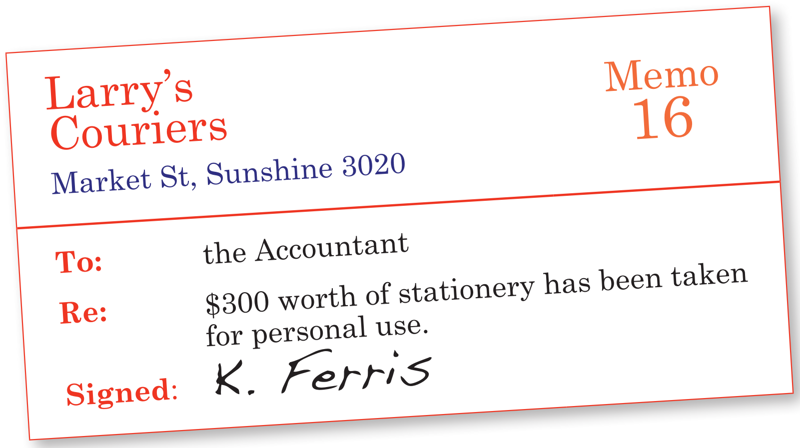
Required

a **Identify** documents A and B above, and **describe** each transaction.
b **Explain** the effect of the transaction in Document A on the GST liability of Music Tuition Services.
c **State** whether Music Tuition Services would have the original or copy of Document A. **Justify** your response.
d **Explain** why Document B decreases the GST liability of Music Tuition Services.
e **Explain** the effect of the transaction in Document B on the accounting equation of Music Tuition Services.

EXERCISE 5.5
MEMORANDUMS

WB page 64

The accountant of Larry's Couriers received the following source document in the internal mail from the manager.


Larry's Couriers
Market St, Sunshine 3020
Memo 16

To: the Accountant
Re: $300 worth of stationery has been taken for personal use.
Signed: K. Ferris

Required

a **Identify** the source document above, and **describe** the transaction.
b Referring to one Accounting Principle, **explain** why this transaction must be reported in the Balance Sheet of Larry's Couriers.
c **State** the effect (overstated/understated/no effect) on each element of the accounting equation of Larry's Couriers if this transaction was **not** recorded.

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Where are we headed?

After completing this chapter, you should be able to:

- **define** the term 'cash'
- **explain** the operation of a single-entry system to account for cash
- **list** the source documents used to verify cash transactions
- **record** transactions in cash journals, including GST
- **calculate** and **classify** a GST balance
- **prepare** a Statement of Receipts and Payments
- **record** a GST settlement and a GST refund in the cash journals.

CHAPTER 6

CASH ACCOUNTING FOR SERVICE BUSINESSES

KEY TERMS

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

- service business
- journal
- Statement of Receipts and Payments
- single-entry accounting
- Cash Receipts Journal
- Cash Payments Journal
- cash surplus
- cash deficit
- GST payable
- GST settlement
- GST receivable
- GST refund.

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6.1 SERVICE BUSINESSES AND CASH

Service business
a small business that operates by providing its time, labour or expertise (or a combination of all three) in return for a fee or charge

In Chapter 3 we considered how a small business can be classified according to the nature of its operations as a service business, trading business or manufacturing business. In that chapter, a **service business** was defined as one that provides its time, labour or expertise in return for some kind of fee. This would include small businesses run by plumbers, motor mechanics, editors, hairdressers and architects, just to name a few.

Cash recording

The majority of the transactions of service businesses like these will be conducted using cash, so it is important that the accounting system is able to generate information relating to the firm's cash position. Specifically, the information should cover the firm's:

- *cash receipts* – the amount of cash the business has received from other entities during a period, and its sources (i.e. where it has come from)
- *cash payments* – the amount of cash the business has paid to other entities during a period, and its uses (i.e. what it was spent on)
- *bank balance* – the level of cash on hand at a particular point in time.

Cash receipts will increase a firm's bank balance, while cash payments will decrease that balance.

It is worth noting that when we speak of 'cash', we are not only talking about notes and coins in the cash register (i.e. cash on hand), but also about cash in the firm's bank account, and any cheques it may have received from customers. Although these last two items are not strictly dollars and cents, they are very easily changed into dollars and cents: cash can be withdrawn easily enough from a bank account, and once deposited, cheques convert into cash after a couple of days (unless they bounce!).

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REVIEW QUESTIONS 6.1

1. **Define** the term 'service business'.
2. **List** five typical service businesses.
3. **Explain** the relationship between a firm's cash receipts, cash payments and its bank balance.
4. **List** three items that are treated as 'cash' in an accounting system.

6.2 SINGLE-ENTRY ACCOUNTING

Accounting information is communicated to the owner via written reports, but these reports are themselves based on information generated by the recording system. Remember the accounting process that was outlined in Chapters 1 and 5.

Figure 6.1 ***The accounting process***

Source documents → Records → Reports → Advice

Source documents

The first step in generating information about a firm's cash position is to collect the source documents relating to the cash it has received and paid during the reporting period. The main documents which are used to verify cash transactions are:

Cash received	Cash paid
Cash receipt Cash register roll Bank statement	Cheque butt Bank statement

Small businesses need to keep these source documents so that they can satisfy the Australian Tax Office (ATO), and verify the information they record in their cash journals. (See Chapter 5 for a detailed discussion of source documents.)

Records: Cash Journals

Once the relevant documents have been collected and sorted, it is necessary to record the data they contain in **journals**. A journal is simply an accounting record (in a manual system, like a ruled book) in which transactions are written down in an organised format. Cash transactions are recorded in one of two journals:

- *Cash Receipts Journal*, summarises all cash received by the business (from other entities) during a particular reporting period
- *Cash Payments Journal*, summarises all cash paid by the business (to other entities) during a particular reporting period.

By recording the cash transactions in a Cash Receipts Journal and a Cash Payments Journal, the raw data contained on the source documents is classified and summarised so that it becomes information, which can be presented in accounting reports.

Journal
an accounting record which classifies and summarises transactions during a particular reporting period

STUDY TIP

In accounting, 'recording' means writing down data in an organised format.

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Reports: Statement of Receipts and Payments

The penultimate (second last) stage is the preparation of accounting reports to communicate financial information to the owner.

As far as cash transactions are concerned, this means taking the information which has been generated in the Cash Receipts Journal and Cash Payments Journal, and preparing a **Statement of Receipts and Payments**. This report shows the firm's cash receipts and payments and the consequent change in its bank balance over that period, which the owner can then use to make decisions about the firm's cash activities and position.

This process of recording transactions in journals, and then using the summarised information to prepare reports, is known as **single-entry accounting**.

Statement of Receipts and Payments
an accounting report which lists cash receipts and payments during a reporting period, the change in the bank balance, and the opening and closing bank balance

Single-entry accounting
the process of recording transactions in journals and then using the summarised information to prepare reports

REVIEW QUESTIONS 6.2

1 **Draw** a flow chart to show the accounting process as it relates to cash transactions.

2 **State** the source documents that provide evidence of:
- cash receipts
- cash payments.

3 **Explain** the function of the following elements of a single-entry accounting system:
- source documents
- cash journals
- Statement of Receipts and Payments.

6.3 THE CASH RECEIPTS JOURNAL

Cash Receipts Journal
an accounting record which classifies and summarises all cash received from other entities during a particular reporting period

As we noted earlier, once the source documents are collected, they must be organised in some way so that they make sense (after all, a shoebox full of dockets hardly tells us how much cash the business has spent this week). Transactions must be classified and summarised so that the business has information rather than just data, and this is achieved by recording cash receipts in a **Cash Receipts Journal**.

EXAMPLE

Ryan Jones owns Goghs' Painting Service, a small business that specialises in interior and exterior painting. Ryan has provided the following list of cash receipts for March 2016:

March	1	Received $1 600 plus $160 GST from E. Aplin for house painting (Rec. 5)
	8	Received $1 100 (including $100 GST) from A. Stephens for fence painting (Rec. 6)
	19	Ryan contributed $700 cash to the business (Rec. 7)
	26	Received $1 650 (including $150 GST) from J.Tran for house painting (Rec. 8)

In order to classify and summarise these cash receipts, they are recorded in a multi-column Cash Receipts Journal, as is shown in Figure 6.2.

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Figure 6.2 ***Recording in the Cash Receipts Journal***

Cash Receipts Journal

Date[1]	Details[1]	Rec No.[1]	Bank[2]	Painting Fees[3]	Sundries[4]	GST[3]
March 1	Painting Fees	5	1 760	1 600		160
8	Painting Fees	6	1 100	1 000		100
19	Capital Contribution	7	700		700	
26	Painting Fees	8	1 650	1 500		150
	TOTALS	**$**	**5 210**	**4 100**	**700**	**410**

STUDY TIP

If a transaction states an amount plus GST, add them together to determine the amount to be recorded in the Bank column. If a transaction states that an amount includes GST, you already have the amount to be recorded in the Bank column.

Notes for recording in the Cash Receipts Journal:

1 Date/Details/Rec. No.

As with most accounting records, transactions are recorded in the Cash Receipts Journal in date order, with a brief description of the transaction noted in the details column. In order to satisfy the demands of reliability, the source document – which in this case is a receipt number – is recorded with the transaction. Because these receipts are issued by the firm itself (in this case, Goghs' Painting Service) the receipt numbers should run in sequence. (A missing document should be investigated immediately to identify any possible fraud.)

2 Bank

The amount of cash received is entered in the Bank column to allow calculation of the total cash received for the reporting period. This Cash Receipts Journal shows that Goghs' Painting Service received **$5 210** (cash) during March 2016.

3 Classification columns (Painting Fees, GST)

In a multi-column Cash Receipts Journal, each cash receipt must be recorded twice: once in the Bank column to record the cash received, and a second time in a classification column to record the source of that cash. These classification columns allow for *frequent* cash receipts to be summarised, so that only the *total* needs to be reported in the Statement of Receipts and Payments. In this case, most of the cash received by Goghs' Painting Service comes from Painting Fees ($4 100 in total) and the GST on those fees ($410), so 'Painting Fees' and 'GST' become column headings. A business that just performs one function may only need one column; however, a small business owner would be able to gain more information if they could further classify their receipts. In this example, Ryan could split painting fees into 'Interior Painting Fees' and 'Exterior Painting Fees' to determine which area was providing more cash.

4 Sundries

Any receipts that are infrequent should be recorded in the sundries column, because it is not necessary (or possible!) to summarise transactions that occur only once. In this case, the $700 Capital contribution made by the owner is (hopefully) infrequent.

STUDY TIP

The sundries column is like the junk drawer in your kitchen – anything which doesn't go anywhere else goes in here.

Double-checking mechanism

At the end of the period, each column in the Cash Receipts Journal should be totalled. As a double-checking mechanism, the total of the Bank column should equal the sum of the totals of the other (classification and sundries) columns.

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Using Figure 6.2 as a guide:

Bank	**5 210**	**=**		**Painting fees**	**4 100**
			+	**GST**	**410**
			+	**Sundries**	**700**
Total	**$5 210**			**Total**	**$5 210**

If these amounts do not match, then an amount has not been recorded accurately in the Cash Receipts Journal, and the totals cannot be used in the preparation of reports until the error is corrected.

GST on cash fees

As was noted in Chapter 5, the GST is a 10% tax on most goods and services sold in Australia, and it has to be collected by registered businesses. The transaction on 1 March 2016 shows that Ryan completed painting services worth $1 600, but to this amount he must also add 10% GST ($1 600 x 10% = $160 GST.) Therefore, the total charge to the customer, and the total cash received by Goghs' Painting Service, was **$1 760**.

Because the business collects GST from its customers on behalf of the federal government (and must forward this GST to the ATO), GST received on cash fees becomes a liability for the business. The GST will be paid to the ATO after the business completes and lodges its next Business Activity Statement (BAS).

STUDY TIP

In this course you will not have to remember this list because if GST is to be received, it will always be identified in the question.

Notice that not all the transactions in the Cash Receipts Journal attract GST. The transaction involving the capital contribution has no GST attached, because it is not a transaction resulting in the sale of a good or the performance of a service.

Therefore, cash receipts that are not subject to GST include:

- interest revenue (on bank accounts, term deposits or other investments)
- capital contributions
- loans.

REVIEW QUESTIONS 6.3

1. **Explain** the function of the Cash Receipts Journal.
2. Referring to one Qualitative Characteristic, **explain** why receipt numbers must be recorded in the Cash Receipts Journal.
3. **Explain** why transactions must be recorded in both the Bank column and a classification column.
4. **Explain** the function of the sundries column in a Cash Receipts Journal.
5. **Explain** the mechanism used to check the totals of the Cash Receipts Journal.
6. **Explain** why GST on cash fees creates a GST liability.

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6.4 THE CASH PAYMENTS JOURNAL

Just as cash receipts are recorded in a Cash Receipts Journal, cash payments are classified and summarised in a **Cash Payments Journal**.

Cash Payments Journal an accounting record which classifies and summarises all cash paid to other entities during a particular reporting period

EXAMPLE

Goghs' Painting Service has provided the following list of payments for March 2016:

March	1	Paid wages of $450 (Chq. 101)
	5	Owner withdrew $500 cash (Chq. 102)
	7	Purchased new equipment for $1 500 plus $150 GST (Chq. 103)
	12	Purchased paint costing $250 plus $25 GST (Chq. 104)
	16	Paid $450 wages (Chq. 105)
	20	Purchased paint costing $400 plus $40 GST (Chq. 106)
	22	Owner withdrew $400 cash (Chq. 107)
	25	Purchased paint costing $150 plus $15 GST (Chq. 108)
	28	Van was serviced for $200 plus $20 GST (Chq. 109)
	30	Paid wages of $450 (Chq. 110)

In order to classify and summarise these cash payments, they are recorded in a multi-column Cash Payments Journal, as is shown in Figure 6.3.

Figure 6.3 ***Recording in the Cash Payments Journal***

Cash Payments Journal

Date[1]	Details[1]	Chq. No.[1]	Bank[2]	Wages[3]	Drawings[3]	Paint[3]	Sundries[4]	GST[3]
Mar. 1	Wages	101	450	450				
5	Cash Drawings	102	500		500			
7	New Equipment	103	1 650				1 500	150
12	Paint	104	275			250		25
16	Wages	105	450	450				
20	Paint	106	440			400		40
22	Cash Drawings	107	400		400			
25	Paint	108	165			150		15
28	Van Service	109	220				200	20
30	Wages	110	450	450				
	TOTALS		5 000	1 350	900	800	1 700	250

Notes for recording in the Cash Payments Journal:

1 Date/Details/Chq. No.

Just like the Cash Receipts Journal, transactions are recorded in the Cash Payments Journal in date order, with a brief description in the details column. However, the source document in this case is a cheque number which is identifiable from the cheque butt. All cheque numbers should be recorded, even if the cheque is cancelled, so that all cheques are accounted for.

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2 Bank

The amount of each cash payment must be recorded first in the Bank column, to allow calculation of the total cash payments for the reporting period. This Cash Payments Journal shows that Goghs' Painting Service made cash payments of **$5 000** during March 2016.

3 Classification columns (Wages, Drawings, Paint, GST)

Just like a Cash Receipts Journal, a Cash Payments Journal has classification columns for frequent cash payments. (The headings used for each of these classification columns will of course vary between businesses, as their transactions vary.) Note that the list of payments for Goghs' Painting Service is far more diverse than the list of receipts discussed earlier, including cash payments for paint, servicing of the van, wages, the purchase of equipment, cash drawings by the owner and GST. As a result, it is common for the Cash Payments Journal to have more classification columns than the Cash Receipts Journal.

4 Sundries

This column fulfils exactly the same function as it did in the Cash Receipts Journal, recording infrequent cash payments. The cash purchase of equipment and the servicing of the van are unlikely to occur more than once per month, and so do not warrant their own column.

Double-checking mechanism

Once the columns in the Cash Payments Journal are totalled, it has exactly the same double-checking mechanism as the Cash Receipts Journal: the total of the Bank column should equal the sum of the totals of the other (classification and sundries) columns.

Using Figure 6.4 as a guide:

Figure 6.4 ***Double-checking mechanism***

Bank	**5 000**	**=**		**Wages**	**1 350**
			+	**Drawings**	**900**
			+	**Paint**	**800**
			+	**GST**	**250**
			+	**Sundries**	**1 700**
Total	**$5 000**			**Total**	**$5 000**

GST on cash payments

All sales of goods and services are subject to 10% GST, so if Goghs' Painting Service pays cash for a good or service, it will be charged GST by the supplier. The transaction on 12 March 2016 shows that Ryan purchased paint worth $250, but was then charged a further 10% GST ($250 x 10% = $25 GST.) Therefore the total cash paid to the supplier by Goghs' Painting Service was **$275**.

Because the supplier will forward this $25 GST to the ATO (when it makes its own GST settlement), the GST paid to suppliers will reduce the GST liability of Goghs' Painting Service. (It's as if Ryan has already paid off some of the liability, even though it goes to the ATO via the supplier.) Thus, any GST that is paid to suppliers can be offset against the GST received to *reduce the GST liability* to the ATO.

STUDY TIP

It is consumers who end up 'paying' the GST, because they cannot claim GST credits.

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Notice that there are two transactions in the Cash Payments Journal for March 2016 that do *not* require the payment of GST. The first of these is Wages, since the government already collects tax in the form of PAYG (Pay As You Go) income tax. The other is Drawings, which does not attract GST as it is not a transaction that involves the purchase of a good or service.

Other cash payments that are not subject to GST include:

- interest expense
- loan repayments
- commercial rates.

STUDY TIP

As with cash receipts you will not have to remember this list because when GST is to be paid it will always be identified.

REVIEW QUESTIONS 6.4

1 **Explain** the function of the Cash Payments Journal.
2 **Explain** why cancelled cheques should be recorded in the Cash Payments Journal.
3 **Explain** why a Cash Payments Journal usually has more classification columns than a Cash Receipts Journal.
4 **Explain** why GST paid to suppliers reduces the GST liability.

6.5 THE STATEMENT OF RECEIPTS AND PAYMENTS

The result of recording cash receipts and payments in cash journals will be *information* that is summarised, classified, and ready to be presented in the accounting reports.

By recording the transactions in a Cash Receipts Journal (Figure 6.2) and a Cash Payments Journal (Figure 6.3), we know that in March 2016, Goghs' Painting Service:

- *received* **$5 210** in cash from other entities ($4 100 from Painting Fees, $410 from GST and $700 from a Capital Contribution by the owner)
- *paid* **$5 000** cash to other entities ($1 350 on Wages, $900 on Drawings, $800 on Paint, $250 on GST as well as $1 500 on New Equipment and $200 on a Van Service).

Although this information is essential to accounting for cash, the journals do not provide a complete assessment of the firm's cash situation because they do not show:

- the firm's Bank Balance at the *Start* of the period
- the firm's Bank Balance at the *End* of the period
- the overall *change* (increase or decrease) in the firm's bank balance.

For this reason, we need to take the information contained within the cash journals and present it in an understandable manner. This is done by preparing a *Statement of Receipts and Payments*.

Figure 6.5 shows the Statement of Receipts and Payments for Goghs' Painting Service for March 2016.

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Figure 6.5 ***Statement of Receipts and Payments***

GOGHS' PAINTING SERVICE

Statement of Receipts and Payments for March 2016

	$	$
Cash Receipts		
Painting Fees	4 100	
GST	410	
Capital Contribution	700	**5 210**
less Cash Payments		
Wages	1 350	
Drawings	900	
Paint	800	
GST	250	
New Equipment	1 500	
Car Service	200	**5 000**
Cash Surplus (deficit)		210
add Opening Bank Balance		420
Closing Bank Balance		630

As with all accounting reports, the title of this statement identifies *who* the report has been prepared for (Goghs' Painting Service), *what* type of report it is (Statement of Receipts and Payments), and *when* (the period) it applies (March 2016). Note that the period is for March 2016, as the transactions did not happen all on one day, but rather over a number of days – a whole month in fact. (The period can be as long, or as short, as the owner desires.)

The *totals* of the classification columns and the individual amounts listed in the sundries columns are reported under the headings of cash receipts and cash payments, depending on the journal in which they were recorded. This includes the GST received on fees and paid to suppliers. The total cash receipts and cash payments reported in the Statement of Receipts and Payments should match exactly the total of each journal.

STUDY TIP

There is little point in using a journal to summarise transactions, unless the totals are reported.

Surplus (Deficit)

The overall *change* in the firm's bank balance, known as a *surplus* or *deficit*, can be calculated by deducting total cash payments from total cash receipts.

Surplus (Deficit) = Cash Receipts – Cash Payments

A **cash surplus** occurs when cash received is greater than cash paid during the period, and will lead to an increase in a positive bank balance or a decrease in a bank overdraft. A **cash deficit** occurs when cash received is less than cash paid, and will lead to a decrease in a positive bank balance or an increase in a bank overdraft.

Cash surplus
an excess of cash receipts over cash payments, leading to an increase in a positive bank balance or decrease in a bank overdraft

Cash deficit
an excess of cash payments over cash receipts, leading to a decrease in a positive bank balance or an increase in a bank overdraft

Opening bank balance

This figure represents how much cash was available in the firm's account at the start of the period. Because this balance is exactly the same as the balance at the end of the previous period, it will be the closing bank balance on the previous Statement of Receipts and Payments and/or the amount shown as Bank in the previous Balance Sheet.

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Closing bank balance

This figure represents how much cash should now be available in the firm's account, and is the amount which will be reported as Bank in the next Balance Sheet. If the balance is positive, then Bank will be reported as a current asset; if the balance is negative, then Bank overdraft will be reported as a current liability.

Deficits and overdrafts

It is worth noting at this point the difference between a cash deficit and a bank overdraft. A deficit refers to a decrease in a firm's bank balance, the *change*, but it does not necessarily mean a negative balance. (It is quite possible for a firm to have payments greater than its receipts and suffer a cash deficit, yet retain a positive bank balance due to a healthy opening balance.) An overdraft refers to a *negative balance*; it describes not a change but a *level* of cash.

Uses of the Statement of Receipts and Payments

The Statement of Receipts and Payments is more useful for decision-making than the cash journals because it summarises *all* the information relating to the firm's cash position. It can then be used to help the owner make decisions about the firm's receipts, payments and its level of cash on hand.

A high bank balance might indicate the ability to make higher loan repayments, take greater drawings, purchase newer non-current assets, or undertake other expansionary activities. A low bank balance might indicate the need for lower loan repayments, lower drawings, the use of credit for some purchases, or perhaps even a capital contribution by the owner. A business which has not yet organised an overdraft facility may wish to do so to ensure that it has sufficient funds available to meet its payments.

REVIEW QUESTIONS 6.5

1 **State** three pieces of information regarding a firm's cash position, which are not shown in the cash journals.
2 **Explain** the function of a Statement of Receipts and Payments.
3 **Show** the formula to calculate a cash surplus or cash deficit.
4 **Explain** the effect on the firm's bank balance of a:
   - cash surplus
   - cash deficit.
5 **Distinguish** between a cash deficit and a bank overdraft.
6 **Explain** how the Statement of Receipts and Payments can be used to assist decision-making.

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6.6 GST PAYABLE AND GST RECEIVABLE

STUDY TIP

GST and Bank can both be current assets or current liabilities.

When a business receives GST on services, it does so on behalf of the government, so the business owes that GST to the ATO. However, if a business has paid GST to its suppliers, it is allowed to deduct this from the GST it owes. (Because the GST will be forwarded to the ATO by the supplier, it is treated as if the business had actually paid the GST straight to the government.) Therefore, at the end of the period, the business must calculate its overall GST balance.

EXAMPLE

During March 2016, Goghs' Painting Service received GST of $410 on fees it charged to its customers, and paid GST of $250 to its suppliers.

The GST balance of Goghs' Painting Services would be calculated as is shown in Figure 6.6.

Figure 6.6 ***Calculating GST balance***

Opening GST balance		nil
Plus	GST received on fees	$410
Less	GST paid to suppliers	$250
GST payable		**$160**

In this example, Goghs' Painting Service has received more GST than it has paid, so it has GST payable of **$160**.

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GST payable

Because selling prices are usually higher than cost prices, GST received on fees will usually be greater than GST paid to suppliers. This will mean that under normal circumstances, a small business will accrue a liability in relation to GST called **GST payable**.

GST payable is a *current liability*, as the business has a present obligation which is expected to result in an outflow of economic benefits (when GST is paid to the ATO) sometime in the next 12 months. The GST will be paid to the ATO by means of a **GST settlement** after the business completes and lodges its next Business Activity Statement.

GST payable
GST owed by the business to the ATO when the amount of GST the business has received on its fees is greater than the GST it has paid to its suppliers

GST settlement
a payment made to the ATO by a small business to settle GST payable

On 1 April 2016, Goghs' Painting Service settled its GST payable from March by paying $160 to the ATO (Chq. 11)

EXAMPLE

Figure 6.7 ***Recording a GST settlement***

Cash Payments Journal

Date	Details	Chq. No.	Bank	Wages	Drawings	Paint	Sundries	GST
April 1	GST Settlement	11	160				160	

Whereas GST paid to suppliers is recorded in the GST column, a GST settlement is paid to the ATO to settle a current liability from a prior period, so it must be recorded in the sundries column. And because it is recorded in the sundries column, a GST settlement must be reported separately from GST paid to suppliers on the Statement of Receipts and Payments.

GST receivable

The fact that GST is frequently a liability does not mean that this will always be the case. If the business makes bulk purchases of goods or purchases non-current assets, then it is possible that its GST paid to suppliers could be greater than its GST received. In this case, the business will have **GST receivable** from the ATO. GST receivable is a *current asset* because the business can look forward to a future economic benefit in the form of the cash that it will receive from the ATO.

GST receivable
GST owed to the business by the ATO when the amount of GST the business has paid to its suppliers is greater than the GST it has received on its fees

On 1 July 2016, Goghs' Painting Service received a GST refund from the ATO of $320 (Rec. 19).

EXAMPLE

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Figure 6.8 ***Recording a GST refund***

Cash Receipts Journal

Date	Details	Rec. No.	Bank	Painting Fees	Sundries	GST
July 1	GST Refund	19	320		320	

GST refund
a cash receipt from the ATO to clear GST receivable

If the business finds it is in a position to receive a **GST refund** from the ATO, then this too will be recorded in the sundries column, but in the Cash Receipts Journal as the business is receiving cash from the ATO. Like a GST settlement, a GST refund would be reported as a separate item in the Statement of Receipts and Payments, but as a cash receipt rather than a cash payment.

REVIEW QUESTIONS 6.6

1. **Define** the term 'GST payable'.
2. **Explain** why most small businesses will end up with GST payable.
3. **Explain** how GST payable is reported in the Balance Sheet.
4. **Explain** why a GST settlement must be recorded in the sundries column of the Cash Payments Journal.
5. **Define** the term 'GST receivable'.
6. **State** two ways a small business could end up with GST receivable.
7. **Explain** how GST receivable is reported in the Balance Sheet.

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WHERE HAVE WE BEEN?

- Service businesses operate by providing their time, labour or expertise (or a combination of all three) in return for a fee or charge, and most of these transactions are for cash.
- 'Cash' includes notes and coins, cheques, and the balance of the firm's bank account.
- Cash receipts are verified by receipts, cash register rolls and the Bank Statement; cash payments are verified by cheque butts and the Bank Statement.
- Cash transactions are recorded in a Cash Receipts Journal or a Cash Payments Journal, so that they are classified and summarised.
- Frequent transactions are recorded in their own classification column; infrequent transactions are recorded in the sundries column.
- Cash transactions are reported in the Statement of Receipts and Payments.
- Single-entry accounting is the process of recording transactions in journals and then using the summarised information to prepare reports.
- GST received on fees creates a GST liability; GST paid to suppliers reduces that liability.
- If GST received is greater than GST paid, the business will have a GST liability, and a GST settlement will be required.
- If GST paid is greater than GST received, the business will have a GST asset, and a GST refund will be due.
- As selling prices are generally higher than cost prices, most firms will end up with a GST liability.

EXERCISES

EXERCISE 6.1
CASH JOURNALS

W B page 66

During the month of May 2016, Stan's Car Wash had the following transactions.

May 1	Received $600 for washing cars plus GST of $60 (Rec. 1–16)	$ 660
2	Paid monthly mortgage: $400 principal, $700 interest (Chq. 124)	1 100
8	Received $770 for car detailing including $70 GST (Rec. 17–25)	770
9	Received interest from SEC Bonds (Bank Statement)	75
12	Received $550 including $50 GST for car washes (Rec. 26–33)	550
13	Paid for water recycling bill including $35 GST (Chq. 125)	385
	Paid for detergents and wax, including $5 GST (Chq. 126)	55
14	Paid for insurance of $240 plus $24 GST (Chq. 127)	264
15	Received $715 for car detailing including $65 GST (Rec. 34–46)	715
16	Purchased new equipment for $500 plus $50 GST on credit (Inv. X 12)	550
18	Paid for detergents and wax, including $3 GST (Chq. 128)	33
20	Paid water recycling bill of $400 plus $40 GST (Chq. 129)	440
22	Received $484 including $44 GST for car washes (Rec. 47–52)	484
24	Paid for repairs to vacuum cleaner including $12 GST (Chq. 130)	132
26	Paid for detergents and wax, including $4 GST (Chq. 131)	44
27	Paid for water recycling including $25 GST (Chq. 132)	275
29	Received $396 for car detailing including $36 GST (Rec. 53–58)	396
30	Paid telephone bill: $170 plus $17 GST (Chq. 133)	187

As at 30 April 2016, the business had $750 in the bank.

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Required

- ⋆ **a** **Record** the cash transactions for May 2016 in the cash journals of Stan's Car Wash, and **total** the journals.
- **b** **Prepare** a Statement of Receipts and Payments for Stan's Car Wash for May 2016.
- **c** **Explain** the relationship between the cash journals and the Statement of Receipts and Payments.
- **d** **State** the effect on each element of the accounting equation of the transaction on 16 May 2016.

EXERCISE 6.2
CASH JOURNALS

WB page 68

Sadie La Voce has her own cleaning company, Vac and Sweep, and has provided the following list of transactions for August 2016.

Aug 1	Received $220 (including $20 GST) for house cleaning (Rec. 42)
2	Paid rent for the coming month: $4 000 plus $400 GST (Chq. 221)
5	Received $220 including $20 GST for house cleaning (Rec. 43)
6	Paid wages of $1 500 (Chq. 222)
7	Purchased cleaning supplies for $350 plus $35 GST (Chq. 223)
12	Received $231 (including $21 GST) for office cleaning (Rec. 44)
13	Sadie withdrew $400 cash for personal use (Chq. 224)
15	Received $297 (including $27 GST) for home cleaning (Rec. 45)
16	Paid for advertising of $360 plus $36 GST (Chq. 225)
19	Received $495 (including $45 GST) for office cleaning (Rec. 46)
26	Received $250 for home cleaning plus $25 GST (Rec. 47)
28	Purchased cleaning supplies $280 plus $28 GST (Chq. 226)
29	Received $407 including $37 GST for home cleaning (Rec. 48)
30	Paid $600 for advertising plus $60 GST (Chq. 227)

At the start of August 2016, the business had $6 000 cash in its bank account.

Required

- ⋆ **a** **Record** the transactions for August 2016 in the cash journals of Vac and Sweep, and **total** the journals.
- **b** **Prepare** a Statement of Receipts and Payments for Vac and Sweep for August 2016.
- **c** Referring to one Qualitative Characteristic, **explain** why sundries are itemised in the Statement of Receipts and Payments.
- **d** **Calculate** the GST balance for Vac and Sweep as at 31 August 2016.
- **e** Referring to your answer to part 'd', **show** how the GST balance would be reported in the Balance Sheet for Vac and Sweep as at 31 August 2016.

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EXERCISE 6.3
CASH JOURNALS

page 71

Minor Mechanics is an automotive repair shop owned and run by Patrick Minor. Patrick has provided the following list of transactions for July 2016.

July	1	Received $440 including $40 GST for repair work	Rec. 12
	4	Received $550 including $50 GST for repair work	Rec. 13
	5	Paid apprentice's wages of $550	Chq. 302
	7	Withdrew $600 cash for personal use	Chq. 303
	9	Received $352 including $32 GST for tune up	Rec. 14
	12	Purchased office furniture $1 500 plus $150 GST	Chq. 304
	14	Patrick contributed $800 to finance the new office furniture	Rec. 15
	15	Paid monthly instalment of $700 on loan principal	Bank statement
		Paid $300 interest on loan	Bank statement
	18	Paid apprentice wages of $540	Chq. 305
	19	Received $610 plus $61 GST for repair work	Rec. 16
	21	Withdrew $300 cash and $70 parts for personal use	Chq. 306
	22	Received $209 including $19 GST for tune up	Rec. 17
	25	Received $253 including $23 GST for tune up	Rec. 18
	28	Patrick paid $780 off his credit card using a business cheque	Chq. 307
	30	Received $660 including $60 GST for repair work	Rec. 19

The previous Statement of Receipts and Payments showed a closing bank balance of $300.

Required

* **a** **Record** the transactions for July 2016 in the cash journals of Minor Mechanics.

b **Explain** how Patrick would have determined the headings of the classification columns in the Cash Payments Journal.

c **Prepare** a Statement of Receipts and Payments for Minor Mechanics for July 2016.

d **State** two actions that Patrick could have taken to avoid incurring an overdraft in July 2016.

e **Calculate** the GST balance for Minor Mechanics as at 31 July 2016.

f Referring to your answer to part 'e', **explain** how the GST balance would be reported in the Balance Sheet as at 31 July 2016.

EXERCISE 6.4
CASH JOURNALS AND SOURCE DOCUMENTS

page 73

Jeff Buckley is the owner and operator of Sweethearts Photography, a photography firm which specialises in wedding photography, but also takes formal portraits for families and other groups. As at 1 April 2016, the business had $1 500 in its bank account and GST payable of $720.

The following transactions occurred during April 2016.

April	1	Paid GST settlement to ATO (Chq. 643)	
	2	Paid for photography materials worth $850 plus $85 GST (Chq. 644)	$ 935
	4	Received $462 including $42 GST for portraits (Rec. 201)	462
	6	Received $660 including $60 GST for wedding photos (Rec. 202)	660
	8	Cash drawings (Chq. 645)	400
	9	Interest on investment (bank statement)	110
	12	Received $880 including $80 GST for wedding shoot (Rec. 203)	880
	16	Paid wages (Chq. 646)	500
	18	Received $385 including $35 GST for portraits (Rec. 204)	385
	22	Paid for photography materials $750 plus $75 GST (Chq. 647)	825
	23	Received $990 including $90 GST for wedding photos (Rec. 205)	990
	25	Received $550 including $50 GST for family portraits (Rec. 206)	550
	26	Purchased camera equipment $1 950 plus $195 GST (Chq. 648)	2 145
	28	Received $220 including $20 GST for portrait (Rec. 207)	220
	29	Paid wages (Chq. 649)	500

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Jeff has decided that the following transaction should be excluded from the cash journals.

Phil's Photo Shop
ABN: 55 554 989 617
Level 1
Highpoint Shopping Centre
Maribyrnong,Vic, 3032
TAX INVOICE

Invoice: 91
29 April 2016

Sweethearts Photography	Qty	Cost	Total
C/o: J. Buckley			
Film – Kodak 400	25	8	200
Paper – A45	10	15	150
GST			35
Strictly 30 days		**Total**	**$385**

Required

- **a** **Explain** why Jeff is correct to exclude this transaction from the cash journals.
- * **b** **Complete** the cash journals of Sweethearts Photography for April 2016.
- **c** **Explain** the effect on the Balance Sheet of Sweethearts Photography of the GST settlement on 1 April 2016.
- **d** **Prepare** a Statement of Receipts and Payments for Sweethearts Photography for April 2016.
- **e** **Calculate** the GST balance for Sweethearts Photography as at 30 April 2016.

EXERCISE 6.5
CASH JOURNALS AND SOURCE DOCUMENTS

WB page 75

Jack Ryan is a political analyst who owns a consultancy firm called Polling Times. The firm's main source of revenue is from advising political parties about policies and the mood of the voters. As at 1 July 2016, the business had a bank overdraft of $1 000 and GST receivable of $720. The following transactions occurred during July 2016.

July	1	Received a GST refund from the ATO (Rec. 44)
	2	Paid travel expenses $500 plus $50 GST (Chq. 105)
	3	Jack withdrew $850 cash (Chq. 106)
	5	Paid $1 500 wages (Chq. 107)
		Received $2 750 including $250 GST as research fees (Rec. 45)
	8	Paid electricity bill of $650 plus $65 GST (Chq. 108)
	10	Jack withdrew $900 cash for personal use (Chq. 109)
		Received $4 000 plus $400 GST for consulting fees (Rec. 46)
	12	Owner contributed $4 000 cash (Rec. 47)
		Paid travel expenses $600 plus $60 GST (Chq. 110)
	15	Received $3 960 including $360 GST for consultancy fees (Rec. 48)
	19	Paid $1 500 wages (Chq. 111)
	21	Paid travel expenses of $1 000 plus $100 GST (Chq. 112)
	23	Received $1 540 including $140 GST in research fees (Rec. 49)
	24	Paid monthly rent $1 200 plus $120 GST (Chq. 113)

The following documents were found behind the cash register and have not yet been recorded.

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DOCUMENT A

National Australia Bank

Date 26th July 2016

To Image Works

For Advertising
300 plus $30 GST

Bal c/fwd $

Deposits $

Amount $330.00

Balance $

CHQ No.114

DOCUMENT B

CPX Computers
35 High St
Preston Vic, 3072
ABN: 15 440 342 188
TAX INVOICE

Date: 27/7/16
Invoice: 10
Duplicate:
Terms: 30 days

Charge to: Polling Times
491 Keilor Rd, Niddrie, 3042
ABN: 23 500 682 112

Attn: J. Ryan

Item	Qty	Unit cost	Total
Apple i-Book Laptop – Orange w/ software	1	2 500	2 500
GST			250
Total		$	2 750

DOCUMENT C

National Australia Bank

Date 28th July 2016

To Cash

For House insurance -Ryan family
500 plus $50 GST

Bal c/fwd $

Deposits $

Amount $550.00

Balance $

CHQ No.115

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DOCUMENT D

Polling Times
491 Keilor Rd
Niddrie, 3042

ABN: 23 500 682 112

TAX INVOICE

29 July 2016

Receipt no.	**50**
Received from	Victorian Conservative Party ABN: 40 103 665 782
The sum of	One thousand, five hundred dollars plus one hundred and fifty dollars GST
Being for	Cash fees
Amount	$ 1 650.00
Plus GST	
Signed	Jack Ryan

Required

- **a** **Explain** why Polling Times had GST receivable as at 30 June 2016.
- **b** **Explain** the effect of the transaction in Document B on the Balance Sheet of Polling Times.
- **c** Referring to one Accounting Principle, **explain** why the transaction in Document C leads to a decrease in Jack's Owner's Equity.
- * **d** **Record** the relevant transactions in the cash journals of Polling Times. **Total** the journals.
- **e** **Prepare** a Statement of Receipts and Payments for Polling Times for July 2016.

EXERCISE 6.6

CASH JOURNALS AND SOURCE DOCUMENTS

W B page 77

Nik Kershaw is the owner/operator of Wooden It Be Good, a carpentry firm that specialises in the restoration of antique furniture. As at 31 May 2016, the business had $3 500 in its bank account.

The following transactions occurred during June 2016.

June	1	Nik withdrew $400 cash (Chq. 239)
	3	Cash fees received $781 including $71 GST (Rec. 51)
	6	Purchases restoration supplies costing $500 plus $50 GST (Chq. 240)
	13	Cash fees received of $495 including $45 GST (Rec. 52)
	16	Nik withdrew $750 cash (Chq. 241)
	17	Nik contributed $1 500 cash and $400 worth of tools (Rec. 53)
	19	Purchased equipment, paying $990 including $90 GST (Chq. 242)
	24	Received cash fees of $880 including $80 GST (Rec. 54)
	25	Interest earned on bank account: $15 (Bank Statement page 34)
	27	Payment of loan principal: $200 (Bank Statement page 34)

The following documents have not yet been recorded.

ISBN 978-1-107-65709-0

DOCUMENT A

Date 28th June 2016

To Fletchers of Ballarat

For Restoration supplies
150 plus $15 GST

Bal c/fwd $

Deposits $

Amount $165.00

Balance $

CHQ No.000 243

DOCUMENT B

Wooden It Be Good
Furniture Restoration

14 Menzies Ave
Sunbury, 3429

ABN: 33 405 662 310

TAX INVOICE
Receipt: 55

Date	30 June 2016
Received from	Warren Walters
The sum of	Three hundred dollars plus thirty dollars GST
Being for	Fees – Repairs and French polishing
Amount	$ 330
Signed	Nikolas J. Kershaw

Nik presented the following GST calculation for the quarter ended 30 June 2016.

	GST received on carpentry fees	$ 3 500
Less	GST paid to suppliers	1 400
	GST payable	$ 2 100

Required

* **a** **Record** the transactions for June 2016 in the cash journals of Wooden It Be Good. **Total** the journals.

b **Explain** one benefit of recording transactions in cash journals.

c **Prepare** a Statement of Receipts and Payments for Wooden It Be Good for June 2016.

d **Explain** the difference between a cash deficit and an overdraft.

e **Explain** how the GST payable should be reported in the Balance Sheet of Wooden It Be Good as at 30 June 2016.

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EXERCISE 6.7
CASH JOURNALS AND SOURCE DOCUMENTS

WB page 79

Fiona Darmanin is the owner of a small structural engineering consultancy firm called Daring Designs. Her main sources of revenue are from consultancy fees and design/drawing fees. Fiona has recorded the month's transactions up to 27 May 2016, and these are shown in the following cash journals.

Cash Receipts Journal

Date	Details	Rec. No.	Bank	Consulting fees	Design fees	Sundries	GST
May 2	Grogan Revell P/L	904	583	530			53
7	Tony Trevally	905	462		420		42
12	YRE Constructions	906	374	340			34
16	Highett Preschool	907	550	500			50
19	Hume City Council	908	319		290		29
24	Wendell & Assoc.	909	715	650			65

Cash Payments Journal

Date	Details	Chq. No.	Bank	Drawings	Wages	Advertising	Sundries	GST
May 1	Drawings	20103	50	50				
5	TryUs Ads P/L	20104	451			410		41
9	Wages	20105	620		620			
11	Interest on Loan	20106	55				55	
13	Drawings	20107	120	120				
	Wages	20108	620		620			
20	Telephone	20109	176				160	16
	Lease of Vehicle	20110	275				250	25

The following documents are yet to be recorded.

DOCUMENT A

54 Greenhills Road
Bundoora 3145

TAX INVOICE
Receipt: 910

Daring Designs

ABN: 33 405 662 310

Date	27 May 2016
Received from	Redwood Property Investors P/L
The sum of	Nine hundred dollars plus $90 GST
Being for	Design fees for Greenlakes Golf Retreat (Job no. 01–32)
Amount	$ 990
Signed	F. Darmanin

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DOCUMENT B

Date 28/5/16

To F. Darmanin

For Deposit on family hoiday to Bali

Bal c/fwd $

Deposits $

Amount $ 1 100 including $100 GST

Balance $

CHQ No.20111

DOCUMENT C

54 Greenhills Road
Bundoora 3145

TAX INVOICE

Receipt: 911

Daring Designs

ABN: 33 405 662 310

Date	29 May 2016
Received from	Peter Trevite (employee)
The sum of	One hundred and thirty dollars plus $13 GST
Being for	Rent of office space for 21st birthday party
Amount	$ 143
Signed	F. Darmanin

DOCUMENT D

Date 30/5/16

To Unidraw Supplies

For Drawing supplies

Bal c/fwd $

Deposits $

Amount $ 110 including $10 GST

Balance $

CHQ No.20112

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Additional information:

- As at 1 May 2016, the business had GST payable of $380.
- On 31 May 2016, Fiona used her phone banking facilities to determine that the business had $1 400 in its bank account.

Required

a Referring to one Qualitative Characteristic, **explain** the importance of source documents in the accounting process.

b **Identify** the party who will keep the original of Document A.

c **Suggest** one reason why two separate columns have been established for fees in the Cash Receipts Journal.

d **State** the effect (overstated/understated/no effect) on each element of the accounting equation if the transaction in Document B was **not** recorded.

e **Identify** one weakness in the way Fiona records her cash payments.

* f **Record** the transactions for May 2016 in the appropriate cash journals. **Total** the journals.

g **Prepare** a Statement of Receipts and Payments for Daring Designs for May 2016.

h **Calculate** the GST balance for Daring Designs as at 31 May 2016.

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Where are we headed?

After completing this chapter, you should be able to:

- **describe** various methods of internal and cash control
- **explain** the purpose of bank reconciliation
- **identify** direct debits (including dishonoured cheques), direct credits and errors and **record** them in the cash journals
- **identify** deposits not yet credited and unpresented cheques
- **prepare** a Bank Reconciliation Statement.

CHAPTER 7

CASH CONTROL

KEY TERMS

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

- internal control
- cash control
- bank statement
- bank reconciliation
- direct credit
- direct debit
- dishonoured cheque
- deposit not yet credited
- unpresented cheque
- Bank Reconciliation Statement.

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7.1 INTERNAL CONTROL

Like all small businesses, those in the service industry are highly reliant on their assets to carry out their operating activities. Whether it is the cash that pays for supplies, the tools that are used to perform the service, the vehicle that is used to travel between jobs, or simply the phone on which work is organised, assets are vital to the firm's ability to earn revenue. Therefore, it is essential that every small business has in place **internal control** mechanisms to protect its assets from theft, damage and misuse.

Internal control
the procedures and strategies used to protect the firm's assets from theft, damage and misuse

Internal control mechanisms

Some of the more common internal control mechanisms include:

- *Physical safeguards* prevent unauthorised people from accessing a particular asset through barriers such as fences, padlocks or locked storerooms, and for cash in particular, through the use of safes, lock-boxes and lockable cash drawers. If people cannot touch the asset, they have less chance of misusing or misappropriating it.
- *Preventative safeguards* involve dissuading misuse or theft of assets through the threat of apprehension. Systems such as alarms and security cameras (open, hidden and even dummy) work on the premise that people are less likely to attempt theft if they are concerned they will be caught.
- *Separation of duties* involves ensuring that no one employee (except the owner) has complete control over a particular type of asset, so their actions are open to scrutiny by another employee. The more people involved in the process, the less chance there is of collusion occurring.
- *Rotation of duties* involves ensuring that tasks are not always performed by the same employee, so that their actions are open to scrutiny by the next employee who performs that task. (This has the added benefit of multi-skilling employees, who can then perform a number of tasks.)
- *Careful hiring practices* involve effective screening and assessment of potential employees to ensure that only the most trustworthy and responsible candidates are employed. This should reduce the need to rely on other internal control mechanisms.
- *Effective employee training* involves ensuring that staff are skilled in the use and management of the assets they are required to use or supervise, reducing the likelihood that assets are damaged through misuse. This is particularly the case for equipment, but also protects another of the firm's assets – its staff!

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REVIEW QUESTIONS 7.1

1 **Define** the term 'internal control'.
2 Briefly **describe** five internal control mechanisms.

7.2 CASH CONTROL

Of all the assets under the control of a small business, the asset most at risk, and therefore most in need of protection, is cash. Cash is vital to the existence of a small business, but it is easy to remove, easily concealed, and difficult to trace. For this reason it is essential that every small business has effective **cash control** mechanisms.

Cash control the procedures and strategies used to protect the firm's cash

Obviously, the internal control mechanisms mentioned above can be applied to the protection of cash; however, there are other cash-specific procedures that can also be applied.

- *All cash transactions should be verified by a pre-numbered document* (such as a cash receipt, or a cheque butt).
- *All payments should be made by cheque* because they are more secure (allowing large payments to be made without the risk of carrying cash), they can be cancelled if lost or stolen, and the eventual recipient of the funds can be traced if necessary. In addition, the cheque butt allows for the recording of the details of the transaction.
- *Payments should not be made directly from the till* because the owner cannot verify how much has been taken, or if it is being used for proper purposes.
- *Cash in registers should be verified against the cash register roll* to ensure that all cash received is accounted for.
- *A petty cash system should be used for small payments*, so that all payments are verified and authorised.
- *Cash should not be kept on the premises* in large quantities or overnight, as this not only increases the likelihood of theft, but also the potential loss if theft occurs.
- *Takings should be banked at least daily*, but not at the same time every day.
- *Cash procedures should be changed periodically* so that potential thieves are uncertain as to the level and location of any cash on hand.
- *Accurate and up-to-date cash records must be kept* so that discrepancies can be detected quickly and investigated. This would require the implementation of a system similar to the one described in Chapter 6.
- *A bank reconciliation should be conducted regularly* to ensure that the cash records of the business match those kept by the bank. (This will be covered in detail in the next section.)

REVIEW QUESTIONS 7.2

1 **State** one way each of the following internal control mechanisms could be applied to the protection of cash:
   - physical safeguards
   - separation of duties
   - rotation of duties.
2 **State** three benefits of making payments by cheque.
3 **Explain** why small payments should be made using a petty cash system rather than straight from the register.
4 **List** five other cash control mechanisms.

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7.3 THE BANK STATEMENT

In Chapter 6 we considered how cash transactions are recorded and reported, beginning with the cash receipts and cheque butts that provide the evidence, and ending with the Statement of Receipts and Payments, which reports the financial information to the owner. The whole point of starting with the source documents was to ensure that the information in the reports would be reliable, and provided the source documents themselves are accurate, so too should the information in the reports.

However, the information in the journals is sometimes incomplete, with not all transactions affecting the firm's bank balance being apparent. For instance, some businesses authorise payments (like those for a mortgage) to be made directly from their account without the need for a cheque to be written. As a consequence, the owner needs a mechanism to verify that all the firm's cash transactions are accounted for, and that they have an accurate assessment of the firm's cash position.

Bank Statement
a record kept by the bank of all transactions affecting a particular bank account

Fortunately, this checking mechanism is provided in the form of the firm's **Bank Statement**. A bank statement is a record, kept and provided by the firm's bank, of all the transactions affecting the firm's bank account. When used in conjunction with the cash journals kept by the firm, it can be used to verify the firm's cash transactions to ensure that the owner has an accurate and complete assessment of the firm's cash position.

Unlike the accounting records we have examined so far, the Bank Statement has a running balance – it is updated after every transaction – so that the user can see the firm's bank balance on any particular day. Cash receipts, or deposits, are recorded in the credit column and increase the balance, while payments, or withdrawals, are recorded in the debit column and decrease the balance. Consequently, a Credit (CR) balance indicates a positive balance, whereas a Debit (DR) balance indicates an overdraft. Figure 7.1 shows that Willow's Window Wash has a bank balance of $1 007 CR (cash in the bank) as at 31 July 2016.

Note that although each cash transaction for 2016 is recorded here, the level of detail is much less than we are used to seeing in the Cash Receipts Journal or Cash Payments Journal. In fact, payments are identified simply by the cheque number, and receipts by the abbreviation CSH/CHQS, indicating the nature of what was deposited, but not its source.

STUDY TIP

An overdraft can also be indicated by the letters OD – overdraft/overdrawn.

Theoretically, the information on this bank statement should match the information recorded by the firm in its own cash journals, but it is only by comparing the two sets of records, the bank statement produced by the bank and the journals produced by the firm, will we be able to see if this holds true. This is performed by carrying out a bank reconciliation.

Figure 7.1 shows the bank statement for Willow's Window Wash for July 2016.

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Figure 7.1 ***Bank statement***

Argus Bank of Australia AC No. 43 63 89

A/C holder: Willow's Window Wash
123 Tree Way
Gumsville 3243

Date	Particulars	Debit	Credit	Balance
2016		$	$	$
July				
1	Balance forward			4 830 CR
2	501	1 000		3 830 CR
2	CSH/CHQS		1 320	5 150 CR
5	Service fee	15		5 135 CR
11	502	220		4 915 CR
13	CSH/CHQS		1 100	6 015 CR
15	504	1 450		4 565 CR
20	505	3 960		605 CR
25	CSH/CHQs		850	1 455 CR
28	506	440		1 015 CR
29	Transaction fee	10		1 005 CR
30	Interest		2	1 007 CR
TOTALS THIS PAGE		$7 095	$3 272	
Final Balance			**CREDIT**	**$1 007**

REVIEW QUESTIONS 7.3

1 **State** the function of a bank statement.
2 Referring to a bank statement, **identify** the type of transactions that are recorded in the:
- credit column
- debit column.

3 **Explain** how the bank statement can be used to verify the accuracy of the firm's own cash records.

7.4 BANK RECONCILIATION

Bank reconciliation is the process of verifying the entries in the firm's cash journals by comparing them against the transactions recorded on the bank statement. Theoretically both records should show the same transactions; however, there are two main reasons why this will not always be the case:

- there may be transactions the bank knows about, but the business does not
- there may be transactions the business knows about, but the bank does not.

Bank reconciliation the process of verifying that the entries in a firm's cash journals are the same as those recorded by the firm's bank on the bank statement

Transactions the firm did not know about

As was discussed earlier, cash is sometimes deposited or withdrawn directly from the firm's account, and so will be recorded on the bank statement, but not in the cash journals.

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1 **Direct credits** occur when cash is deposited directly into the firm's account for items such as interest earned. In addition, using internet banking, Bpay and other similar services, customers can pay amounts directly into the firm's bank account without having to come into the business or sending a cheque.

2 **Direct debits** occur when cash is withdrawn directly from the firm's account for payments such as interest, bank fees or charges, or government taxes, or regular payments such as loan instalments. This would also be the case if the business deposits a cheque that was later dishonoured.

A **dishonoured cheque** is one that a business accepts from a customer and deposits into its account, only to find out that there are insufficient funds in the customer's account to allow the payment to be made. It is initially credited to the firm's account (as a deposit which increases the balance), but is recorded as a direct debit (and deducted from the account) when the bank reverses the previous deposit. A business that has the misfortune of receiving a dishonoured cheque must follow up with the customer from whom the cheque was received in the first place, and demand payment in some other form.

These transactions that are not yet recorded in the firm's records must be added to the cash journals.

Direct credit
a deposit of cash directly into a bank account

Direct debit
a withdrawal of cash directly from a bank account

Dishonoured cheque
a cheque that cannot be honoured/exchanged for cash because there are insufficient funds in the account of the drawer to allow the payment to be made

Items that the firm does not know about will appear on the bank statement but not in the cash journals, and so must be added to the cash journals.

STUDY TIP

When a cheque is dishonoured, it is said to have 'bounced'.

Transactions the Bank did not know about

On the other hand, there will be transactions that the firm knows about, but the bank is yet to discover. These transactions will be recorded in the cash journals, but not on the bank statement.

1 Deposits not yet credited

At certain times, receipts that have been recorded (in the Cash Receipts Journal) – and banked – will not be processed by the bank in time to appear on this month's bank statement. This mainly relates to deposits that are made at the end of a month or on the day that the bank statement is being prepared. Because they would usually appear in the credit column, they are **deposits not yet credited** (although they should appear on next month's bank statement).

2 Unpresented cheques

Unpresented cheques are those that have been written, recorded in the cash payments journal and presented to the intended payees; however, the payee has yet to deposit it into their account, or 'present' the cheque to claim the cash. Until the cheque is presented, the bank will have no knowledge of its existence, or that the business has spent that cash.

Unlike the cash journals which can simply be updated, the transactions about which the bank is not yet aware cannot just be scrawled onto the bank statement. (The bank statement is a legal document.) Instead, they will have to be reported in a **Bank Reconciliation Statement**.

Deposit not yet credited
a cash deposit that is yet to appear on the bank statement (usually due to the timing of its preparation)

Unpresented cheque
a cheque that has not yet been presented for payment by the payee.

Bank Reconciliation Statement
an accounting report which attempts to explain the difference between the bank balance determined in the firm's records and the bank balance reported on the bank statement

Items that the bank does not know about will appear in the cash journals but not on the bank statement, and so must be reported in a Bank Reconciliation Statement.

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REVIEW QUESTIONS 7.4

1 **State** the two main reasons for differences between the bank statement and cash journals.
2 **Define** the following terms:
 - direct debit
 - direct credit
 - deposit not yet credited
 - unpresented cheque
 - dishonoured cheque.
3 **Explain** the process to account for direct debits and direct credits.
4 **Explain** the process to account for deposits not yet credited and unpresented cheques.
5 **Explain** what action the business should take if a cheque from one of its customers is dishonoured.

7.5 THE BANK RECONCILIATION PROCESS

The process for conducting a bank reconciliation – and comparing the bank statement and the firm's cash journals – involves four steps:

1 Compare cash receipts
2 Compare cash payments
3 Update the firm's cash journals
4 Prepare a Bank Reconciliation Statement.

Let's examine each step in detail.

1 Compare cash receipts

Check the Bank column of the Cash Receipts Journal against the *Credit* column in the bank statement. *Tick* the items that appear in both records; *circle* those that appear in only one.

2 Compare cash payments

Check the Bank column of the Cash Payments Journal against the *Debit* column in the bank statement. *Tick* the items that appear in both records; circle those that appear in only one. These comparisons are designed to verify that the journals show all the cash transactions present in the bank statement, and vice versa. If a transaction appears in only one record, it will cause the cash journals and the bank statement to show a different bank balance.

3 Update the cash journals

Items which are circled in the bank statement are not yet recorded in the firm's records because the firm did not know about them until it received the bank statement. These circled items must be added to the cash journals so that the firm's records are complete.

- Items which are circled in the Credit column of the bank statement must be added to the Cash Receipts Journal.
- Items which are circled in the Debit column of the bank statement must be added to the Cash Payments Journal.

At this stage, the firm's cash records – its journals – should be complete, and the firm can calculate the bank balance according to its records.

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4 Prepare a Bank Reconciliation Statement

Items which are circled in the cash journals are not shown on the bank statement because the bank does not yet know about them. However, these circled items cannot just be added to the bottom of the bank statement: they must be reported in a Bank Reconciliation Statement.

- Items which are circled in the Cash Receipts Journal are reported as deposits not yet credited.
- Items which are circled in the Cash Payments Journal are reported as unpresented cheques.

The Bank Reconciliation Statement attempts to explain any differences between the bank balance determined in the firm's records and the bank balance reported on the bank statement.

REVIEW QUESTIONS 7.5

1 **List** the steps involved in the bank reconciliation process.
2 **Explain** the process to account for items that are circled in the:
   - credit column of the bank statement
   - debit column of the bank statement
   - Cash Receipts Journal
   - Cash Payments Journal.
3 **Explain** the function of a Bank Reconciliation Statement.

7.6 BANK RECONCILIATION EXAMPLE

As at 1 July 2016, Willow's Window Wash had $4830 cash in its bank account. Information relating to the firm's cash transactions has been provided below.

Cash Receipts Journal

Date 2010	Details	Rec. No.	Bank	Fees	Sundries	GST
July 1	Cash Fees	771	1 320✓	1 200		120
12	Cash Fees	772	1 100✓	1 000		100
24	Interest on Term Deposit	773	850✓		850	
29	Cash Fees	774	1 430	1 300		130

Cash Payments Journal

Date 2016	Details	Chq. No.	Bank	Supplies	Drawings	Wages	Sundries	GST
July 1	Drawings	501	1 000✓		1 000			
5	Detergents	502	220✓	200				20
11	New Equipment	503	1 100				1 000	100
13	Wages	504	1 450✓			1 450		
15	Prepaid Insurance	505	3 960✓				3 600	360
18	Advertising	506	440✓				400	40
28	Cleaning Supplies	507	880	800				80

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Argus Bank of Australia AC No. 43 63 89

A/C holder: Willow's Window Wash
123 Tree Way
Gumsville 3243

Date	Particulars	Debit	Credit	Balance
2016		$	$	$
July				
1	Balance forward			4 830 CR
2	501	1 000 ✓		3 830 CR
2	CSH/CHQS		1 320 ✓	5 150 CR
5	Service fee	15		5 135 CR
11	502	220 ✓		4 915 CR
13	CSH/CHQS		1 100 ✓	6 015 CR
15	504	1 450 ✓		4 565 CR
20	505	3 960 ✓		605 CR
25	CSH/CHQs		850 ✓	1 455 CR
28	506	440 ✓		1 015 CR
29	Transaction fee	10		1 005 CR
30	Interest		2	1 007 CR
TOTALS THIS PAGE		$7 095	$3 272	
Final Balance			**CREDIT**	**$1 007**

Steps 1 and 2: Compare cash receipts/cash payments

These steps have been completed, with items that appear in both records *ticked* in both records: these transactions have been verified and provide no cause for concern. However, some items have been circled, indicating that they appear in only one set of records. These items must be accounted for.

STUDY TIP

When checking payments it is essential to check not only the amount, but also the cheque number.

Step 3: Update the cash journals

The items circled in the bank statement are direct debits and credits the bank has made on the firm's behalf, receipts and payments that the business did not know about until it received the bank statement. In the credit column of the bank statement, the interest received on 30 July 2016 was circled, meaning the firm did not know about it. This item must be added to the Cash Receipts Journal as is shown in Figure 7.2.

Figure 7.2 ***Updated Cash Receipts Journal***

Cash Receipts Journal

Date 2016	Details	Rec. No.	Bank	Fees	Sundries	GST
July 1	Cash Fees	771	1 320 ✓	1 200		120
12	Cash Fees	772	1 100 ✓	1 000		100
24	Interest on Term Deposit	773	850 ✓		850	
29	Cash Fees	774	1 430	1 300		130
30	Interest Received	B/S	2		2	
	Totals		**4 702**	**3 500**	**852**	**350**

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In the debit column of the bank statement, the $15 service fee paid on 5 July 2016 and the $10 transaction fee paid on 29 July 2016 were circled, meaning the firm did not know about them. These items must be added to the Cash Payments Journal as is shown in Figure 7.3.

Figure 7.3 ***Updated Cash Payments Journal***

Cash Payments Journal

Date 2016	Details	Chq. No.	Bank	Supplies	Drawings	Wages	Sundries	GST
July 1	Drawings	501	1 000 ✓		1 000			
5	Detergents	502	220 ✓	200				20
11	New Equipment	503	1 100				1 000	100
13	Wages	504	1 450 ✓			1 450		
15	Prepaid Insurance	505	3 960 ✓				3 600	360
18	Advertising	506	440 ✓				400	40
28	Cleaning Supplies	507	880	800				80
30	Service Fee	B/S	15				15	
	Transaction Fee	B/S	10				10	
	TOTALS		**9 075**	**1 000**	**1 000**	**1 450**	**5 025**	**600**

At this point, the firm's cash journals show all the cash transactions so they can be totalled for the firm's bank balance to be calculated.

STUDY TIP

Include all the figures in each the total of each journal, even the ones that are circled.

Figure 7.4 ***Calculation of bank balance:***

	Cash receipts (from the Cash Receipts Journal)	$	4 702
Less	Cash payments (from the Cash Payments Journal)		9 075
	Cash surplus/(deficit)		(4 373)
	Opening Bank Balance		4 830
	Closing Bank Balance	**$**	**457**

Once updated, the records of the firm indicate that it has a positive bank balance of **$457** at the end of July. However, the bank statement at the same date states that the firm should have $1 007 in its account, so we must prepare a Bank Reconciliation Statement to explain this difference.

Step 4 Prepare a Bank Reconciliation Statement

The Bank Reconciliation Statement attempts to explain the difference between the balance shown in the bank statement (which in this case is $1 007), and the firm's records of **$457**. Given that the firm's cash journals have been updated and contain all the cash transactions, any difference should be caused by transactions the bank does not know about. These will include:

- the *deposits not yet credited* circled in the Cash Receipts Journal
- the *unpresented cheques* circled in the Cash Payments Journal.

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Figure 7.5 ***Bank Reconciliation Statement***

WILLOW'S WINDOW WASH

Bank Reconciliation Statement as at 31 July 2016

	Bank balance as per bank statement		$ 1 007	CR
Add	**Deposits not yet credited**		1 430	
			2 437	
Less	**Unpresented cheques**			
	# 503	1 100		
	# 507	880	1 980	
	Bank balance as per business records		**$ 457**	

If the Bank Reconciliation Statement balances (or reconciles), then all cash has been accounted for, and the owner will have an accurate and up-to-date assessment of the amount of cash available. However, if the two balances cannot be reconciled, it might indicate theft or fraud, which must be investigated.

STUDY TIP

Be sure to use the correct 'Balance as per Bank Statement': it should be the last balance on the bank statement.

7.7 BANK RECONCILIATION ISSUES

Dishonoured cheques

The general approach to updating the cash journals is to record items that are circled in the debit column of the bank statement in the Cash Payments Journal. However, a cheque which is dishonoured will appear in the debit column, but must be recorded as a *negative cash receipt*. Remember, a dishonoured cheque is originally recorded as a cash receipt; when the business discovers the cheque has been dishonoured, it must reverse that receipt.

EXAMPLE

On 21 January 2016, Tom'sTanning Studio received a cheque from Frank Glebe for $550 (including $50 GST) for tanning fees. Upon receiving the bank statement at the end of January, the business discovered that the cheque had been dishonoured.

The dishonoured cheque would be recorded in the Cash Receipts Journal as is shown in Figure 7.6.

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Figure 7.6 ***Recording a dishonoured cheque in the Cash Receipts Journal***

Cash Receipts Journal

Date 2016	Details	Rec. No.	Bank	Fees	Sundries	GST
Jan. 3	Tanning Fees	12	330	300		30
12	Capital Contribution	13	1 000		1 000	
21	Tanning Fees	14	550	500		50
29	Tanning Fees	15	440	400		40
	Dis. Chq. (F. Glebe)	B/S	(550)	(500)		(50)
	TOTALS		**1 770**	**700**	**1 000**	**70**

STUDY TIP

Dishonoured cheques may be identified on a bank statement by abbreviations such as 'Dis. Ch,' or 'Misc. Dr.' (meaning 'Miscellaneous debit').

Errors

Occasionally, the process of verifying the transactions recorded in the cash journals will uncover an error regarding an incorrect amount. Once it is established that the error has been made by the business (and not by the bank), the cash journals must be corrected.

EXAMPLE

Upon receiving the bank statement at the end of January, Tom's Tanning Studio discovered that a payment for wages, which it had recorded in the Cash Payments Journal as $230 was actually $320 (Chq. 153).

This error would be corrected in the Cash Payments Journal as is shown in Figure 7.7.

Figure 7.7 ***Correcting an error in the Cash Payments Journal***

Cash Payments Journal

Date 2016	Details	Chq. No.	Bank	Supplies	Drawings	Wages	Sundries	GST
Jan. 4	Drawings	152	500		500			
12	Wages	153	230			230		
19	Electricity	154	264				240	24
24	Supplies	155	220	200				20
30	Error – Chq. 153	B/S	90			90		
	TOTALS		**1 304**	**200**	**500**	**320**	**240**	**44**

Overdrafts

In the case of a bank overdraft, the format of the Bank Reconciliation Statement may be changed. When a business has an overdraft, unpresented cheques will actually increase that (negative) balance, whereas deposits not yet credited will decrease that (negative) balance, therefore the statement can be presented as is shown in Figure 7.8.

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Figure 7.8 ***Bank Reconciliation Statement – overdraft balance***

TOM'S TANNING STUDIO

Bank Reconciliation Statement as at 31 January 2016

	Bank balance as per bank statement		$ 750	DR
Add	**Unpresented cheques**			
	# 254	264	1 014	
Less	**Deposits not yet credited**		440	
	Bank balance as per business records		$ 574	OD

REVIEW QUESTIONS 7.6

1 **Identify** the column on the bank statement in which a dishonoured cheque would be recorded.
2 **Explain** how a dishonoured cheque is recorded in the cash journals.
3 **Explain** the effect on an overdraft balance of a:
- deposit not yet credited
- unpresented cheque.

7.8 BANK RECONCILIATION OVER CONSECUTIVE PERIODS

Items are reported in a Bank Reconciliation Statement when, at the end of the period, they have not yet appeared on the bank statement. However, they should appear on the bank statement in the *next* period, and so are the first items that should be identified in the next month's bank reconciliation process.

Specifically, we must check to see whether:

- the deposits not yet credited appear in the *credit* column of the new bank statement
- the unpresented cheques appear in the *debit* column of the new bank statement.

If a particular item appears on the bank statement, tick it off in both the Bank Reconciliation Statement and the bank statement. If it fails to appear on the bank statement again, it must be reported in the next Bank Reconciliation Statement (again as a deposit not yet credited or unpresented cheque), because the bank still does not know about it.

EXAMPLE

Willow's Window Wash provided the following information relating to its cash transactions for August 2016.

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WILLOW'S WINDOW WASH

Bank Reconciliation Statement as at 31 July 2016

	Bank balance as per bank statement		$1 007 CR
Add	**Deposits not yet credited**	1 430✓	2 437
Less	**Unpresented cheques**		
	# 503	1 100✓	
	# 507	880	1 980
	Bank balance as per business records		**$ 457**

Cash Receipts Journal

Date 2016	Details	Rec. No.	Bank	Fees	Sundries	GST
Aug. 5	Cash Fees	775	1 760✓	1 600		160
10	Capital Contribution	776	3 000✓		3 000	
24	Cash Fees	777	550✓	500		50
29	Cash Fees	778	1 980	1 800		180

Cash Payments Journal

Date 2016	Details	Chq. No.	Bank	Supplies	Drawings	Wages	Sundries	GST
Aug. 1	Drawings	508	1 590✓		1 590			
5	Advertising	509	1 760✓				1 600	160
15	Wages	510	1 800✓			1 800		
18	Registration	511	1 650✓				1 500	150
22	Detergents	512	330	300				30
28	Cleaning Supplies	513	1 870	1 700				170

STUDY TIP

Using the cheque number as a guide, is essential in this process.

Of the three items that were reported on the Bank Reconciliation Statement as at 31 July 2016, the $1 430 deposit not yet credited and unpresented cheque #503 (for $1 100) have now appeared on the bank statement. However, the other cheque which was unpresented at 31 July 2016 – Ch. #507 for $880 – has still *not* appeared. This cheque will be again be reported as unpresented, this time on the Bank Reconciliation Statement as at *31 August 2016* (i.e. the next month):

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Argus Bank of Australia AC No. 43 63 89

A/C holder: Willow's Window Wash
123 Tree Way
Gumsville 3243

Date	Particulars	Debit	Credit	Balance
2016				
August		$	$	$
1	Balance bought forward			1 007 CR
1	CSH/CHQs		1 430✓	2 437 CR
3	508	1 590✓		847 CR
4	503	1 100✓		253 CR
6	CSH/CHQs		1 760✓	1 507 CR
9	Service fee	17		1 490 CR
11	CSH/CHQs		3 000✓	4 490 CR
19	510	1 800✓		2 690 CR
25	CSH/CHQs		550✓	3 240 CR
26	509	1 760✓		1 480 CR
27	511	1 650✓		170 DR
28	Transaction fee	30		200 DR
29	Dishonoured cheque	550		750 DR
31	Direct Deposit – AMP		660	90 DR
TOTALS THIS PAGE		$8 497	$6 740	
Final Balance		**DEBIT**		**$ 90**

Figure 7.9 ***Bank Reconciliation Statement – consecutive periods***

WILLOW'S WINDOW WASH

Bank Reconciliation Statement as at 31 August 2016

	Bank balance as per bank statement		$90 DR
Add	**Unpresented cheques**		
	# 507	880	
	#512	330	
	#513	1 870	3 080
			3 170
Less	**Deposits not yet credited**		1 980
	Bank balance as per business records		**$(1 190)**

If a cheque remained unpresented for a long period of time, the business would normally contact the entity to whom they wrote the cheque to make sure that everything was all right and that the cheque was not misplaced or lost.

STUDY TIP

The previous Bank Reconciliation Statement is checked against the bank statement, not the cash journals.

REVIEW QUESTIONS 7.7

1. **Explain** the role of the previous month's Bank Reconciliation Statement in the bank reconciliation process.
2. **Explain** how items that fail to appear on consecutive bank statements should be accounted for in a bank reconciliation.

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WHERE HAVE WE BEEN?

- Internal control mechanisms protect assets from theft, damage and misuse; cash control mechanisms relate specifically to cash.
- Bank reconciliation is the process of verifying the entries in the firm's cash journals by comparing them against the transactions recorded on the bank statement.
- The bank statement and cash journals will not always show the same information because there may be some transactions the bank does not know about, and some the business does not know about.
- The four steps in the bank reconciliation are: compare cash receipts; compare cash payments; update the firm's cash journals; prepare a Bank Reconciliation Statement.
- Items circled on the bank statement will be added to the cash journals; items circled in the cash journals will be reported in a Bank Reconciliation Statement.
- A dishonoured cheque must be recorded as a negative cash receipt.
- Deposits not yet credited and unpresented cheques must be reported on the Bank Reconciliation Statement until they appear on the bank statement.

EXERCISES

EXERCISE 7.1
BANK RECONCILIATION

WB page 83

As at 1 August 2016, Pippa's Dog Wash had $1 235 cash in its bank account. The firm's cash journals and bank statement for August 2016 are provided below and right.

Cash Receipts Journal

Date	Details	Rec. No.	Bank	Washing	Clipping and Cuts	Sundries	GST
Aug. 3	B. Bulldog	55	**110**	100			10
6	K. Kelpy	56	**220**		200		20
9	P. Poodle	57	**242**	220			22
18	C. Collie	58	**330**		300		30
	B. Basset	59	**275**	250			25
27	Capital Contribution	60	**1 000**			1 000	
31	L. Labrador	61	**385**	350			35

Cash Payments Journal

Date	Details	Chq. No.	Bank	Cleaning Supplies	Drawings	Sundries	GST
Aug. 1	Cleaning Supplies	312	**220**	200			20
4	Wages	313	**800**			800	
12	Drawings	314	**500**		500		
15	Registration	315	**440**			400	40
19	Advertising	316	**396**			360	36
22	Cleaning Supplies	317	**165**	150			15
28	Drawings	318	**500**		500		
29	Insurance	319	**462**			420	42

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Bendigo Bank
Upper Beaconsfield Branch

A/c holder *Pippa's Dog Wash* **a/c: 028474584**
12 Berwick Rd Packenham, VICTORIA 3199

Date	Particulars	Debit	Credit	Balance
August 1	Balance b/fwd			1 235 CR
4	Cash/Cheques		110	1 345 CR
5	312	220		1 125 CR
	Interest		20	1 145 CR
7	Cash/Cheques		220	1 365 CR
9	313	800		565 CR
10	Cash/Cheques		242	807 CR
17	315	440		367 CR
19	Cash/Cheques		605	972 CR
20	314	500		472 CR
28	316	396		76 CR
29	Cash/Cheques		1 000	1 076 CR
	317	165		911 CR
30	Transaction fee	15		896 CR
	Closing balance			**896 CR**

Required

* a **Update** the cash journals of Pippa's Dog Wash. **Total** the cash journals.
* b **Calculate** the bank balance in the records of Pippa's Dog Wash as at 31 August 2016.

c **Explain** the purpose of preparing a Bank Reconciliation Statement.

* d **Prepare** a Bank Reconciliation Statement for Pippa's Dog Wash as at 31 August 2016.

EXERCISE 7.2

BANK RECONCILIATION: DISHONOURED CHEQUE

WB page 85

Smooth Lawn Services is owned and operated by Terry Hopgood who has provided the following information related to the firm's cash transactions for February 2016.

SMOOTH LAWN SERVICES

Receipts and Payments (totals only) for February 2016

	Cash receipts	4 400
Less	Cash payments	3 350
	Surplus (Deficit)	1 050
Add	Balance as at 1 February 2016	200
	Balance as at 28 February 2016	$1 250

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Cash Receipts Journal

Date	Details	Rec. No.	Bank	Mowing Fees	Sundries	GST
Mar. 1	G. Cole	55	**990**	900		90
6	A. Biddiscombe	56	**275**	250		25
	M.Walker	57	**187**	170		17
13	A. Micari	58	**550**	500		50
18	D. Cope	59	**308**	280		28
25	Capital Contribution	60	**2 000**		2 000	
31	C. Brooke	61	**165**	150		15

Cash Payments Journal

Date	Details	Chq. No.	Bank	Wages	Drawings	Sundries	GST
Mar. 1	Advertising	340	**165**			150	15
2	Wages	341	**300**	300			
4	Drawings	342	**375**		375		
12	Wages	343	**120**	120			
15	Tools	344	**275**			250	25
18	Drawings	345	**360**		360		
21	Wages	346	**180**	180			
27	Rent	347	**220**			200	20

Bank of Ballarat

Yallambie Branch

A/c holder *Smooth Lawn Services*
Yallambie VICTORIA 3058 a/c: 867 5 309

Date	Particulars	Debit	Credit	Balance	
March 1	Balance b/fwd			1 250	CR
	Cash/Cheques		990	2 240	CR
2	341	300		1 940	CR
4	342	375		1 565	CR
6	Cash/Cheques		462	2 027	CR
13	Cash/Cheques		550	2 577	CR
17	344	275		2 302	CR
18	Cash/Cheques		308	2 610	CR
18	345	360		2 250	CR
20	Interest		25	2 275	CR
20	340	165		2 110	CR
21	346	180		1 930	CR
25	Cash		2 000	3 930	CR
28	Dishonoured cheque	550		3 380	CR
31	Bank charges	10		3 370	CR

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Required

- **a** Using an example from the information provided, **explain** the term 'direct credit'.
- ⋆ **b** **Update** and **total** the cash journals of Smooth Lawn Services.
- ⋆ **c** **Calculate** the bank balance in the records of Smooth Lawn Services as at 31 March 2016.
- ⋆ **d** **Prepare** a Bank Reconciliation Statement for Smooth Lawn Services as at 31 March 2016.

EXERCISE 7.3

BANK RECONCILIATION: DISHONOURED CHEQUE

WB page 87

Nick Anderson operates a watch and jewellery repair shop in Avondale Heights called Nick of Time. Extracts from the cash journals of the business for September 2016 showed the following.

Cash Receipts Journal

Date	Details	Rec. No.	Bank	Repair Fees	Sundries	GST
Sept. 2016	Totals to date		3300	2200	800	300

Cash Payments Journal

Date	Details	Chq. No.	Bank	Wages	Drawings	Sundries	GST
Sept. 2016	Totals to date		3950	970	2300	530	150

Additional information:

- Nick's cash records revealed that his bank balance as at 1 September 2016 was $200.
- Nick's most recent bank statement was issued on 30 September 2016 and it revealed that his bank balance was $50 CR.
- After comparing the Cash Receipts Journal and the Cash Payments Journal with the bank statement, it was found that the following items appeared in only one set of records:
  - — The bank has charged $20 for transaction fees.
  - — A deposit of $110 in the cash receipts journal placed into the deposit drop box of the bank late in the day on 30 September 2016 does not appear on the bank statement.
  - — The bank has directly credited the bank account of Nick of Time with $120, representing interest received on a term deposit.
  - — Cheques written in September 2016 that did not appear on the bank statement:

Cheque No.	146	$ 25
	149	130
	153	600

  - — C. Campbell paid $220 (including $20 GST) to Nick for Repair Fees but the cheque has been dishonoured.
  - — Interest on overdraft charged by the bank for the month totals $25.

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Required

* **a** **Complete** the cash journals for September 2016.
* **b** **Calculate** the bank balance in the books of Nick of Time as at 30 September 2016.
* **c** **Prepare** a Bank Reconciliation Statement for Nick of Time as at 30 September 2016.
d Other than preparing a Bank Reconciliation Statement, **identify** two cash control procedures that Nick should adopt.

EXERCISE 7.4
BANK RECONCILIATION: OVERDRAFT, DISHONOURED CHEQUE

WB page 89

On 1 November 2016, the records of Pulsating Pecs Gym showed a positive bank balance of $2 010. The firm's cash journals for November 2016 (prior to receiving the bank statement) were totalled as follows:

- Cash Receipts Journal $27 400
- Cash Payments Journal 29 500

The bank statement for November 2016 showed that at 30 November 2016, the gym had a balance of $4 435 DR, and revealed the following:

- Cheque #8751 for $2 300, and cheque #8763 for $615, had not been presented.
- A cheque from A. Weid for $484 (including $44 GST) had been debited on the bank statement, because it had been dishonoured.
- Interest of $245 had been credited in the bank statement.
- $6 970 banked on 29 November 2016 did not appear on the bank statement.
- Cheque #8778 for $78 had been wrongly entered in the Cash Payments Journal as $87.
- Bank fees and charges amounting to $50 were debited in the bank statement.

Required

* **a** **Calculate** the bank balance according to the cash records of Pulsating Pecs Gym as at 30 November 2016.
* **b** **Prepare** a Bank Reconciliation Statement for Pulsating Pecs Gym as at 30 November 2016.
c **Explain** how the dishonoured cheque should be recorded in the cash journals of Pulsating Pecs Gym.

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EXERCISE 7.5

page 90

BANK RECONCILIATION: CONSECUTIVE PERIODS

Bob Scott owns and manages B & M Cleaning Services, a firm that cleans private homes and small offices, and has provided the following information related to the firm's cash transactions for June 2016.

B & M CLEANING

Bank Reconciliation Statement as at 31 May 2016

	Bank balance as per bank statement		$ 3 200	CR
Add	**Deposits not yet credited**	420	3 620	
Less	**Unpresented cheques**			
	# 205	130		
	# 209	100	230	
	Bank balance as per business records		**$ 3 390**	

Cash Receipts Journal

Date	Details	Rec. No.	Bank	House Cleaning	Office Cleaning	Sundries	GST
June 5	A. Castle	36	**220**	200			20
8	EJ Accountants	37	**330**		300		30
14	L. Christmas	38	**242**	220			22
20	J. Roberts	39	**220**	200			20
	R.Wyte & Assoc.	40	**440**		400		40
27	Capital Contribution	41	**5 000**			5 000	
30	L. Martin	42	**308**	280			28

Cash Payments Journal

Date	Details	Chq. No.	Bank	Cleaning Supplies	Drawings	Sundries	GST
June 1	Cleaning Supplies	213	**132**	120			12
4	Wages	214	**1 500**			1 500	
12	Drawings	215	**350**		350		
15	Equipment	216	**1 320**			1 200	120
19	Advertising	217	**220**			200	20
22	Cleaning Supplies	218	**198**	180			18
26	Drawings	219	**350**		350		
29	Insurance	220	**385**			350	35

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Bank of Karingal
Ashleigh Avenue Branch

A/c holder *B & M Cleaning*
12 Boona Dve, Frankston, 3199
a/c: 861 3 650 114

Date	Particulars	Debit	Credit	Balance	
June 1	Balance b/fwd			3 200	CR
1	213	132		3 068	CR
2	Cash/Cheques		420	3 488	CR
5	214	1 500		1988	CR
6	Cash/Cheques		220	2 208	CR
9	209	100		2 108	CR
10	Cash/Cheques		330	2 438	CR
15	Cash/Cheques		242	2 680	CR
15	215	350		2 330	CR
16	216	1 320		1 010	CR
18	Loan repayment	1 000		10	CR
22	Cash/Cheques		660	670	CR
25	218	198		472	CR
28	219	350		122	DR
29	Cash/Cheques		5 000	5 122	CR
30	Interest		20	5 142	CR
	Closing balance			**5 142**	**CR**

Required

a **Explain** how a petty cash system could improve the cash management procedures of B & M Cleaning.

⋆ **b** **Complete** the cash journals of B & M Cleaning.

⋆ **c** **Calculate** the bank balance in the records of B & M Cleaning as at 30 June 2016.

⋆ **d** **Prepare** a Bank Reconciliation Statement for B & M Cleaning as at 30 June 2016.

EXERCISE 7.6
BANK RECONCILIATION: CONSECUTIVE PERIODS

WB page 92

The following information is provided by the owner of Blooming Florist, a business that hires fake flowers for the beautification of reception areas to major companies.

BLOOMING FLORIST

Bank Reconciliation Statement as at 31 October 2016

	Bank balance as per bank statement		$ 9 380	CR
Add	**Deposits not yet credited**	2 720	12 100	
Less	**Unpresented cheques**			
	# 10731	13 610		
	# 10737	90		
	# 10743	1 400	15 100	
	Bank balance as per business records		**$ (3 000)**	

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Cash Receipts Journal

Date	Details	Rec. No.	Bank	Hire Fees	Sundries	GST
Nov. 1	Cash Fees	888–922	**3 300**	3 000		300
8	Cash Fees	923–990	**4 840**	4 400		440
12	Cash Fees	991–1032	**4 070**	3 700		370
22	Cash Fees	1033–1078	**2 310**	2 100		210

Cash Payments Journal

Date	Details	Chq. No.	Bank	Transport	Drawings	Wages	Sundries	GST
Nov. 4	Wages	10744	**720**			720		
5	Registration	10745	**3 960**	3 600				360
12	Office Furniture	10746	**1 650**				1 500	150
18	Petrol	10747	**180**	180				
22	Drawings	10748	**1 350**		1 350			
28	Prepaid Insurance	10749	**2 640**	2 400				240

SOUTH BANK
BANK STATEMENT

Blooming Florists
PO BOX 6943
Paganin 5678

Branch No. 473 0264
Chq Ac No. 753 0285

Page No. 18

Date	Particulars	Debit	Credit	Balance	
Nov. 2010		$	$	$	
1	Balance brought forward			9 380	CR
	Cash/Cheques		3 300	12 680	CR
4	10731	13 610		930	DR
8	10744	720		1 650	DR
9	Cash/Cheques		4 840	3 190	CR
13	Cash/Cheques		4 070	7 260	CR
18	10746	1 650		5 610	CR
21	10743	1 400		4 210	CR
23	Cash/Cheques		2 310	6 520	CR
25	10748	1 350		5 170	CR
29	10745	3 960		1 210	CR
30	Service fee	40		1 170	CR
	Arthur Andersen		1 100	2 270	CR

Note: Arthur Andersen paid for hire fees via direct credit.

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Required

* **a** **Complete** the cash journals of Blooming Florist as at 30 November 2016.
* **b** **Calculate** the bank balance according to the cash records of Blooming Florist as at 30 November 2016.
* **c** **Prepare** a Bank Reconciliation Statement for Blooming Florist at 30 November 2016.

d **Explain** one reason why the owner should investigate the $2 720 deposit not yet credited.

EXERCISE 7.7
BANK RECONCILIATION: CONSECUTIVE PERIODS, DISHONOURED CHEQUE

WB page 94

Major Mechanicals is an automotive repair business owned and operated by Gillian Major. Gillian has provided the following information related to the firm's cash transactions for December 2016.

MAJOR MECHANICALS

Bank Reconciliation Statement as at 30 November 2016

	Bank balance as per bank statement		$ 400 DR
Add	**Unpresented cheques**		
	# 128	200	
	# 131	150	350
			750
Less	**Deposits not yet credited**		200
	Bank balance as per business records		**$ (550)**

Cash Receipts Journal

Date	Details	Rec. No.	Bank	Fees	Sundries	GST
Dec. 5	B. Howell	12	**495**	450		45
	Capital – Jacobs	13	**500**		500	
9	J. Murachana	14	**110**	100		10
14	A. Felix	15	**550**	500		50
19	M. Jonas	16	**825**	750		75
23	B. Howell	17	**330**	300		30
30	F. Richards	18	**880**	800		80

Cash Payments Journal

Date	Details	Chq. No.	Bank	Wages	Drawings	Sundries	GST
Dec. 1	Wages	133	**250**	250			
4	Electricity	134	**330**			300	30
12	Tools	135	**440**			400	40
15	Wages	136	**240**	240			
18	Rent	137	**660**			600	60
21	Drawings	138	**170**		170		
27	Advertising	139	**385**			350	35

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Bank of Suburbia
Collingwood Branch

A/c holder *Major Mechanicals a/c: 345 9 876 001*
95 Smith St
Collingwood, Victoria

Date	Particulars	Debit	Credit	Balance
Dec. 1	Balance b/fwd			400 DR
	Cash/Cheques		200	200 DR
3	133	250		450 DR
	128	200		650 DR
5	Cash/Cheques		995	345 CR
9	134	330		15 CR
	Cash/Cheques		110	125 CR
14	Cash/Cheques		550	675 CR
15	136	240		435 CR
18	135	440		5 DR
19	Cash/Cheques		825	820 CR
20	Loan repayment	700		120 CR
21	138	170		50 DR
23	Cash/Cheques		330	280 CR
27	Dishonoured cheque	330		50 DR
30	Interest		75	25 CR
	Closing balance			**25 CR**

Required

a **State** the purpose of preparing a Bank Reconciliation Statement.

* b **Complete** the cash journals of Major Mechanicals for December 2016.

c Referring to one Qualitative Characteristic, **explain** why the firm's records must be updated before the preparation of the Statement of Receipts and Payments.

* d **Calculate** the bank balance in the cash records of Major Mechanicals as at 31 December 2016.

* e **Prepare** a Bank Reconciliation Statement for Major Mechanicals as at 31 December 2016.

EXERCISE 7.8

WB page 96

BANK RECONCILIATION: CONSECUTIVE PERIODS, ERROR

Fatima Hadj is one of three partners who operate a law firm called Hadj, Boulad and Brown. As the most financially literate of the three, Fatima performs most bookkeeping functions. She records the firm's cash transactions in a Cash Receipts Journal and a Cash Payments Journal, and is responsible for collecting and banking all cash received. Cash Fees are banked at the end of each week, and Bank Reconciliation Statements are prepared monthly. Fatima has supplied the following information from the firm's accounting records for March 2016.

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HADJ, BOULAD AND BROWN

Bank Reconciliation Statement as at 28 February 2016

	Bank balance as per bank statement		$ 150 DR
Add	**Unpresented cheques**		
	# 153	130	
	# 155	90	220
			370
Less	**Deposits not yet credited**		500
	Bank balance as per business records		**$ 130**

At the end of March 2016, the cash journals showed the following totals:

- Cash Receipts Journal $ 4 180
- Cash Payments Journal 3 940

On 31 March 2016, the Bank Statement of Hadj, Boulad and Brown showed a closing balance of $490 CR. After comparing the cash journals with the bank statement, the following discrepancies were found:

- The $500 deposit not yet credited as at 28 February 2016 appeared on the bank statement, as did Cheque #155. Cheque #153 did not appear on the bank statement.
- $30 interest appeared in the credit column of the bank statement, but not in the cash journals.
- A deposit of $300 (recorded in the cash receipts journal on 31 March 2016) did not appear on the bank statement.
- Cheque #158 was recorded in the Cash Payments Journal as $170, but appeared on the bank statement as $120. Fatima has checked and the bank statement figure is correct.

Two cheques written in March did not appear on the bank statement:

Cheque	#161	$70
	162	140

Required

a **Identify** one positive aspect and one negative aspect of the cash control procedures implemented by Hadj, Boulad and Brown.

b **Explain** why the Bank Reconciliation Statement has added the unpresented cheques to the bank balance as per bank statement.

c **Suggest** one reason why the bank statement does not show the deposit of $300 made on 31 March 2016.

* **d** **Calculate** the bank balance in the records of Hadj, Boulad and Brown as at 31 March 2016.

* **e** **Prepare** a Bank Reconciliation Statement for Hadj, Boulad and Brown as at 31 March 2016.

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EXERCISE 7.9

WB page 97

BANK RECONCILIATION: CONSECUTIVE PERIODS, DISHONOURED CHEQUE, OVERDRAFT

Con Stephanopoulos is a freelance architect operating under the business name of Con-Structions. The Bank Reconciliation Statement for Con-Structions as at 31 March 2016 showed the following.

CON-STRUCTIONS

Bank Reconciliation Statement as at 31 March 2016

	Bank balance as per bank statement		$ 2 010	CR
Add	**Deposits not yet credited**	500	2 510	
Less	**Unpresented cheques**			
	# 152	190		
	# 155	250		
	# 159	150	590	
	Bank balance as per business records		**$ 1 920**	

The cash journals of Con-Structions showed the following for April 2016:

- cash receipts (total) $ 2 925
- cash payments (total) 3 500

On 4 May 2016, Con received a bank statement for April 2016 which showed a closing balance of $500 DR. Upon checking the bank statement against his cash journals for April, Con discovered the following differences:

- The $500 deposit which was uncredited as at 31 March 2016 appeared on the bank statement.
- Of the cheques unpresented as at 31 March 2016, the following now appeared on the bank statement:

Cheque	#155	$250
	159	150

- A direct debit of $350 referred to a loan instalment.
- Two cheques which were listed in the Cash Payments Journal did not appear on the bank statement:

Cheque	#164	$490
	183	125

- A cheque Con received from a customer (worth $250 plus $25 GST) had been returned.
- A $2 010 deposit made on 29 April 2016 was not shown on the bank statement.
- Bank charges amounted to $15.

Required

a **Explain** why cheque #159 is listed as 'unpresented'.

b **Outline** two methods of cash control other than the preparation of a Bank Reconciliation Statement.

* c **Calculate** the bank balance in the records of Con-Structions as at 30 April 2016.

d **Explain** what action Con should take with regard to the 'returned' cheque.

* e **Prepare** a Bank Reconciliation Statement for Con-Structions as at 30 April 2016.

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EXERCISE 7.10
BANK RECONCILIATION

WB page 99

Karl Fixit operates as a mechanic at a local service station and has supplied the following information from the firm's accounting records for May 2016.

FIXIT REPAIRS

Bank Reconciliation Statement as at 31 May 2016

	Bank balance as per bank statement		$ 270	CR
Add	**Deposits not yet credited**	800	1 070	
Less	**Unpresented cheques**			
	# 107	290		
	# 111	750		
	# 115	360	1 400	
	Bank balance as per business records		**$ (330)**	

Extracts from the cash journals for June 2016 showed the following:

Cash Receipts Journal

Date	Details	Rec. No.	Bank	Repair fees	Sundries	GST
June 2010	Totals to Date		**4 120**	3 400	350	370

Cash Payments Journal

Date	Details	Chq. No.	Bank	Parts	Wages	Sundries	GST
June 2010	Totals to Date		**3 815**	1 030	2 150	515	120

Fixit Repairs' most recent bank statement was issued on 30 June 2016 and it revealed a bank balance of $405 DR.

After comparing the Cash Receipts Journal and the Cash Payments Journal with the bank statement, it was found that the following items appeared in only one set of records:

- The $800 deposit not yet credited as at 31 May 2016 appeared on the bank statement, as did cheques #107 and #115.
- A deposit of $825 deposited at the bank late in the day on 30 June 2016 does not appear on the bank statement.
- The bank has directly debited the bank account with $550 representing a payment on a loan.
- Cheques written in June 2016 that did not appear on the Bank Statement:

Cheque	#137	$ 325
	143	240

- A customer paid $385 for Repair Fees but the cheque has been dishonoured.
- A deposit was recorded in the Cash Receipts Journal as $440, but appeared on the bank statement as $550. Karl has determined that the bank statement is correct.
- Interest on overdraft for the month totalled $45.

Required

* **a** **Complete** the cash journals for June 2016.

* **b** **Calculate** the bank balance according to the books of Fixit Repairs as at 30 June 2016.

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* **c** **Prepare** a Bank Reconciliation Statement for Fixit Repairs as at 30 June 2016.

d **Define** the term 'dishonoured cheque'. **State** one reason why it appears on the debit side of the bank statement.

EXERCISE 7.11
BANK RECONCILIATION

W B page 101

Alex Sensor runs his own carpentry business, and has presented the following information regarding the firm's cash transactions for October 2016.

SENSOR CARPENTRY

Bank Reconciliation Statement as at 30 September 2016

	Bank balance as per bank statement		$ 605 DR
Add	**Deposits not yet credited**	1 005	400
Less	**Unpresented cheques**		
	# 116	125	
	# 123	50	
	# 124	105	280
	Bank balance as per business records		**$ 120**

Cash Receipts Journal

Date	Details	Rec. No.	Bank	Repair fees	Sundries	GST
Oct. 2	Cash Fees	81	**330**	300		30
5	Capital Contribution	82	**500**		500	
10	Cash Fees	83	**165**	150		15
11	Commission	84	**50**		50	
16	Cash Fees	85	**330**	300		30
	Cash Fees	86	**220**	200		20
21	Cash Fees	87	**440**	400		40
24	Cash Fees	88	**110**	100		10
28	Cash Fees	89	**187**	170		17
30	Cash Fees	90	**154**	140		14

Cash Payments Journal

Date	Details	Chq. No.	Bank	Supplies	Rent	Wages	Sundries	GST
Oct. 2	Cash Purchases	127	99	90				9
4	Rent	128	143		130			13
8	Drawings	129	500				500	
11	Cash Purchases	130	550	500				50
17	Wages	131	340			340		
20	Cash Purchases	132	528	480				48
21	Insurance	133	385				350	35
26	Cash Purchases	134	77	70				7
29	Rent	135	121		110			11
30	Drawings	136	110				110	

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The Bank of Victoria
Victoria Park Branch

AC No. 112525

NAME **Sensor Carpentry**
29 Termite Road, Collingwood 3066

Date	Particulars	Debit	Credit	Balance	
2010					
30 SEPT.	Balance forward			605	DR
1 OCT.	CSH		1 005	400	CR
3 OCT.	CSH		330	730	CR
4 OCT.	116	125		605	CR
4 OCT.	DEP – Interest		135	740	CR
6 OCT.	CHQ		500	1 240	CR
7 OCT.	123	50		1 190	CR
9 OCT.	128	143		1 047	CR
10 OCT.	CSH		165	1 212	CR
11 OCT.	CSH		50	1 262	CR
13 OCT.	129	500		762	CR
13 OCT.	Service fee	6		756	CR
16 OCT.	CSH		550	1 306	CR
18 OCT.	131	430		876	CR
18 OCT.	VT Finance	75		801	CR
20 OCT.	130	550		251	CR
21 OCT.	CSH		440	691	CR
24 OCT.	CHQ		110	801	CR
26 OCT.	Dis. Chq.	110		691	CR
26 OCT.	132	528		163	CR
27 OCT.	134	77		86	CR
29 OCT.	CSH		187	273	CR
30 OCT.	133	385		112	DR

Required

a **Explain** one error in the way the Bank Reconciliation Statement is presented as at 30 September 2016.

* **b** **Complete** the cash journals for October 2016.

* **c** **Calculate** the bank balance according to the records of Sensor Carpentry as at 31 October 2016.

d **Prepare** a Bank Reconciliation Statement for Sensor Carpentry as at 31 October 2016.

EXERCISE 7.12
BANK RECONCILIATION

WB page 104

John Launat operates as a courier driver in the northern suburbs for Nearly There Deliveries. He pays for the use of a local garage to park his limousine and employs an assistant. Receipts are issued for all jobs but John sometimes uses cash from the register to pay for urgent expenses. His assistant is responsible for emptying the register and taking the daily takings to the bank. This is done at 4 p.m. every day. John has supplied the following information from the firm's accounting records.

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NEARLY THERE DELIVERIES

Bank Reconciliation Statement as at 31 May 2016

	Bank balance as per bank statement		$ 250 CR
Add	**Deposits not yet credited**	950	1 200
Less	**Unpresented cheques**		
	# 232	460	
	# 248	740	
	# 254	355	1 555
	Bank balance as per business records		**$ (355)**

Extracts from the cash journals for June 2016:

Cash Receipts Journal

Date	Details	Rec. No.	Bank	Courier Fees	Sundries	GST
June 2016	Totals to Date		3 325	2 700	355	270

Cash Payments Journal

Date	Details	Chq. No.	Bank	Petrol	Wages	Sundries	GST
June 2016	Totals to Date		3 560	1 200	1 880	360	120

The most recent bank statement for Nearly There Deliveries was issued on 30 June 2016. It showed a bank balance of $425 DR.

After comparing the Cash Receipts Journal and the Cash Payments Journal with the bank statement, it was found that the following items appeared in only one set of records:

- The $950 deposit not yet credited as at 31 May 2016 appeared on the bank statement, as did cheques #248 and #254.
- Interest on overdraft charged by the bank for the month totalled $65.
- Cheques written in June 2016 that did not appear on the bank statement:

Cheque	#263	$ 290
	270	565

- A payment for wages was recorded in the Cash Payments Journal as $130, but appeared on the bank statement as $110. John determined that the bank statement figure was correct.
- A deposit of $610 in the Cash Receipts Journal deposited at the bank late in the day on 30 June 2016 did not appear on the bank statement.
- During June, a customer paid $495 (including $45 GST) for courier fees but the cheque has been dishonoured.

Required

a Other than bank reconciliation, **identify** one positive aspect and one negative aspect of the cash control procedures that John has implemented.

b **Explain** the difference between a 'deficit' and an 'overdraft'.

* **c** **Complete** the cash journals for June 2016.

* **d** **Calculate** the bank balance according to the records of Nearly There Deliveries as at 30 June 2016.

* **e** **Prepare** a Bank Reconciliation Statement for Nearly There Deliveries as at 30 June 2016.

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Where are we headed?

After completing this chapter, you should be able to:

- **identify** and **define** revenues and expenses
- **calculate** Net Profit or Loss
- **prepare** an Income Statement
- **report** a Net Profit or Loss in the Balance Sheet
- **distinguish** between cash and profit
- **explain** the uses of an Income Statement.

CHAPTER 8

INCOME STATEMENT

KEY TERMS

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

- revenue
- expense
- Income Statement
- Net Profit
- Net Loss.

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8.1 CALCULATING PROFIT

The most basic function of any small business is to earn a profit for the owner, so from time to time the owner must calculate whether a *profit* or *loss* has been generated.

Basically, profit is the net increase in the owner's equity as a result of the firm's operations. It is calculated by measuring the firm's revenue (what it has earned from its customers for performing a service) and deducting from this its expenses (what it has cost the business to provide those services). Thus the calculation of profit is simple enough – profit is what is left over after expenses are deducted from revenues. That is:

Profit = Revenues – Expenses

However, not all the cash the business receives is as a result of its trading activities, and therefore not all of it is revenue. The same applies to cash payments: not all cash payments are expenses. In fact, the definitions of revenues and expenses are quite specific.

Revenue

Revenue
an inflow of an economic benefit (or saving in an outflow) in the form of an increase in assets (or decrease in liabilities) that increases owner's equity (except for capital contributions)

Revenue is defined as an inflow of an economic benefit (or saving in an outflow of an economic benefit) in the form of an increase in assets or reduction in liabilities that leads to an increase in owner's equity (except for a capital contribution).

Let's break this definition into its components as we did for the definitions of assets and liabilities. A revenue must be:

- *an inflow of an economic benefit (or saving in an outflow)*

Note that rather than specifying *cash*, the definition refers to *economic benefits* that come into the firm. Revenue for a service firm will usually be cash, but it does not have to be; the economic benefit could be in the form of a debtor (if services are provided on credit), or even stock (for a stock gain).

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- *an increase in assets (or decrease in liabilities)*

If a service is performed for cash, then the asset which increases will be Bank, but there could be other assets received from earning revenue, like Debtors.

- *an increase in owner's equity (except for capital contributions)*

Revenue must increase what the business owes to the owner, but it cannot be as a result of a capital contribution, as this is not a result of the firm's operations.

Revenue then represents the increase in owner's equity that occurs through business activities, and in most cases will be what the business has *earned* from the services that it has provided to its customers. The key here is that a revenue must increase owner's equity, but not as a consequence of the owner making a contribution.

STUDY TIP

If an item does not fit all parts of the definition, it is not revenue.

Expenses

An **expense** is defined as an outflow or consumption of an economic benefit (or reduction in an inflow of an economic benefit) in the form of a decrease in assets or increase in liabilities that leads to a decrease in owner's equity (except for Drawings).

Expense
an outflow or consumption of an economic benefit (or reduction in an inflow) in the form of a decrease in assets (or increase in liabilities) that reduces owner's equity (except for Drawings)

Therefore, an expense must be:

- *an outflow or consumption of an economic benefit (or reduction in an inflow)*

  Whereas assets refer to *future* economic benefits – benefits the business still has – expenses refer to benefits that have been *consumed* (or used up), and are thus gone. For instance, there is no lasting benefit from paying wages – if the owner wants the employee to work again next week, another payment will be required. However, expenses need not involve a cash payment; any time the business consumes an economic benefit, an expense has been incurred.
- *a decrease in assets (or increase in liabilities)*

  If the expense is paid in cash, then the asset which decreases will be Bank, but an expense could also involve the consumption of stock.
- *a decrease in owner's equity (except for drawings)*

  Expenses decrease profit, and profit goes to the owner; therefore, expenses decrease owner's equity. However, expenses refer to what the *business has consumed* to earn revenue, not what the *owner has withdrawn* for personal purposes, so Drawings is excluded as an expense.

STUDY TIP

Compare the definitions of 'revenues' and 'expenses'– opposites definitely apply here.

Expenses then represent decreases in owner's equity that occur through business activities, or what a business has consumed to earn its revenue. 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.

The Reporting period and Relevance

The question of when to calculate profit depends on the needs of the owner. Remember, the Going Concern principle assumes that the life of the business is continuous or never-ending, so to follow this principle alone means that profit could never be determined! As a result, the owner would not have information about the performance of their firm until it was too late to do anything about it. This is why the Reporting Period principle is so important: it allows us to divide the life of the business into arbitrary periods in order to determine profit.

Note that the length of these reporting periods is arbitrary (or subjective) – it is up to owners to decide how often they want profit to be determined. Some owners will want profit calculated every month; others will be satisfied with seasonal or quarterly

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profit reports. In fact, the length of the reporting period can be as short or as long as the owner desires (although taxation requirements mean that the reporting period must be no longer than one year) and the length of the reporting period will determine how frequently profit is calculated.

Once the length of the reporting period is determined, it is important that the calculation of profit includes *only* revenues and expenses. This ensures *Relevance* in the reports by including only information that is useful for decision-making about profit. If we were to include items other than revenues and expenses (like Drawings or loan repayments), our reports would contain information that would *not* be useful for decision making, but would actually distort decision-making (and probably lead to negative consequences for the business and its owner).

REVIEW QUESTIONS 8.1

1. **Define** the following terms:
   - profit
   - revenue
   - expense.
2. **State** one reason why a capital contribution is excluded by the definition of revenue.
3. **State** one reason why Drawings is excluded by the definition of an expense.
4. **Explain** how the Reporting Period principle assists in the calculation of profit.
5. **Explain** how the Reporting Period principle leads to *Relevance* in accounting reports.

8.2 THE INCOME STATEMENT

Income Statement
an accounting report which details the revenues earned and expenses incurred during the reporting period

The information about profit or loss must be reported to the owner in a formal accounting report known as an **Income Statement**. For a business that deals only in cash transactions, the cash journals (or the Statement of Receipts and Payments which reports the information summarised in the cash journals) contain all the information necessary to prepare an Income Statement.

EXAMPLE

Nomi's Naturopathy has provided the following information relating to its trading activities for May 2016.

NOMI'S NATUROPATHY

Balance Sheet as at 30 April 2016

Current Assets	**$**	**$**	**Current Liabilities**	**$**	**$**
Bank	4 000		GST Payable	400	
Stock of Stationery	500	4 500	Mortgage	6 000	6 400
			Non-Current Liabilities		
			Mortgage		60 000
Non-Current Assets					
Equipment	12 000		**Owner's Equity**		
Premises	80 000	92 000	Capital – Nomi		30 100
Total Assets		**96 500**	**Total Equities**		**96 500**

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NOMI'S NATUROPATHY

Statement of Receipts and Payments for May 2016

	$	$
Cash Receipts		
Naturopathy Fees	6 000	
Capital Contribution	1 000	
Loan – INS Finance	2 000	
Interest on Bank Account	20	
GST Received	600	9 620
Less Cash Payments		
Wages	1 800	
Mortgage Repayment	500	
Electricity	400	
Office Furniture	3 000	
Interest on Mortgage	200	
GST Settlement	400	
Supplies	1 400	
GST Paid	440	
Drawings	2 000	10 140
Cash Surplus (Deficit)		**(520)**
Add Bank Balance at Start (1 May 2016)		**4 000**
Bank Balance at End (31 May 2016)		**3 480**

Additional information:

- All supplies were consumed during May 2016.
- The Loan – INS Finance is an interest-only loan payable 1 May 2018.

Identifying revenues

Some cash receipts are revenues, as the cash received represents an inflow of economic benefits, in the form of an increase in Bank:

- Naturopathy Fees is revenue received from providing a service.
- Interest on Bank Account is a by-product of the business operating a bank account.

Both items meet the definition of revenue as inflows of economic benefits (cash received) in the form of an increase in assets (Bank) which increase owner's equity.

However, even though they are all inflows of economic benefits, some Cash Receipts are not revenues:

- Capital Contribution is expressly excluded by the definition of revenue, as it is not earned *by the business*, but rather simply contributed *by the owner*.
- Loan – INS Finance is not revenue because it doesn't increase owner's equity; it increases assets (Bank), but also increases liabilities (Loan – INS Finance).
- GST Received is not revenue because it doesn't increase owner's equity either; it increases assets (Bank), but also increases liabilities (GST payable).

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With the exception of capital contribution, these cash receipts that are not revenue affect an element of the accounting equation *other than owner's equity*, and this effect must be reported separately on the Balance Sheet.

Identifying expenses

Some cash payments are expenses, as the cash paid represents an outflow of economic benefits, in the form of a decrease in Bank:

- Wages and Supplies are consumed in the process of providing naturopathy services.
- Electricity is consumed by using the business premises.
- Interest on Mortgage is incurred as a result of using a mortgage to purchase the business premises.

Each of these items meets the definition of an expense as they are outflows or consumptions of economic benefits (cash paid) that decrease assets (Bank) and result in a decrease in owner's equity.

However, even though they are all outflows of economic benefits, some cash payments are not expenses:

- Mortgage Repayment is not an expense because it doesn't decrease owner's equity; it decreases assets (Bank), but also decreases a liability (Mortgage).
- GST Settlement is not an expense because it doesn't decrease owner's equity; it decreases assets (Bank), but also decreases a liability (GST Payable).
- Office Equipment is not an expense because it doesn't decrease owner's equity, and it doesn't actually decrease assets either; it decreases a current asset (Bank) but increases a non-current asset (Office Equipment.) The office furniture is a *future* economic benefit rather than an *outflow* of an economic benefit.
- GST Paid is not an expense because it doesn't decrease owner's equity; it decreases assets (Bank), but also decreases a liability (GST payable).
- Drawings is excluded by the definition of an expense, as it is not consumed by the business to earn revenue, but withdrawn by the owner for personal use.

With the exception of Drawings, these cash payments that are not expenses affect an element of the accounting equation *other than owner's equity*, and this effect must be reported separately on the Balance Sheet.

The Income Statement for Nomi's Naturopathy for May 2016 is shown in Figure 8.1.

Figure 8.1 ***Income Statement***

NOMI'S NATUROPATHY

Income Statement for May 2016

		$	$
	Revenue		
	Naturopathy Fees	6 000	
	Interest on Bank Account	20	6 020
Less	**Expenses**		
	Wages	1 800	
	Electricity	400	
	Interest on Mortgage	200	
	Supplies	1 400	3 800
	Net Profit		**$ 2 220**

STUDY TIP

Note that the 'bottom line' is profit – the final result – hence the saying!

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Like all accounting reports, the title of the Income Statement states who the report is prepared for (Nomi's Naturopathy), *what* type of report it is (Income Statement), and *when* – the period to which it applies (May 2016.) Like the Statement of Receipts and Payments, the Income Statement reports transactions that have occurred not just on the one day, but over a period of time, so the report specifies for May 2016.

This report tells the owner that as a result of operating the naturopathy business, there was an increase in the owner's equity caused by a Net Profit of $2 220, which itself was the result of earning $6 020 in revenue, and consuming $3 800 worth of expenses in the process.

REVIEW QUESTIONS 8.2

1 **Explain** why the following items are excluded from an Income Statement:
   - capital contribution
   - purchase of a non-current asset
   - loan repayment
   - Drawings.

2 **Explain** why an Income Statement is titled for a particular period rather than as at a particular date.

8.3 CASH VERSUS PROFIT

The fact that not all cash receipts are revenues, and not all cash payments are expenses, means that it is possible for a business to earn a profit (with an attendant increase in owner's equity), and yet suffer a cash deficit (leading to a decrease in Bank.) The opposite can also be true, with a firm that incurs a loss (leading to a decrease in owner's equity) capable of generating a cash surplus (leading to an increase in Bank). This can be a confusing concept, but we must remember that a cash surplus (or deficit) and profit (or loss) do not measure the same thing.

- A *cash surplus (deficit)* measures the difference between cash receipts and cash payments.
- A *Net Profit (or Loss)* measures the difference between revenues and expenses.

Earning a Net Profit but suffering a cash deficit

Many business owners assume that earning a profit means that the business will have more cash on hand. However, this is not always the case. It is possible for a business to earn a Net Profit but still suffer a cash deficit due to:

- Drawings
- a loan repayment
- a cash purchase of a non-current asset
- a GST settlement.

These items will have no effect on Net Profit as they are not expenses. However, each is a cash payment, and as a consequence will decrease Bank. Therefore a business which earns a Net Profit could still find itself with less cash in the bank at the end of the period.

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STUDY TIP

The reason(s) for a difference between cash and profit will depend on the business itself; examine the firm's reports to identify which of these reasons applies.

Generating a cash surplus despite incurring a Net Loss

It is also possible for a business to incur a loss, and yet still see its bank balance increase, if it receives:

- a loan
- a capital contribution from the owner
- a GST refund.

These items will have no effect on Net Profit as they are not revenues. However, all are cash receipts, and will increase Bank.

GST

Aside from a GST settlement or GST refund, the GST a business receives from its customers and pays to its suppliers will also affect its cash position, but not its profit.

- *If GST received from customers is greater than GST paid to suppliers*, Bank will increase, and this may be one of the reasons why the business has more cash than profit.
- *If GST paid to suppliers is greater than GST received from customers*, Bank will decrease, and this may be one of the reasons why the business has less cash than profit.

REVIEW QUESTIONS 8.3

1 Citing four examples, **explain** how a business can earn a Net Profit and yet suffer a cash deficit.
2 Citing three examples, **explain** how a business can incur a Net Loss and yet generate a cash surplus.
3 **Explain** how GST received from customers and paid to suppliers can lead to:
   - more cash than profit
   - less cash than profit.

8.4 REPORTING A NET PROFIT OR LOSS IN THE BALANCE SHEET

As was noted earlier, the profit or loss the business earns affects owner's equity: a Net Profit represents a net increase in owner's equity, whereas a Net Loss represents a net decrease in owner's equity, both as a result of business operations. This must then be reported in the owner's equity section of the Balance Sheet. In fact, the Balance Sheet must show the initial capital balance, as well as any capital contribution, Net Profit or Loss, and Drawings to show how the capital at end was determined.

The Balance Sheet for Nomi's Naturopathy as at 31 May 2016 is shown in Figure 8.2.

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Figure 8.2 ***Reporting Net Profit in the Balance Sheet***

NOMI'S NATUROPATHY

Balance Sheet as at 31 May 2016

Current Assets	$	$	**Current Liabilities**	$	$
Bank[1]	3 480		GST Payable[4]	160	
Stock of Stationery[3]	500	3 980	Loan – INS Finance[5]	2 000	
			Mortgage[6]	6 000	8 160
Non-Current Assets			**Non-Current Liabilities**		
Office Furniture[2]	3 000		Mortgage[6]		59 500
Equipment[3]	12 000		**Owner's Equity**		
Premises[3]	80 000	95 000	Capital – Nomi[7]	31 100	
			Plus Net Profit[8]	2 220	
				33 320	
			Less Drawings[9]	2 000	31 320
Total Assets		**98 980**	**Total Equities**		**98 980**

Notes to the Balance Sheet

1 Bank $3 480
This is the closing Bank balance from the Statement of Receipts and Payments for May 2016.

2 Office Furniture $3 000
This was reported as a cash payment in the Statement of Receipts and Payments for May 2016.

3 Other assets
There were no transactions affecting Stock of Stationery, Equipment or Premises, so these items remain unchanged.

4 GST Clearing $ 160

Opening GST Payable		$ 400
Less	GST Settlement	400
Plus	GST Received on Fees	600
Less	GST Paid to Suppliers	440
GST Payable		$ 160

5 Loan – INS Finance $2 000
This was reported as a cash receipt in the Statement of Receipts and Payments for May 2016.

6 Mortgage $6 000/$59 500
$500 was reported as a cash payment in the Statement of Receipts and Payments for May 2016. Note that the $500 payment was taken from the non-current part of the mortgage; the current section must always show how much is due in the twelve months from the date of the statement (12 months × $500 per month = $6 000).

7 Capital $31 100
This is the Capital of $30 100 from the previous Balance Sheet (as at 30 April 2016), plus the capital contribution reported as a cash receipt in the Statement of Receipts and Payments for May 2016.

8 ***Plus*** Net Profit $2 220
This is the Net Profit determined in the Income Statement for May 2016.

9 ***Less*** Drawings $2 000
This was reported as a cash payment in the Statement of Receipts and Payments for May 2016.

STUDY TIP

Using the accounting equation will calculate Owner's Equity at the end, but the Balance Sheet must show how that figure was calculated by reporting Net Profit (Loss) and Drawings.

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Reporting a Net Loss

Should the business incur a Net Loss, the Owner's Equity section of the Balance Sheet would appear as is shown in Figure 8.3.

Figure 8.3 ***Reporting a Net Loss in the Balance Sheet***

Owner's Equity		
Capital – Nomi	31 320	
Less Net Loss	600	
	30 720	
Less Drawings	1 800	28 920

REVIEW QUESTIONS 8.4

1. **Explain** the relationship between the Income Statement and the Balance Sheet.
2. **State** the effect on Owner's Equity of:
   - Net Profit
   - Net Loss
   - Drawings
   - Capital Contributions.

8.5 USES OF THE INCOME STATEMENT

An Income Statement must be prepared in order to provide information for the business owner. By highlighting the revenue and expense items, and identifying whether the business achieved a Net Profit or Loss, the report is useful as a decision making tool.

The specific benefits of preparing an Income Statement are to:

1. *aid decision-making about the firm's operations* by measuring the firm's performance. Detailing revenues and expenses (and ultimately profit) allows the owner to identify where changes may be necessary.
2. *assess whether the business is meeting its revenue and expense targets* by comparing the Income Statement against budgeted (or expected) performance.
3. *assist in planning for future service activities* by providing a basis for the next budgeted Income Statement, which will set targets for the future. This may include setting targets to achieve a certain level of fees, staffing requirements, or advertising expenditure.
4. *assess the performance of management* in operating the business, primarily relating to generating sales and controlling expenses.

REVIEW QUESTIONS 8.5

1. **Explain** how the preparation of an Income Statement can assist decision-making.
2. **Explain** how the preparation of an Income Statement can assist planning for the future.

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WHERE HAVE WE BEEN?

- Revenues are inflows of economic benefits (or savings in outflows) in the form of increases in assets (or decreases in liabilities) that increase owner's equity (except for capital contributions by the owner).
- Expenses are outflows or consumptions of economic benefits in the form of decreases in assets (or increases in liabilities) that reduce owner's equity (except for Drawings by the owner).
- Net Profit or Loss is calculated by comparing revenue earned less expenses incurred in a reporting period.
- GST is not included as a revenue or expense item as it is collected/paid on the government's behalf and will result in either a GST asset or GST liability.
- Cash is not the same as profit because not all receipts are revenue and not all payments are expenses.
- The Income Statement is useful as a tool for planning and decision-making.

EXERCISES

EXERCISE 8.1

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For each of the following transactions, **state** the effect on the:

- Statement of Receipts and Payments
- Income Statement
- Balance Sheet.

a Paid wages
b Cash Fees
c Cash drawings
d Cash purchase of equipment
e Receipt of a loan
f Paid rent
g Capital contribution
h Credit purchase of office furniture.

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EXERCISE 8.2
INCOME STATEMENT

page 109

Christi's Car Clean Emporium has provided its Statement of Receipts and Payments for January 2016.

CHRISTI'S CAR CLEAN EMPORIUM

Statement of Receipts and Payments for January 2016

	$	$
Cash Receipts		
Car Washing Fees	7 300	
Car Detailing Fees	1 130	
GST Received	843	
Capital Contribution	10 000	19 273
Less Cash Payments		
Wages	2 250	
Cleaning Supplies	3 000	
Drawings	700	
GST Paid	1 430	
Equipment	9 000	
Advertising	300	
Rent	2 000	
Loan Repayment	5 000	23 680
Cash Surplus (Deficit)		**(4 407)**
Add Bank Balance at Start (1 January 2016)		**6 500**
Bank Balance at End (31 January 2016)		**2 093**

Additional information:

- All cleaning supplies were consumed during January 2016.
- Owner's equity as at 1 January 2016 was $23 000.

Required

* **a** **Prepare** an Income Statement for Christi's Car Clean Emporium for January 2016.

b Referring to your answer to part 'a', **explain** your treatment of:
- Capital Contribution
- Cleaning Supplies.

c **Explain** two reasons why Christi's Car Clean Emporium suffered a cash deficit in January 2016 despite earning a profit.

* **d** **Show** the owner's equity section of the Balance Sheet of Christi's Car Clean Emporium as at 31 January 2016.

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EXERCISE 8.3
INCOME STATEMENT

WB page 111

Batman and Bowler is a specialist cricket coaching clinic, and as at 1 October 2016, the Balance Sheet showed Owner's Equity of $39 400. The owner has provided the firm's Statement of Receipts and Payments for October 2016.

BATMAN AND BOWLER

Statement of Receipts and Payments for October 2016

	$	$
Cash Receipts		
Coaching Fees	6 000	
GST Received	600	
Interest on Investments	150	
GST Refund	2 300	
Loan – ANZ	2 000	11 050
Less Cash Payments		
Wages	4 200	
Drawings	1 000	
GST Paid	345	
Electricity	400	
Insurance	250	
Rent	2 000	
Accounting Fees	800	
Interest on Loan	100	9 095
Cash Surplus (Deficit)		**1 955**
Add Bank Balance at Start (1 October 2016)		**500**
Bank Balance at End (31 October 2016)		**2 455**

Required

* **a** **Prepare** an Income Statement for Batman and Bowler for October 2016.

b Referring to your answer to part 'a', **explain** your treatment of:
- Interest on Investments
- Drawings.

c **Explain** two reasons why Batman and Bowler suffered a loss despite generating a cash surplus for October 2016.

* **d** **Show** the owner's equity section of the Balance Sheet of Batman and Bowler as at 31 October 2016.

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EXERCISE 8.4

INCOME STATEMENT AND BALANCE SHEET

WB page 113

Jackson Pollock is the owner/operator of Blue Pools, a swimming pool maintenance service. Jackson employs two pool cleaners and is personally responsible for customer management and bookkeeping. On 28 February 2016, the unclassified Balance Sheet of Blue Pools showed the following.

Assets		Equities	
Bank	14 500	Loan – Wizard	24 000
Tools and Equipment	27 000	GST Payable	360
Van	15 000	Capital – J. Pollock	32 140
	$56 500		**$56 500**

The Statement of Receipts and Payments for Blue Pools for March 2016 showed the following information.

BLUE POOLS

Statement of Receipts and Payments for March 2016

	$	**$**
Cash Receipts		
Cash Fees	13 800	
GST Received	1 380	
Capital Contribution	1 000	
Small Business Prize	500	16 680
Less Cash Payments		
Wages	9 500	
Drawings	3 000	
GST Paid	415	
Interest on Loan	250	
Loan Repayment	500	
Van Expenses	150	
GST Settlement	360	
Tools and Equipment	4 000	18 175
Cash Surplus (Deficit)		**(1 495)**
Add Bank Balance at Start (1 March 2016)		**14 500**
Bank Balance at End (31 March 2016)		**13 005**

Additional information:

- The Small Business Prize was awarded by Stonnington Council in recognition of Blue Pool's outstanding customer satisfaction rating.
- The Loan – Wizard is repayable in monthly instalments of $500.

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Required

* **a** **Prepare** an Income Statement for Blue Pools for March 2016.
 b Referring to your answer to part 'a', **explain** your treatment of the small business prize.
 c **Suggest** two actions Jackson could take to reduce cash payments without directly affecting net profit for March 2016.
* **d** **Prepare** an appropriately classified Balance Sheet for Blue Pools as at 31 March 2016.

EXERCISE 8.5

ACCOUNTING REPORTS

WB page 115

On 1 January 2016 Bella Bancroft left her job as a computer technician, keen to start her own clothing alterations and mending service called Sew Well. On 31 May 2016, the unclassified Balance Sheet of Sew Well showed the following information.

Assets		Equities	
Bank	5 500	Loan – Aussie	30 000
Tools and Equipment	78 000	GST Payable	1 000
Van	27 000	Capital – Bancroft	79 500
	$110 500		**$110 500**

The cash journals for Sew Well for June 2016 showed the following.

Cash Receipts Journal (extract)

Date	Details	Rec. No.	Bank	Alteration Fees	Sundries	GST
June 2016	Capital Contribution				4 000	
	TOTALS		**19 290**	**13 900**	**4 000**	**1 390**

Cash Payments Journal (extract)

Date	Details	Chq. No.	Bank	Wages	Drawings	Sundries	GST
June 2016	Van Expenses					800	
	Loan Repayment					400	
	GST Settlement					1 000	
	Sewing Machines					4 500	
	Interest on Loan					150	
	TOTALS		**20 380**	**10 200**	**2 800**	**6 850**	**530**

Additional information:

- The Loan – Aussie HL is repayable at $4 800 p.a.

Required

* **a** **Prepare** a Statement of Receipts and Payments for Sew Well for June 2016.
* **b** **Prepare** an Income Statement for Sew Well for June 2016.
 c **Explain** two reasons why Sew Well was able to earn a profit despite suffering a cash deficit for June 2016.
* **d** **Prepare** an appropriately classified Balance Sheet for Sew Well as at 30 June 2016.
 e **Explain** why the Balance Sheet is titled 'as at', yet the Income Statement is titled for the period.

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EXERCISE 8.6

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ACCOUNTING REPORTS

Mark Lindsberg runs a drycleaning business in Frankston called Clean as a Whistle. Most customers are small businesses whose employees wear uniforms, but as an expert in the field, Mark is also consulted by clothing firms who seek his advice regarding the care instructions for new garments. Garments are picked up and delivered using a company van. On 31 August 2016, the assets and equities of Clean as a Whistle were as follows.

Assets		**Equities**	
Bank	2 500	Loan – ANZ	42 000
Computer	3 200	Capital – Lindsberg	40 000
Office Furniture	7 600	GST Payable	2 700
Cleaning Equipment	59 000		
Delivery Van	12 000		
	$84 700		**$84 700**

Lindsberg's capital as at 1 August 2016 was $35 300. In August 2016 he withdrew $1 200 in cash for his own use.

Required

a **Calculate** the Net Profit or Loss of Clean as a Whistle for August 2016.

The cash journals of Clean as a Whistle for September 2016 showed the following.

Cash Receipts Journal (extract)

Date	Details	Rec. No.	Bank	Cleaning Fees	Consultancy Fees	Sundries	GST
Sept. 2016	Loan – ANZ					4 000	
	TOTALS		**18 300**	**9 500**	**3 500**	**4 000**	**1 300**

Cash Payments Journal (extract)

Date	Details	Chq. No.	Bank	Supplies	Drawings	Wages	Sundries	GST
Sept. 2016	Electricity						600	
	Interest on Loan						150	
	Cleaning Equipment						800	
	Rent						1 500	
	Advertising						1 000	
	TOTALS		**16 590**	**6 500**	**1 400**	**3 600**	**4 050**	**1 040**

Additional information:

- The Loan – ANZ was extended in September 2016 in readiness for the purchase of a new computer in mid-October 2016 and is repaid in quarterly instalments of $2 100.

Required

* **b** **Prepare** a Statement of Receipts and Payments for Clean as a Whistle for September 2016.

* **c** **Prepare** an Income Statement for Clean as a Whistle for September 2016.

d **Explain** two reasons why Clean as a Whistle suffered a Net Loss despite generating a cash surplus for September 2016.

* **e** **Prepare** an appropriately classified Balance Sheet for Clean as a Whistle as at 30 September 2016.

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EXERCISE 8.7

INCOME STATEMENT AND BALANCE SHEET

WB page 120

Alex Chilton runs a painting business in Sydenham called Big Star Decorating. Most of her work is done for cash for individuals who are renovating their homes, but she also does some credit jobs for small businesses. Paint is purchased only as necessary for each job, so Alex never keeps any paint on hand. On 1 January 2016, the assets and liabilities of Big Star Decorating were as follows.

Assets		**Equities**	
Bank	1 000	Loan – nab	16 000
Computer	5 500	GST Payable	2 000
Office Furniture	8 600	Capital – Chilton	36 000
Painting Equipment	26 500		
Van	12 400		
	$54 000		**$54 000**

Additional information:

- The loan principal is repaid in equal instalments of $1 000 per quarter.
- During December 2015, Big Star Decorating earned a profit of $5 400, and Alex withdrew $3 500.

Required

a **Calculate** Alex's capital as at 1 December 2015.
b **Calculate** the Working Capital Ratio of Big Star Decorating as at 1 January 2016.
c **Referring** to the Working Capital Ratio, **comment** on the liquidity of Big Star Decorating as at 1 January 2016.

The Statement of Receipts and Payments for Big Star Decorating for January 2016 showed the following.

BIG STAR DECORATING

Statement of Receipts and Payments for January 2016

	$	**$**
Cash Receipts		
Cash Fees	8 000	
GST Received	800	8 800
Less Cash Payments		
Wages	500	
Paint	4 000	
Drawings	3 000	
GST Paid	490	
Insurance	200	
Loan Principal	1 000	
Interest on Loan	100	
GST Settlement	2 000	
Van Expenses	700	11 990
Cash Surplus (Deficit)		**(3 190)**
Add Bank Balance at Start (1 January 2016)		**1 000**
Bank Balance at End (31 January 2016)		**(2 190)**

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Alex is concerned that because the business has suffered a cash deficit, it must not be making a profit.

Required

* **d** **Prepare** an Income Statement for Big Star Decorating for January 2016.
e **Explain** two reasons apart from Drawings why Big Star Decorating was able to earn a profit despite suffering a cash deficit for January 2016.
* **f** **Prepare** an appropriately classified Balance Sheet for Big Star Decorating as at 31 January 2016.

EXERCISE 8.8

INCOME STATEMENT AND BALANCE SHEET

WB page 122

At the start of 2016, Michael Owen left his job as a courier with Speedy Deliveries to start up his own courier business called Faster than the Rest. Michael had been earning $45 000 p.a., but was eager to take up the challenge of owning and operating his own small business. As at 30 June 2016, the unclassified Balance Sheet of Faster than the Rest showed the following.

Assets		**Equities**	
GST Receivable	1 000	Bank	1 500
Office Equipment	11 500	Loan – nab	24 000
Courier Vans	42 000	Capital – Owen	29 000
	$54 500		**$54 500**

Additional information:

- The Loan – nab was taken out on a fixed-term at the start of January 2016. The principal is repaid on the first of every month in equal instalments of $500.
- At 1 June 2016, Michael's equity in Faster than the Rest amounted to $31 000. During June 2016, the firm earned a profit of $1 500.

Required

a **Calculate** the date at which the loan will be repaid in full.
b **Calculate** Michael's Return on Owner's Investment (ROI) for June 2016.
c **Calculate** Michael's Drawings for June 2016.
d **Suggest** one reason why Michael should decrease his Drawings, and one reason why Michael should not decrease his Drawings.

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Where are we headed?

After completing this chapter, you should be able to:

- **define** budgeting
- **distinguish** between budgeted and actual reports
- **explain** the purposes of budgeting
- **describe** the budgeting process
- **prepare** budgeted reports for cash and profit
- **explain** the uses of budgeted reports
- **suggest** strategies to address problems identified by budgeted reports
- **distinguish** between cash and profit items in budgeted reports
- **prepare** variance reports for cash and profit
- **distinguish** between favourable and unfavourable variances.

CHAPTER 9

BUDGETS

KEY TERMS

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

- budgeting
- Cash Budget
- Budgeted Income Statement
- variance report
- Cash Budget Variance Report
- variance
- Income Statement Variance Report.

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9.1 BUDGETING

There is a saying in business circles that 'failing to plan is planning to fail'. At its heart is the idea that a business cannot be successful if it does not prepare early for what it may face in the future. Of course, business owners must analyse what has already happened so that they can identify where they need to improve, and this has been the focus of most of what we have studied so far. However, owners must also 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.

Budgeting
the process of predicting/estimating the financial consequences of future events

Budgeting is the process of preparing reports that estimate or predict the financial consequences of likely future transactions. These reports look almost exactly the same as the reports we have already prepared, but are different in two key ways:

1 Budgets report *future events* rather than historical events; they focus on what might 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.

Budgeted reports

In practice, the owner of a small service business will be engaging in a form of budgeting every day, ranging from estimating the quantity of materials that will be needed for a particular job, to the number of hours staff will be expected to work in a certain week, to how many services s/he expects to provide in a particular month. However, it is only via the preparation of budgeted reports that the owner can assess how these estimates affect the firm's expected performance overall.

STUDY TIP

If you can prepare actual reports, you can prepare budgeted reports as they contain the same types of items.

In this course, we will concentrate on two general-purpose budgets:

1 *Cash Budget* which shows all expected cash receipts and payments, and thus the firm's expected cash surplus or deficit for the budget period, and its expected bank balance at the end of the budget period.
2 *Budgeted Income Statement* which shows all expected revenues and expenses, and thus the firm's expected Net Profit for the budget period.

The purpose of budgeting

Like all accounting reports, budgeted reports have a role in both planning and decision-making:

1 Budgeting *assists planning* by predicting what is likely to occur in the future. This allows the owner to prepare in advance so that possible problems may be managed, and possible opportunities may be taken.
2 Budgeting *aids decision-making* by providing a standard (a benchmark or yardstick) 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.

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REVIEW QUESTIONS 9.1

1 **Define** the term 'budgeting'.
2 **State** two differences between the information presented in budgeted and actual reports.
3 **Explain** what types of information are reported in a:
   - Cash Budget
   - Budgeted Income Statement
4 **Explain** how budgets assist planning.
5 **Explain** how budgets assist decision-making.

9.2 THE BUDGETING PROCESS

We are studying budgeting at the *end* of the accounting process, but budgeting should be one of the *first* steps in starting a new business. After all, a budget is part of the plan the business will use to guide its future, so it must be prepared before operations begin. However, the information in a budget relies largely on what has happened before: what we expect to happen this year will depend on what happened last year.

In this way, budgeting is part of a *continuous process*: budgets should be prepared; 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 9.1.

Figure 9.1 ***The budgeting process***

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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 brand 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 9.2

1 **Explain** why budgeting is described as a 'process'.
2 **Describe** the various stages in the budgeting process.
3 **Explain** the role of historical data in the preparation of budgeted reports.

9.3 CASH BUDGET

In order to survive into the future, a small business must have sufficient cash to meet its obligations. These obligations will include paying expenses (such as wages, rent or advertising); meeting loan repayments; and providing cash drawings for the owner. In order to do this, it must generate sufficient cash, chiefly through its cash takings or fees. The **Cash Budget** attempts to estimate all future cash receipts and payments, and thus predict the firm's cash balance at the end of the budgeted period.

Cash Budget
an accounting report which predicts future cash receipts and payments, determines the expected cash surplus or deficit, and thus estimates the bank balance at the end of the budget period

Expected cash receipts

The Cash Budget should report all cash the business expects to receive in the budget period. Typical cash receipts a service firm could expect to see in its Cash Budget might include:

- Cash Fees/takings
- GST received
- GST refund
- other revenue received (such as interest or commission revenue)
- cash contributions by the owner
- loans received
- cash received from the sale of a non-current asset.

Expected cash payments

Similar to cash receipts, the Cash Budget should report all cash the business expects to pay in the budget period. Typical cash payments a service firm could expect to see in its Cash Budget might include:

- expenses paid (such as wages, rent or advertising)
- GST paid
- GST settlement
- cash drawings by the owner
- loan repayments
- cash paid for non-current assets.

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EXAMPLE

Perfect Portraits is a photography business run by Karl Rubens. As at 30 September 2016, the business had $1 800 cash in the bank, and Karl has predicted the following transactions for the coming month of October 2016:

- Cash portrait fees are estimated to be $16 000 (plus $1 600 GST)
- Karl plans to contribute $10 000 cash during October 2016 to help finance the purchase of a new company car later in the year.
- The following expenses will be paid during October 2016:

Photographic Supplies	$7 000	(plus $700 GST)
Wages	4 300	
Advertising	600	(plus $60 GST)
Interest expense	150	

- A loan repayment of $850 will be made on 12 October 2016.
- Cash drawings will be $900. Drawings for Photographic Supplies is expected to be $140.
- New camera equipment will be purchased for $2 530 (including $230 GST) in October 2016, with a deposit of $500 paid at the time of purchase, and the remainder due in November 2016.

The Cash Budget for Perfect Portraits for October 2016 is shown in Figure 9.2.

Figure 9.2 *Cash Budget*

PERFECT PORTRAITS

Cash Budget for October 2016

	$	$
Cash Receipts		
Cash Fees	16 000	
Capital Contribution	10 000	
GST Received	1 600	27 600
Less Cash Payments		
Photographic Supplies	7 000	
Wages	4 300	
Advertising	600	
Interest	150	
Loan Principal	850	
Camera Equipment	500	
Drawings	900	
GST Paid	760	15 060
Cash Surplus (Deficit)		**12 540**
Add Bank Balance at Start (1 October 2016)		**1 800**
Bank Balance at End (31 October 2016)		**14 340**

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The most obvious thing to note about the format of the Cash Budget is its similarity to the Statement of Receipts and Payments; in fact, the headings are identical. The only differences are those outlined earlier: rather than actual historical data, the Cash Budget uses *estimates* of *future* transactions. The only actual figure in the Cash Budget is the bank balance at start (as this figure is already known when the budget is prepared).

In this example, Perfect Portraits is expecting to generate cash receipts of $27 600 and make cash payments of $15 060, leading to a cash surplus of **$12 540** for October 2016. As a result, its bank balance as at 31 October 2016 will increase to $14 340 (provided all goes according to budget).

Note that not all the transactions listed in the example are reported in the Cash Budget for October 2016, because not all involve cash. In this example, the drawings of Photographic Supplies has been excluded altogether as it is a *non-cash transaction*. Similarly, even though the camera equipment will cost $2 300 (excluding GST), only $500 is reported in the Cash Budget for October 2016 as the remainder will not be paid until *November* 2016.

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.

Using the Cash Budget: Planning

The Cash Budget *aids planning* by allowing the owner to prepare in advance for an expected cash surplus or cash deficit. That is, the owner will be forewarned if the business is not generating enough cash, or if excess funds will be available, and will then be able to take steps to prepare for (or perhaps even prevent) that outcome.

The Cash Budget in Figure 9.2 predicted a cash surplus (of **$12 540**), so the owner can start planning how this extra cash can be used. (In this example, the owner had already made plans to use $10 000 to contribute to the purchase of a company car later in the year.)

Preparing for a cash deficit

Where the cash budget warns of a *cash deficit*, the owner may be able to respond by:

- increasing advertising; changing prices; or offering other services in order to increase Cash Fees
- making a cash capital contribution
- reducing cash payments for expenses (see below)
- deferring the purchase of non-current assets, or using credit facilities or a loan for their purchase
- deferring loan repayments (on existing loans)
- taking less cash drawings
- organising (or extending) an overdraft facility.

Although cutting expenses is an obvious (and frequently appropriate) response to a predicted cash deficit, the owner must be particularly mindful of which expenses are cut, as the benefits the expenses provide may be vital in the earning of cash takings. For example, reducing advertising may mean less exposure; or cutting wages might mean a poorer (or less timely) service; and each may mean less business, and lower cash takings. In cases like these, cutting expenses may actually make the cash situation worse rather than better.

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Preparing for a cash surplus

Should the cash budget predict an overall *cash surplus*, the owner might plan to use the extra cash to:

- purchase more or newer non-current assets
- increase loan repayments
- increase cash drawings
- expand operating activities by increasing advertising, employing more staff etc.

Alternatively, a business that starts a period with a bank overdraft may choose to do nothing, and let the expected cash surplus bring their bank balance back into surplus.

Using the Cash Budget: Decision-making

In addition to its role in planning, the Cash Budget *aids decision-making* about the effectiveness of the firm's cash management. The Cash Budget sets a standard (a target or benchmark) which can be used to assess actual cash receipts and payments. By comparing actual cash flows against the budgeted figures, the owner can identify problems areas (where performance was below expectation), and then act to correct the situation.

For example, Figure 9.2 set a target for Cash Fees of $16 000: should actual Cash Fees not meet this expectation, corrective action (in the form of more/better advertising, or a review of prices) can be taken. Similarly, should payments for Photographic Supplies exceed the budgeted figure of $7 000, the owner may wish to review handling procedures, or even change suppliers (for a cheaper price).

REVIEW QUESTIONS 9.3

1. **Explain** what is reported in a Cash Budget.
2. **List** three typical cash receipts for a service firm.
3. **List** three typical cash payments for a service firm.
4. **Explain** how a Cash Budget can assist in planning.
5. **State** three actions the owner could take to prepare for a budgeted cash deficit.
6. **State** three actions the owner could take to use a budgeted cash surplus.
7. **Explain** how a Cash Budget can aid decision-making.

9.4 CASH BUDGET – CONSECUTIVE PERIODS

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 more timely fashion (and can perhaps stop a small problem from becoming large).

However, Figure 9.2 relates only to one month taken in isolation. To show the effect of monthly variations it would be wise for a business to prepare budgets for consecutive months. That is, separate budgets for October, November and December 2016 could be prepared and presented side-by-side to show trends in receipts and payments from month to month. Such a budget may appear as is shown in Figure 9.3.

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Figure 9.3 ***Cash Budget – consecutive periods***

PERFECT PORTRAITS

Cash Budget for October – December 2016

	October	November	December
Cash Receipts	**$**	**$**	**$**
Cash Fees	16 000	14 000	17 500
Capital Contribution	10 000		
Loan – Bank of Winston			12 000
GST Received	1 600	1 400	1 750
Total Cash Receipts	**27 600**	**15 400**	**31 250**
Less Cash Payments			
Photographic Supplies	7 000	6 000	9 000
Wages	4 300	4 200	4 500
Advertising	600	450	800
Interest	150	150	150
GST Settlement		2 700	
Loan Principal	850	850	850
Camera Equipment	500	2 030	
Drawings	900	900	900
Company Car			35 000
GST Paid	760	645	5 125
Total Cash Payments	**15 060**	**17 925**	**56 325**
Cash Surplus (Deficit)	**12 540**	**(2 525)**	**(25 075)**
Add Bank Balance at Start	**1 800**	**14 340**	**11 815**
Bank Balance at End	**14 340**	**11 815**	**(13 260)**

Note how the balance at the end of October ($14 340) is then transferred to become the balance at the start of November; November's closing balance ($11 815) becomes the opening balance for December; and so on.

This type of budget allows the owner to assess *when* to undertake a particular cash activity (such as the purchase of a non-current asset or repayment of a loan). In this example, the budgeted cash balance at the end of October 2016 ($14 340) is healthy, and although it is expected to fall to $11 815 by the end of November 2016, there still seems to be plenty of cash available to purchase the company car. However, the budget shows that this purchase (of the company car for $35 000) will drive the bank account into overdraft ($13 260) as at 31 December 2016. Armed with this information, the owner can decide to defer the purchase of the car, contribute additional funds of his own, or perhaps fund the purchase using a loan or other finance.

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REVIEW QUESTIONS 9.4

1 **Explain** two reasons why budgets should be prepared more frequently than once per year.
2 **Explain** the relationship between the bank balances shown in Cash Budgets prepared over consecutive periods.
3 **Explain** how preparing Cash Budgets over consecutive periods can aid planning.

9.5 BUDGETED INCOME STATEMENT

Whereas the Cash Budget reports the effect of expected cash transactions, the **Budgeted Income Statement** reports the effect of expected revenues earned and expenses incurred for the budget period. In many cases these revenues and expenses will be the same as the cash receipts and payments. However, because cash and profit relate to different areas of business performance it is likely that the firm's budgeted cash surplus (or deficit) will be different to its budgeted Net Profit.

Let's use the same information that was used to generate the Cash Budget in Figure 9.2 to illustrate how the Budgeted Income Statement will appear, but this time with the revenues and expenses highlighted.

Budgeted Income Statement an accounting report which predicts revenues earned and expenses incurred, and thus the expected Net Profit, for the budget period.

EXAMPLE

Perfect Portraits is a photography business run by Karl Rubens. As at 30 September 2016, the business had $1 800 cash in the bank, and Karl has predicted the following transactions for the coming month of October 2016:

- Cash portrait fees are estimated to be $16 000 (plus $1 600 GST)
- Karl plans to contribute $10 000 cash during October 2016 to help finance the purchase of a new company car later in the year.
- The following expenses will be paid during October 2016:

Photographic Supplies	$7 000	(plus $700 GST)
Wages	4 300	
Advertising	600	(plus $60 GST)
Interest expense	150	

- A loan repayment of $850 will be made on 12 October 2016.
- Cash drawings will be $900. Drawings for Photographic Supplies is expected to be $140.
- New camera equipment will be purchased for $2 530 (including $230 GST) in October 2016, with a deposit of $500 paid at the time of purchase, and the remainder due in November 2016.

The budgeted Income Statement for Perfect Portraits for October 2016 is shown in Figure 9.4.

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Figure 9.4 ***Budgeted Income Statement***

PERFECT PORTRAITS

Budgeted Income Statement for October 2016

	$	$
Revenue		
Cash Fees		16 000
Less Expenses		
Photographic Supplies	7 000	
Wages	4 300	
Advertising	600	
Interest	150	12 050
Net Profit		**3 950**

As with the Cash Budget, the Budgeted Income Statement closely resembles the actual Income Statement, but uses budgeted rather than actual historical data.

In this example, Perfect Portraits is expecting to earn revenue of $16 000 from Cash Fees, and incur expenses of $12 050, leaving it with an expected Net Profit of **$3 950** for October 2016.

Cash versus profit

Note that not all the items reported in the Cash Budget (in Figure 9.2) are reported in the Budgeted Income Statement (in Figure 9.4), because not all cash receipts are revenues, and not all cash payments are expenses. And as a consequence, the budgeted Net Profit (of $3 950) is not the same as the budgeted cash surplus (of $12 540).

Revenue

According to the definition, a *revenue* is an inflow of economic benefits (or saving in an outflow of economic benefits), in the form of an increase in assets (or decrease in liabilities) which leads to an increase in owner's equity, excluding capital contributions by the owner. Clearly, 'Cash Fees' fits this definition, and is therefore included in the Budgeted Income Statement.

However, some cash receipts are **not** revenues:

Item	Reason
Capital contribution	Expressly excluded from the definition of revenue
Loan received	Increases assets and liabilities (not Owner's Equity)
GST received	Increases assets and liabilities (not Owner's Equity)
GST refund	No overall increase in assets

These items will be reported in the Cash Budget as cash receipts and will increase budgeted cash, but will **not** be reported in the Budgeted Income Statement as they are not revenues and so will not affect budgeted Net Profit.

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Expenses

According to the definition, an *expense* is an outflow of economic benefits (or reduction in an inflow of economic benefits), in the form of a decrease in assets (or increase in liabilities) which leads to a decrease in owner's equity, excluding drawings by the owner. In this example, Photographic Supplies, Wages, Advertising and Interest are all expenses and are therefore included in the Budgeted Income Statement.

However, some cash payments are **not** expenses:

Item	Reason
Drawings	Expressly excluded from the definition of an expense
Loan repayment	Decreases assets and liabilities (not owner's equity)
Cash purchase of NCA	No overall increase in assets
GST paid	Decreases assets and liabilities (not owner's equity)
GST settlement	Decreases assets and liabilities (not owner's equity)

Using the Budgeted Income Statement

Just as the Cash Budget can be used to assist both planning and decision-making, so too can the Budgeted Income Statement.

The Budgeted Income Statement *aids planning* by reporting expected revenues and expenses and thus indicating the firm's future requirements relating to issues like staffing (which may require hiring or firing), the acquisition of supplies or materials, or the need for advertising campaigns. Where a Net Loss is predicted, the owner can respond by:

- changing prices, advertising or the services offered to increase Cash Fees
- seeking cheaper suppliers
- examining rosters to ensure staffing levels are appropriate.

As a *decision-making* tool, the Budgeted Income Statement provides a standard against which actual trading performance can be measured, allowing problems to be identified and corrective action taken. This benchmark can also act as a target or goal to motivate staff and management. Specifically, the owner could assess:

- revenue earning performance (and the effectiveness of advertising)
- expense control
- staff performance.

REVIEW QUESTIONS 9.5

1. **Explain** what is reported in a Budgeted Income Statement.
2. **State** three examples of:
   - cash receipts that are **not** revenues
   - cash payments that are **not** expenses.
3. **Explain** how a Budgeted Income Statement can be used to assist planning.
4. **Explain** how a Budgeted Income Statement can be used to assist decision-making.

9.6 VARIANCE REPORTS

One of the key reasons for preparing a Cash Budget is that it provides a standard or benchmark for the assessment of actual performance. By comparing actual and budgeted figures, 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**.

Variance report
an accounting report that compares actual and budgeted figures, highlighting variances so that problems can be identified and corrective action taken

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Cash Budget Variance Report

Cash Budget Variance Report
an accounting report which compares actual and budgeted cash flows, highlighting variances so that problems can be identified and corrective action taken

A **Cash Budget Variance Report** compares actual and budgeted cash figures, highlighting any differences (which are known as 'variances'), so that problems can be identified and corrected. In appearance, it is very similar to a Cash Budget, but is has additional columns for actual figures, and the calculation of the variance. It is prepared once the actual figures are available, but before the next budget.

Figure 9.5 shows the Cash Budget Variance Report for Perfect Portraits for October 2016.

Figure 9.5 *Cash Budget Variance Report*

PERFECT PORTRAITS

Cash Budget Variance Report for October 2016

	$	$	$	$
	Budget	**Actual**	**Variance**	**F/U**
Cash Receipts				
Cash Fees	16 000	13 000	3 000	U
Capital Contribution	10 000	11 500	2 500	F
GST Received	1 600	1 300	300	U
Total Cash Receipts	**27 600**	**25 800**	**1 800**	U
Less Cash Payments				
Photographic Supplies	7 000	7 500	500	U
Wages	4 300	4 100	200	F
Advertising	600	420	180	F
Interest	150	150	–	–
Loan Principal	850	750	100	F
Camera Equipment	500	2 530	2 030	U
Drawings	900	800	100	F
GST Paid	760	1 045	285	U
Total Cash Payments	**15 060**	**17 295**	**2 235**	U
Cash Surplus (Deficit)	**12 540**	**8 505**	**4 035**	U
Add Bank Balance at Start (1 October 2016)	**1 800**	**1 800**	–	–
Bank Balance at End (31 October 2016)	**14 340**	**10 305**	**4 035**	U

STUDY TIP

It doesn't really matter whether you subtract budgeted figures from actual, or the other way around. The important thing is to identify the variance correctly as favourable or unfavourable.

STUDY TIP

If there is no variance at all, then it is neither favourable nor **unfavourable**; don't get too excited just because the budget was accurate!

Variance
the difference between an actual figure and a budgeted figure, expressed as 'favourable' or 'unfavourable'.

A **variance** is simply the difference between the budgeted figure and actual figure. Whether it is favourable or unfavourable depends – in the Cash Budget Variance Report – on its effect on 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.

Note that in our example, the variance in the cash payment for the Loan principal is reported as favourable because cash will not decrease as much as was expected. The

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fact the liabilities will not decrease by as much does not affect its classification in the Cash Budget Variance Report.

Interpreting the Cash Budget Variance Report

In this example, the cash surplus was $4 035 lower than was expected: why did this occur?

Significantly, Cash Fees was $3 000 lower than budgeted, perhaps as a result of a lower than expected payment for advertising: customers were less aware of the firm's services, and fees were lower as a result. Although lower fees meant a favourable variance in Wages (with less photography done, not as many staff hours were required), the fact that Cash Fees did not meet the budgeted figure meant that the cash surplus was below budget.

The unfavourable variance in Photographic Supplies – which were higher even though Cash Fees was lower than budgeted – presents a different problem: does this mean supplies were wasted, or more expensive to buy, or does the business still have some supplies on hand? Is there some other explanation?

It also appears that the full amount was paid for Camera Equipment, rather than just the deposit. The owner contributed $500 more than budgeted, but this was not enough to cover the extra cash required for the equipment.

The net result of lower than expected cash receipts and higher than expected cash payments was an unfavourable variance in the cash surplus of $4 035, indicating less than desirable management of cash.

STUDY TIP

Variance reports are also known as performance reports, as they assess the firm's performance in meeting its budget.

Income Statement Variance Report

In the same way that a Cash Budget Variance Report compares actual and budgeted cash flows, an **Income Statement Variance Report** can be prepared to compare actual and budgeted revenues and expenses.

Income Statement Variance Report an accounting report that compares actual and budgeted revenues and expenses, and highlights variances so that problems can be identified and corrective action taken

Figure 9.6 shows the Income Statement Variance Report for Perfect Portraits for October 2016.

Figure 9.6 *Income Statement Variance Report*

PERFECT PORTRAITS

Income Statement Variance Report for October 2016

	$	$	$	$
	Budget	**Actual**	**Variance**	**F/U**
Revenue				
Cash Fees	16 000	13 000	3 000	U
Less Expenses				
Photographic Supplies	7 000	7 500	500	U
Wages	4 300	4 100	200	F
Advertising	600	420	180	F
Interest	150	150	–	–
Total Expenses	**12 050**	**12 170**	**120**	U
Net Profit (Loss)	**3 950**	**830**	**3 120**	U

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Variances in this report are classified as favourable or unfavourable depending on their effect on *profit*:

- 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.

Interpreting the Income Statement Variance Report

In this example, Net Profit was $3 120 lower than was expected: why did this occur?

Notwithstanding the favourable variance in Wages expense, less Advertising appears to have had unfavourable consequences for revenue from Cash Fees and, as a result, Net Profit, both of which are below budget. In light of this variance in Cash Fees, the higher than expected Photographic Supplies variance is particularly concerning.

The net result of lower than expected revenue (Cash Fees) and higher than expected expenses (Photographic Supplies) is a lower than expected Net Profit.

Using the Variance Reports

Assuming the variances are not caused by poor estimates, then both the Cash Budget Variance Report and the Income Statement Variance Report are valuable *aids to decision-making*. The unfavourable variances should be investigated, and their cause(s) identified. This will allow the owner to take corrective action.

In this example, a different approach to advertising seems necessary if the business is to generate greater Cash Fees, and an investigation may reveal a need for better techniques for purchasing and/or handling Photographic Supplies. However, the decision to pay cash for the camera equipment seems affordable (provided the business has enough cash to purchase the company car later in the year).

Even if the variances are simply the result of poor budgeting, this does not mean the variance reports are useless. Both variance reports can be used to assist *planning* for the next reporting period by providing a basis for the preparation of the next budget, so that it is more accurate and thus more useful as a benchmark and decision-making tool.

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REVIEW QUESTIONS 9.6

1 **Explain** what is shown in a variance report.
2 **Define** the term 'variance'.
3 **Explain** when a variance in the Cash Budget Variance Report would be considered to be:
- favourable
- unfavourable.

4 **Explain** when a variance in the Income Statement Variance Report would be considered to be:
- favourable
- unfavourable.

5 **Explain** how a variance report can be used to assist decision-making.
6 **Explain** how a variance report can be used to assist planning.

WHERE HAVE WE BEEN?

- Budgeting is the process of preparing reports to estimate or predict the financial consequences of likely future transactions.
- Budgets use estimates of future events rather than actual, verifiable data.
- Budgets assist planning by predicting what is likely to occur in the future and aid decision-making by providing a benchmark or yardstick against which actual performance can be measured.
- A variance is the difference between the budgeted figure and actual figure, and classified as favourable or unfavourable depending on its effect on Bank (for a Cash Budget Variance Report) or profit (for an Income Statement Variance Report).
- Variance reports compare actual and budgeted figures, highlighting variances so that problems can be identified and corrected.

EXERCISES

EXERCISE 9.1
CASH BUDGET

WB page 124

On 31 December 2015, Finishing Touch painting service had $1 600 in its bank account. It has provided the following list of expected transactions for January 2016.

•	Painting fees	$ 24 000	plus GST
•	Cash purchases of paint	18 000	plus GST
•	Wages paid	3 600	
•	Electricity paid	1 500	plus GST
•	Loan repayment	800	
•	Drawings – cash	3 200	
	– paint	300	
•	Interest on loan	450	

Required

a **Calculate** budgeted GST paid for January 2016.
* b **Prepare** a Cash Budget for Finishing Touch for January 2016.
c **Suggest** two actions the owner may take to prepare for the outcome predicted in the Cash Budget for January 2016.

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EXERCISE 9.2
CASH BUDGET

WB page 125

Langwarrin Laundry Service (LLS) provides a laundering service to local hotels and some hospitals. The firm's expected transactions for July 2016 are listed below:

- Laundry fees are expected to be $14 300, including $1 300 GST.
- The business expects to purchase $650 worth of laundry supplies (which will incur GST), all of which will be paid in cash.
- The following expenses will be paid:

Wages	$1 250	
Advertising	682	(including GST)
Interest on loan	150	

- Six months' rent will be paid for in July 2016, costing $6 000 plus $600 GST.
- An old washing machine will be sold for $120 cash.
- A new machine will be bought for $3 200 (plus $320 GST), but not paid for until August 2016.
- A GST settlement of $1 800 is due in July 2016.
- The owner plans to withdraw $1 000 cash, and contribute her own vehicle worth $12 000 for business use.
- As at 30 June 2016, the business had a bank overdraft of $1 300.

Required

a **Calculate** budgeted GST paid to suppliers for July 2016.

* b **Prepare** a Cash Budget for Langwarrin Laundry Service for July 2016.

c Referring to your answer to part 'b', **explain** how this Cash Budget can be used to aid planning.

EXERCISE 9.3
CASH BUDGET

WB page 126

Melinda Fricke runs Sebastapol Electrics, providing electrical services in western Victoria. She has provided the following information regarding its expected transactions for April 2016.

- As at 1 April 2016, the business had $860 in the bank.
- Tools worth $1 400 (plus GST) will be purchased on credit from Global Tools on 14 April 2016. Of this amount, $350 will be paid by the end of the month.
- A GST refund of $420 is due in April 2016.
- Fees are estimated to be $5 400 (plus GST), but one customer has permission to pay his account of $370 (plus GST) in May 2016.
- The business will pay $627 (including $57 GST) for electrical supplies. By the end of April 2016 Melinda expects that $120 worth of supplies will still be on hand, with the remainder used in jobs.
- Six months' advertising will be paid in advance on 1 May 2015, at a cost of $1 200 (plus GST).
- The following expenses will be paid during April 2016:

Wages	$ 2 000	
Rent	$ 1 000	(plus GST)

- On 26 April 2016, a loan for $15 000 will be received from EFC Bank, which will be used to purchase a new van in May 2016.

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- Cash drawings will be $1 500. Drawings of electrical supplies is expected to be $290.

Melinda has stated that if the Cash Budget predicts a balance over $5 000, she will withdraw a further $3 000 to purchase a new motorcycle.

Required

a **Calculate** budgeted GST paid for April 2016.

* b **Prepare** a Cash Budget for Sebastapol Electrics for April 2016.

c **Explain** one reason why Melinda should **not** withdraw cash from the business in April 2016.

d Apart from increasing Drawings, **state** two actions Melinda could take if the Cash Budget for May 2016 predicted a large cash surplus.

EXERCISE 9.4
CASH BUDGETS – CONSECUTIVE PERIODS

WB page 128

Plato Says is a tutoring service run by Socrates Papagiannopoulos, and has provided the following information regarding its expected transactions for October, November December 2016.

- As at 1 October 2016 the business had $2 190 in the bank.
- Tutoring fees are expected to be as follows:

October	$ 1 300	plus GST
November	2 400	plus GST
December	800	plus GST

- Wages of tutors are set at 60% of tutoring fees (excluding GST).
- Administration expenses are usually $275 (including GST) per month.
- Stationery supplies are purchased on account, with the next payment of $350 (plus $35 GST) due in December 2016.
- Advertising of $220 including $20 GST will be paid in October 2016.
- Socrates expects to receive a gift of $1 500 from a relative in November 2016, and is planning to contribute this cash to the business.
- A GST refund of $400 is due in October 2016.
- Socrates plans to take $450 drawings per month.

Required

a **Calculate** budgeted GST paid for October, November and December 2016.

* b **Prepare** a Cash Budget for Plato Says for October, November and December 2016.

c **Explain** one possible reason for the expected fluctuations in tutoring fees over the budget period.

d Socrates has an opportunity to purchase new data projectors at a special price of $2 750 (plus $275 GST), but this offer is only available until the end of October 2016. **Advise** Socrates of the best way to proceed with this purchase.

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EXERCISE 9.5

CASH BUDGETS – CONSECUTIVE PERIODS

WB page 130

Magnificent Mowing provides mowing and gardening services, and has provided the following information regarding expected transactions for July, August and September 2016.

- As at 1 July 2016, Magnificent Mowing had a bank overdraft of $130.
- Gardening fees for July and August 2016 are expected to be $5 000 (plus GST), but fees are expected to grow by 12% in September 2016 due to the coming of spring.
- Mower fuel usually works out to be 20% of gardening fees (excluding GST). GST on the cost of mower fuel must also be paid.
- Wages for the office assistant will be $1 700 per month.
- Advertising in the local paper is paid every three months with the next $450 payment (plus $45 GST) due in September 2016.
- Monthly instalments of $500 are made on a loan, with interest of $320 due in July 2016.
- The owner is planning to purchase new mowers in August 2016 for $1 760 including GST. This will be paid in cash.
- Drawings is usually $850, but the owner is planning to withdraw an extra $600 in September 2016 to make a deposit on a summer holiday.
- A GST settlement of $630 is due in July 2016.

Required

* **a** **Calculate** budgeted GST paid to suppliers for July, August and September 2016.

b **Prepare** a Cash Budget for Magnificent Mowing for July, August and September 2016.

c **State** two actions the owner may take to address the situation predicted to occur in August 2016.

d **Explain** one benefit of preparing budgets monthly rather than for the entire quarter.

EXERCISE 9.6

BUDGETED REPORTS

WB page 132

Chuck Connally operates a personal training business called CC's Gym. Chuck has provided the following estimates for September 2016.

- Gym fees for September 2016 are expected to be $4 900 plus GST.
- Chuck expects that the following expenses will be paid in September 2016:

Wages	$ 2 650	
Venue expenses	840	plus GST
Maintenance of machinery	350	plus GST

- Chuck expects to contribute $5 000 cash to finance the purchase of new weight training equipment. The equipment will cost $6 800 plus GST, which will be paid on 30 September 2016.
- Chuck plans to withdraw $700 in cash during September 2016, and repay $1 200 off the business' loan.

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Required

a **Calculate** budgeted GST paid to suppliers for September 2016.
b **Prepare** a Cash Budget for CC's Gym for September 2016.
c **Prepare** a Budgeted Income Statement for CC's Gym for September 2016.
d **Identify** two reasons why CC's Gym is expecting to suffer a cash deficit despite earning a Net Profit for September 2016. **Explain** your answer.

EXERCISE 9.7
BUDGETED REPORTS

W B page 134

BHM Services is owned and operated by Bob Bevan, and provides general home maintenance services. Its expected transactions for August 2016 are listed below.

- Maintenance fees for July 2016 were $3 850 including GST, but Bob expects that fees will increase 6% in August 2016.
- The following expenses can usually be calculated reliably as a percentage of maintenance fees (excluding GST):

Cleaning materials	20%	plus GST
Wages	50%	

- Fuel for the company van is expected to be $396 including GST.
- Bob expects to take out a business loan for $3 000 in August 2016. This cash will be set aside for the purchase of new cleaning equipment in September 2016.
- Advertising expense of $480 plus GST is paid every month.
- Administration costs amount to $520 plus GST per month.
- Bob only takes drawings of $300 per month.
- A GST refund of $1 300 is expected on 13 August 2016.

Required

a **Calculate** budgeted GST paid to suppliers for August 2016.
b **Prepare** a Cash Budget for BHM Services for August 2016.
c **Prepare** a Budgeted Income Statement for BHM Services for August 2016.
d **Explain** two reasons why BHM Services is expecting to suffer a Net Loss despite generating a cash surplus for August 2016.
e **Suggest** two strategies Bob could employ to improve budgeted Net Profit for August 2016.

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EXERCISE 9.8

CASH BUDGET VARIANCE REPORT

WB page 136

Hair Apparent has provided the following partially complete Cash Budget Variance Report for June 2016.

HAIR APPARENT

Cash Budget Variance Report for June 2016

	$	$	$	$
	Budget	**Actual**	**Variance**	**F/U**
Cash Receipts				
Hairdressing Fees	8 970	9 500		
Capital Contribution	–	2 000		
GST Received	897	950		
Total Cash Receipts	**9 867**	**12 450**		
Less Cash Payments				
Haircare Products	3 500	4 900		
Wages	1 700	2 300		
Advertising	800	950		
Interest on Loan	100	120		
Loan Principal	700	500		
New Hairdryers	–	2 400		
Drawings	1 420	200		
GST Paid	430	825		
Total Cash Payments	**8 650**	**13 195**		
Cash Surplus (Deficit)	**1 217**	**(745)**		
Add Bank Balance at Start (1 June 2016)	**360**	**360**		
Bank Balance at End (30 June 2016)	**1 577**	**(385)**		

The proprietor, Sophie, had organised an overdraft limit with the bank of $1 000.

Required

- **a** **Complete** the Cash Budget Variance Report for Hair Apparent for June 2016.
- **b** **State** one reason why there is no variance for Bank Balance at Start.
- **c** **Suggest** one possible reason for the Capital Contribution.
- **d** **Suggest** one reason for the variance in:
  - Wages
  - Interest on Loan.
- **e** **Explain** how a Cash Budget Variance Report can be used to assist decision-making.

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EXERCISE 9.9
CASH BUDGET VARIANCE REPORT

W B page 138

Huntingdale Plumbing has provided the following extract from its Cash Budget Variance Report for March 2016.

HUNTINGDALE PLUMBING

Cash Budget Variance Report (extract) for March 2016

	Budget	Actual	Variance	F/U
Cash Receipts				
Plumbing Fees		12 000		
Loan – Credit Co-op.	4 000		2 000	
GST Received	1 200	1 300		F
Total Cash Receipts	**17 200**		**1 900**	U
Less Cash Payments				
Plumbing Supplies	6 300	6 300	–	–
Wages		2 100	100	U
Advertising	350	270		
Tools	1 950	1 600	350	F
Drawings	850			
GST Paid	860		43	F
Total Cash Payments		**12 047**	**263**	F

Required

a **Complete** the Cash Budget Variance Report (extract) for Huntingdale Plumbing for March 2016.

b **Explain** whether the Loan variance is favourable or unfavourable.

c Apart from Bank, **identify** two items in the Balance Sheet of Huntingdale Plumbing as at 31 March 2016 that will differ as a consequence of the variances in the Cash Budget Variance Report. **Justify** your answer.

d **Explain** how a Cash Budget Variance Report can be used to assist planning.

EXERCISE 9.10
INCOME STATEMENT VARIANCE REPORT

W B page 140

Easy Motors has provided the following incomplete Income Statement Variance Report for December 2016.

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EASY MOTORS

Income Statement Variance Report for December 2016

	$	$	$	$
	Budget	**Actual**	**Variance**	**F/U**
Revenue				
Service Fees	42 000	48 000		
Less Expenses				
Parts	19 500	21 200		
Wages	3 400	3 900		
Advertising	1 200	2 700		
Rent Expense	970	970		
Total Expenses	**25 070**	**28 770**		
Net Profit (Loss)	**16 930**	**19 230**		

Required

a **Complete** the Income Statement Variance Report for Easy Motors for December 2016.

b **Explain** why there is no variance in Rent Expense.

c Referring to the information provided, **suggest** one reason for the variance in Service Fees. **Justify** your answer.

d **Explain** one reason why the owner should not be overly concerned about the variance in Parts.

EXERCISE 9.11

INCOME STATEMENT VARIANCE REPORT

WB page 141

Hutchesson Consulting has provided the following incomplete Income Statement Variance Report.

HUTCHESSON CONSULTING

Income Statement Variance Report for April 2016

	$	$	$	$
	Budget	**Actual**	**Variance**	**F/U**
Revenue				
Consulting Fees	59 000		5 000	U
Publishing Fees		9 250		
Total Revenue	**68 100**	**63 250**		
Less Expenses				
Wages and Salaries	44 000		1 000	F
Venue Hire	16 000	14 000		
Advertising	2 300		300	
Office Expenses	3 680	3 750	70	U
Interest Expense		450		
Total Expenses	**66 580**		**2 780**	F
Net Profit (Loss)				

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At the start of April 2016, the owner decided to increase Advertising to generate higher revenue.

Required

a **Complete** the Income Statement Variance Report for Hutchesson Consulting for April 2016.
b **Suggest** one action the business may have taken to cause the variance in Interest Expense.
c **Explain** whether the owner's decision to increase Advertising expense was worthwhile.
d **Explain** why the variance in Wages and Salaries is relatively small.
e **Suggest** two strategies Hutchesson Consulting could implement in order to increase its Net Profit.

EXERCISE 9.12
BUDGETED REPORTS

WB page 143

Murray's Music School gives guitar lessons at the local hall, and has provided the following list of expected transactions for July 2016.

- Murray is planning to purchase 10 new guitars in August 2016. A loan has been organised with the Bank of Cook for $6 000, with the cash due to be received on 26 July 2016. A $700 deposit on the purchase of the guitars is due on 28 July 2016, with the remainder of the purchase price due on 3 August 2016 when the guitars are delivered.
- Murray plans to withdraw $600 cash in July 2016.
- Tuition fees were $3 000 (plus $300 GST) in June 2016, but Murray is expecting a 20% increase in July 2016.
- Wages of music teachers amounts to 75% of tuition fees (excluding GST).
- Teaching supplies worth $250 (plus $25 GST) were purchased in May 2016, and Murray estimates that $75 worth of supplies will be consumed in July 2016.
- Advertising of $495 (including GST) will be paid during July 2016 to cover the yearly advertisement in the local directory.
- New sheet music will be purchased on credit for $320 (plus $32 GST) in July 2016.
- Rent on the hall is $500 (plus GST) per month.
- A GST settlement of $1 740 is due in July 2016.
- As at 31 July 2016, Murray expects the business will have $1 825 in its bank account.

Required

a **Explain** why Murray's Music School is required to make a GST settlement in July 2016.
b **Prepare** a Cash Budget for Murray's Music School for July 2016.
c **Explain** why budgets do **not** satisfy the Qualitative Characteristic of *Reliability*.
d Referring to one Qualitative Characteristic, **explain** one benefit of preparing a Cash Budget.

During July 2016 Murray decided to pay $1 000 as the deposit on the guitars, arguing that it would be a favourable variance because it reduced the amount owing for the guitars.

Required

e **Calculate** the variance for deposit on guitars for July 2016.
f Referring to your answer to part 'e', **explain** whether this variance should be classified as favourable or unfavourable.
g **Explain** how a variance report can aid in planning for the future.

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UNIT 2

ACCOUNTING FOR A TRADING BUSINESS

In Unit 2 of the VCE Accounting course, we will cover the following chapters:

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Where are we headed?

After completing this chapter, you should be able to:

- **explain** the importance of appropriate pricing
- **calculate** minimum desired profit
- **calculate** a profit or a loss
- **prepare** a simple Income Statement
- **explain** and **apply** various pricing methods
- **calculate** the mark-up
- **prepare** a cost-volume-profit analysis.

CHAPTER 10

PRICE-SETTING STRATEGIES

KEY TERMS

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

- minimum desired profit
- recommended retail price (RRP)
- competitors' prices
- market reaction
- mark-up
- cost-volume-profit analysis
- break-even point
- variable costs
- fixed costs
- contribution margin.

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10.1 SERVICE VERSUS TRADING FIRMS

In the first part of this text we concentrated on the accounting system as it applied to service businesses. These businesses focused on providing a service in return for a *fee* such as haircuts or lawn mowing. This was the focus of Unit 1. In Unit 2 we will focus on trading firms. Trading firms are businesses that aim to generate profit by selling a good rather than a service; that is, by selling a physical item of stock rather than their time, labour or expertise. These businesses generate *sales* as their revenue instead of fees.

Regardless whether a business is service based or a trading firm, a correct pricing policy is vital to make certain that the business can cover its costs and generate a profit to ensure that it will continue to be a going concern.

REVIEW **QUESTIONS** 10.1

1. **Explain** the difference between how a service firm and a trading business operates or functions.
2. **State** the different form of revenue that a service firm would earn compared to that of a trading business.

10.2 PRICING AND PROFIT

Once a firm has been legally established, has organised its finance and paid for its start-up costs, it is ready to begin trading. At this point the owner needs to make a very important decision: what price should I charge? If prices are set too high, customers may be driven into the arms of the firm's competitors, and insufficient sales will be made. However, if prices are set too low the business may generate plenty of sales, but those sales will not provide sufficient revenue to meet expenses, and the firm will not be able to earn a profit. It is therefore crucial that the owner is able to determine a suitable price that will provide for a profit, and allow the business (and its market share) to expand.

Desired Net Profit

As was indicated in Chapter 3, one of the strongest reasons to become a small business owner is the profit motive. As the manager, the owner would be looking to the business to pay them a wage/salary, and as the owner, they would require some kind of return on their investment in the business. Thus, the owner would have in mind a **minimum desired profit** – a requirement that the business earns a profit comparable with their previous income (usually from paid employment) plus a return similar to what they would have earned had they invested their funds elsewhere.

Minimum desired profit
a lowest acceptable profit figure, usually similar to previous income plus a return on the amount invested

EXAMPLE

Mark Griggs has decided to leave paid employment to go into business. As a grounds keeper he was earning $580 per week, and he has managed to save $15 000, which is currently earning 5% p.a. in a term deposit.

Mark's minimum desired profit as a small business owner would be calculated as is shown in Figure 10.1.

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Figure 10.1 ***Calculating minimum desired profit***

Wage equivalent	\$600 per week × 52 weeks	\$31 200
Desired return on investment	5% × \$15 000	750
Minimum desired profit		**\$31 950**

This desired profit can be broken down into quarterly, monthly or even weekly figures to assist the owner to determine if they are on target to achieve their profit goal.

While it is true that a new small business will have minimal profits (and perhaps even losses) as it establishes itself in the marketplace, the owner has to ensure that the business is achieving a return that makes it worth being the owner. If the proposed business venture cannot meet this goal, then the viability of the business itself is in doubt.

REVIEW QUESTIONS 10.2

1 **Explain** why prices must not be set too high.
2 **Explain** why prices must not be set too low.
3 **State** two reasons why a business owner must set a desired minimum profit.
4 **Show** how the desired minimum profit is calculated.

10.3 PRICING METHODS

There are a variety of methods that can be used to set selling prices, and in practice, prices will be set using some combination of the following strategies:

- recommended retail price
- competitors' prices
- market reaction
- percentage mark-up
- cost-volume-profit analysis.

Recommended retail price

The easiest way for a trading firm to set prices is to adopt the **recommended retail price (RRP)** – the selling price suggested by the manufacturer or wholesaler on goods such as books, magazines and cards. These recommended prices are not mandatory, and it is up to the retailer to decide whether to use them. However, many retailers will use the recommended price, and this may create some pressure to follow suit to ensure that prices remain competitive. It is important to remember that the recommended retail price would be inclusive, that is include, GST.

Recommended retail price (RRP)
a selling price that is recommended by the manufacturer or wholesaler

Competitors' prices

Competitors' prices
prices charged by businesses competing in the same market

Depending on the level of competition in the market, businesses will need to adjust their selling prices to ensure that they are comparable with those set by their competitors. If prices are set too high, then sales will be lost to cheaper competitors and profit will suffer.

Some (particularly larger) businesses are aggressive in their pricing strategies, promising to not only match but better a cheaper advertised price by 10%. Small businesses cannot always compete with this type of market power, and may choose instead to charge a slightly higher price and compete instead on service, expertise, or product range. But even in these cases, they must still be mindful of the prices available elsewhere.

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Market reaction

Market reaction
the response of customers in a particular marketplace to price levels for a particular good or service

Almost regardless of the price recommended by the wholesaler or set by a competitor, the **market reaction** can be a powerful factor in setting prices. If demand is particularly high, then selling prices can be set higher, because customers are so keen to get their hands on the product that they are willing to pay a higher price. This is particularly the case with new and fashionable items, like clothing and technology, or toys before Christmas. On the other hand, if there is no demand at a particular price, the business will have no choice but to discount its prices to generate sales. This can be seen at post-Christmas sales where businesses offer large price reductions to clear stock.

These three techniques for setting selling prices are based more on observation than calculation, and require the owner to be aware of the market in which the business is operating. However, while they may ensure that the firm's prices are competitive and reasonable to the market, setting prices in this way does not ensure that the most basic goal of all – that of earning a profit – will be achieved. For this to occur, the owner must use techniques such as mark-ups or conduct a cost-volume-profit analysis. (See the following pages for a discussion of these techniques.)

REVIEW QUESTIONS 10.3

1 **List** the various techniques which can be used by a small business to set selling prices.
2 **State** two reasons in favour of using recommended retail price.
3 **State** one reason why recommended retail price cannot be used to set all prices.
4 **Explain** why it is important to account for the prices charged by competitors.
5 **Explain** how the reaction of the market can lead to:
   - increased selling prices
   - decreased selling prices.
6 **Explain** one limitation of relying on recommended retail price, competitors' prices and the market reaction to set prices.

10.4 MARK-UP

Mark-up
determining selling prices by adding to the cost price a predetermined profit margin

When costs are well defined and the owner knows the return they want to achieve on a product, then a **mark-up** can be applied to the cost price. A mark-up is a predetermined profit margin (expressed as a set amount, or a percentage of the cost price) that is added to the cost price of a product to determine its selling price. Figure 10.2 shows the formula for calculating selling prices using a percentage mark-up.

Figure 10.2 ***Applying a percentage mark-up***

Selling price = Cost price × (1 + mark-up /100)

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EXAMPLE

Funk Fashions purchased 200 hats for $30 each, and wishes to sell them at a 50% mark-up.

The mark-up price would be determined as follows:

Mark-up price	=	$30 × (1 + 50/100)
	=	**$45**

Funk Fashions would then need to add GST to this amount to determine the price the customer will be required to pay.

The final selling price would be determined as follows:

Selling price	=	mark-up price + 10% GST
	=	$45 + $4.50
	=	**$49.50**

In businesses such as those that sell electronic or white goods, knowing the mark-up on particular products allows sales staff to discount selling prices to generate sales, while still maintaining a minimum profit margin.

STUDY TIP

To calculate the cost price when given the selling price, use the same formula but work backwards. However, remember to remove any GST first!

REVIEW QUESTIONS 10.4

1 **Define** the term 'mark-up'.
2 **Explain** the circumstances in which it would be appropriate to use a percentage mark-up to set selling prices.
3 **Show** the formula for calculating selling prices using a percentage mark-up.
4 **State** what must be added to the mark-up price to determine the final selling price for customers.

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10.5 COST-VOLUME-PROFIT ANALYSIS

At various times during this chapter we have considered the implications of price setting on the 'law of demand'. This law of economics states that as selling prices rise, demand – or sales volume – will decrease, but as selling prices decrease, demand will increase. At the same time, as the volume of sales increases, so too will some costs (such as the total cost of purchasing the goods that are sold). This means there is a relationship between selling prices, cost prices, and the volume of sales (the quantity sold), and this relationship is reflected in a cost-volume-profit analysis. A **cost-volume-profit analysis** can be used to determine the quantity of products a business may need to sell, or the selling price it must charge, to break even. (The **break-even point** is where the business neither makes a profit or a loss – profit is zero.)

Cost-volume-profit analysis
an analysis tool that allows a business to determine a selling price or volume of sales that will let them achieve a specific profit goal

Break-even point
the level of sales where total revenue equals total expenses and the business makes neither a profit nor a loss

Fixed and variable costs

Because a cost-volume-profit analysis assesses the relationship between costs and volume of sales, it is important to distinguish between costs that vary with the volume of sales, and those that do not.

Variable costs

Variable costs are costs that vary in total directly with the volume of sales. They are expressed as per unit cost because every time a unit is produced and sold, the total cost incurred increases. For example, if it costs $40 to make one cabinet, it will cost $80 to make two, $200 to make five, and so on. The cost of ingredients in a pizza, or the cost of the parts used in making a product would be considered to be variable costs because if no goods are sold, no costs are incurred.

Variable costs
costs that vary directly with the level of activity

Fixed costs

Fixed costs are those that do not vary with the volume of sales, meaning they remain the same regardless of any change in the level of activity. The most common examples of fixed costs are items such as rent, insurance and salaries, which are based on a period of time rather than a number of sales.

Fixed costs
costs that do not vary with the level of activity

Just because costs like these are said to be fixed does not mean they will never change. Rather, they are independent of the volume of sales. Further, they are usually fixed within certain parameters such as:

- *Time* – A cost is usually only fixed for a specified period of time and when this period expires the cost may change. (Once the change occurs the cost will again be fixed for a specified period of time.) Rent is a good example of this. It is normally fixed for the contractual period but when that time is up, the rent price can be renegotiated and then it is fixed again for the length of the new contract.
- *Range of activity* – A cost is usually only fixed for a specified range of activity, and if the volume of sales exceeds that range, the cost may change. Rent can also be used as an example in this case. If the premises the business owner is renting allows for the production and sale of 100 units per month and then he or she wants to expand production and sales to 200 units per month they will have to upgrade to a bigger premises. This will result in a changed cost.

STUDY TIP

Fixed costs are usually expressed in units of time whereas variable costs are expressed on a per unit basis.

Cost-volume-profit formula

Figure 10.3 shows the formula which combines all this information in a cost-volume-profit analysis.

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Figure 10.3 ***Cost-volume-profit formula***

$$\textbf{Quantity to be sold} = \frac{\textbf{Total Fixed Costs + Profit}}{\textbf{Selling price per unit – Variable cost per unit}}$$

This formula calculates how many products need to be sold in order for the business to earn a certain profit, and at break-even point (where revenues equal expenses) that profit is zero.

The bottom line of the equation calculates how much gross profit is generated from every item that is sold. This gross profit per item, or **contribution margin**, is what will be available to meet the fixed costs and provide for profit.

(It should be noted that this formula assumes that costs can be clearly identified as variable and fixed, that selling prices and all costs will remain constant, and that all goods produced will be sold. If these assumptions do not hold, the formula is less useful.)

Contribution margin the Gross Profit from each sale that goes towards covering fixed expenses and contributing to Net Profit; calculated by deducting variable costs from the selling price

EXAMPLE

Terry Wilson makes birdhouses. He has done some preliminary costing, and has come up with the following estimates:

Rent of factory space	$300	plus $30 GST	per week
Timber	$9.90	including $0.90 GST	per birdhouse
Varnish and paint	$4.40	inclusive of GST	per birdhouse
Hire of market stall	$60	plus GST	per week
Transport costs	$40	plus $4 GST	per week
Nails, screws, handles etc.	$2.20	including $0.20 GST	per birdhouse

Terry plans to sell each birdhouse for $27.50 inclusive of GST.

STUDY TIP

Make sure that GST is removed from your selling price and variable and fixed costs before you put them into the equation.

Remember when determining costs that GST is not an expense and must be excluded from the calculation.

The variable cost of each birdhouse would be calculated as follows:

Timber	$9	per birdhouse
Varnish and paint	4	per birdhouse
Nails, screws, handles etc.	2	per birdhouse
Total variable costs	**$15**	**per birdhouse**

The total fixed costs would be calculated as follows:

Rent of factory space	$300	per week
Hire of market stall	60	per week
Transport costs	40	per week
Total fixed costs	**$400**	**per week**

STUDY TIP

Make sure that all fixed costs are expressed in the same unit of time – that is, per week, per month or per year.

Substituting these figures into the cost-volume-profit formula allows us to calculate how many birdhouses Terry would need to sell in one week to break even.

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Remember that the selling price was inclusive of GST so we need to remove the GST element as this cannot be included as revenue. We do this as follows:

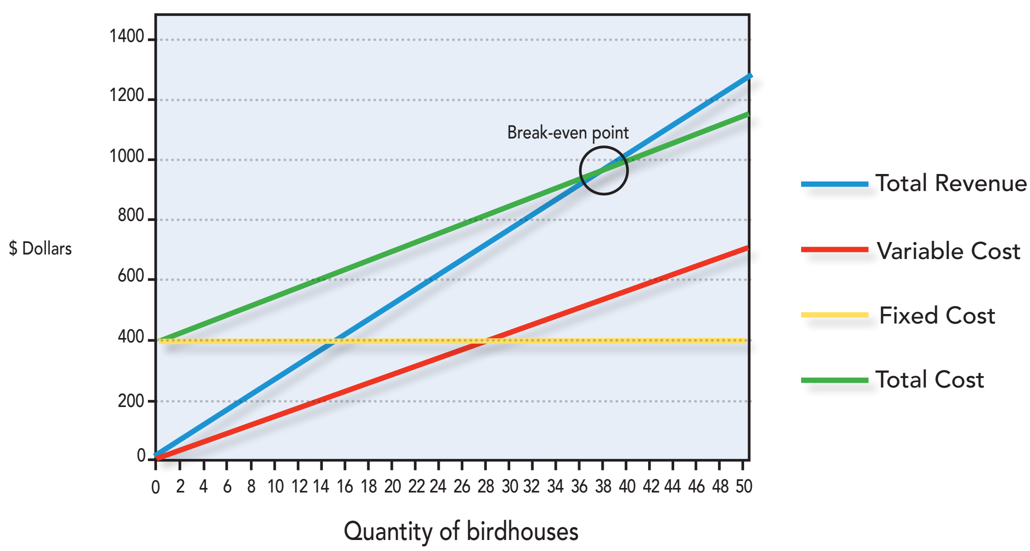
GST inclusive price × 10/11 = selling price excluding GST

Therefore \$27.50 × 10/11 = \$25
or we can just divide the GST inclusive selling price by 11 to determine the GST amount and subtract that from the GST inclusive price:
\$27.50/11 = \$2.50
\$27.50 – \$2.50 = \$25
Therefore the sales figure we use in this calculation is \$25.

Quantity to be sold	=	Total fixed costs + Profit / Selling price per unit – Variable cost per unit
	=	\$400 + \$0 profit / \$25 – \$15
	=	\$400 / **\$10**
	=	**40 birdhouses**

In this example, Terry will earn a contribution margin of **\$10** per birdhouse. Therefore in order to make enough gross profit to meet his fixed costs of \$400 per week and break even, he will have to sell 40 birdhouses each week. If he sells more than 40, a profit will result; if fewer than 40 are sold, it will lead to a loss. This can be highlighted graphically as shown in figure 10.4.

Figure 10.4 ***Cost-volume-profit graph indicating break-even point***



The total revenue line indicates the sales revenue generated as each unit is sold. Notice that the more units that are sold the higher the sales revenue line goes. As this occurs, the variable cost line is also increasing as the total variable cost is dependant on the level of sales. The fixed cost line is completely flat, as this cost does not change in relation to the level of activity.

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The total cost line is a combination of the fixed cost line plus the variable cost line. You can see that the variable cost line and the total cost line are parallel. This is because the variable cost line has been lifted up by the amount of the fixed cost. This is why the total cost line starts at the fixed cost amount. If there is no activity, variable costs would be zero but the fixed costs (which are independent of activity) will still be present and need to be paid. The point where the total revenue line crosses the total cost line is the break-even point. This occurs, as we calculated, at 40 birdhouses.

Sales revenue

If Terry sells 40 birdhouses, this will generate $1 000 worth of sales revenue, calculated as shown in Figure 10.5.

Figure 10.5 ***Calculating sales revenue***

Sales revenue	=	Selling price × Quantity to be sold
	=	$25 × 40 birdhouses
	=	**$1 000**

The fact that he will earn $1 000 revenue does not mean he will make $1 000 profit: this revenue must be used to meet the total fixed costs of $400, and the total variable costs ($15 per birdhouse × 40 birdhouses = $600), leaving him with an actual profit of zero (which means he will break even, which is what we had calculated would occur in the first place).

Earning profit

The earlier example showed how the formula can be used to calculate the quantity of units which must be sold to break even. However, the whole point of owning a small business is to earn a profit, so the owner is probably more interested in how many units must be sold to earn the minimum desired profit. This can be done using the same cost-volume-profit formula.

Let's assume that Terry has a desired profit of **$500** per week. The calculation of how many birdhouses would need to be sold to earn this profit is shown as follows.

$$\textbf{Quantity to be sold} = \frac{\$400 + \$500}{\$25 - \$15} = \frac{\$900}{\$10} = \textbf{90 birdhouses}$$

Therefore, 90 birdhouses would have to be sold per week for Terry to achieve his desired profit of **$500** per week. (Note how this figure is higher than the number that was required to break even.)

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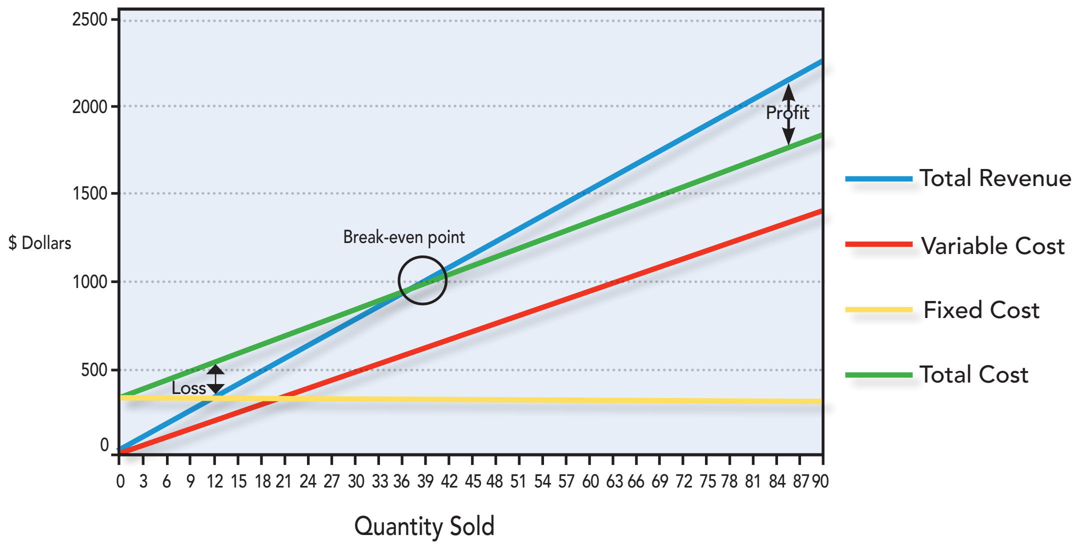
A profit will be made as soon as the total revenue line crosses the total cost line as shown in Figure 10.6.

Figure 10.6 ***Cost-volume-profit graph indicating profit margin***



While the total revenue line is below the total cost line the business is making a loss, as the amount from sales is not sufficient to cover the variable and fixed costs. Once the total revenue line crosses the total cost line it has broken even and then can go on to make profit. The greater the distance the total revenue line is above the total cost line, the greater the profit made.

REVIEW QUESTIONS 10.5

1 **Define** the following terms:
- break-even point
- variable cost
- fixed cost
- contribution margin.

2 **State** two reasons why a fixed cost is not always fixed.
3 **Show** the formula used to conduct a cost-volume-profit analysis.
4 **Explain** what will occur if sales are:
- above the break-even point
- below the break-even point.

5 **List** the three assumptions underlying the cost-volume-profit formula.
6 **Show** the formula used to calculate sales revenue.
7 **Explain** why sales revenue and profit are not the same.

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10.6 APPLYING COST-VOLUME-PROFIT ANALYSIS

Determining selling prices

In some cases the owner will have a good idea of how many units can be sold, but will be unsure about what selling price to charge. The same cost-volume-profit formula can be used, but solved for a different value.

Let's assume that Terry thinks he can sell 50 birdhouses per week, but wants to know what selling price he should charge to earn his desired profit of $500. The calculation is shown below.

Figure 10.7 ***Calculating selling price***

$$\mathbf{50} = \frac{\$400 + \$500}{\text{Selling price} - \$15}$$

$$(\text{Selling price} - \$15) \times 50 = \$900$$

$$\text{Selling price} - \$15 = \frac{\$900}{50}$$

$$\text{Selling price} - \$15 = \$18$$

$$\textbf{Selling price} = \$18 + \$15$$

$$= \mathbf{\$33\ per\ birdhouse}$$

STUDY TIP

As a short-cut swap 'SP – VC' and 'Q' to solve the equation.

Thus the new selling price would have to be $33 plus $3.30 GST making it $36.30 per birdhouse for Terry to sell **50** and still achieve his desired profit of $500.

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The Income Statement

The information generated by a cost-volume-profit analysis can be presented as an accounting report called an Income Statement. This report details the Sales revenue the business has earned, and the costs or expenses it has incurred in the process. Figure10.8 shows the Income Statement for Terry's Birdhouses for the first week of March 2016. It assumes that 50 birdhouses were sold at $36.30 including $3.30 GST each.

Figure 10.8 ***Income Statement***

TERRY'S BIRD HOUSES

Income Statement for first week of March 2016

Sales revenue ($33 per birdhouse × 50 bird houses sold)			$1 650
Less total variable costs ($15 per birdhouse× 50 birdhouses sold)			750
Variable profit ($18 per birdhouse × 50 birdhouses sold)			**900**
Less	Fixed costs		
	Rent of factory space	300	
	Hire of market stall	60	
	Transport costs	40	400
	Net Profit (or Loss)		**$500**

The variable profit, or Gross Profit, can be determined either as the difference between the sales revenue ($1 650) and the total variable costs ($750), or the contribution margin per item ($18) multiplied by the number of items sold (50). Both should derive the same answer.

Combining methods

It is clear that there is no one price-setting method that can guarantee success, so each owner has to take into account a variety of pricing options when determining selling prices. A business may use a specific mark-up as a starting point for certain products; however, they would then have to consider what competitors are charging, or look at the conditions in the marketplace and adjust their prices accordingly. A business conducting a cost-volume-profit analysis would face a similar situation. The aim is to set a price that will attract as many customers as possible, and generate as much profit per item as possible, to cover expenses and provide for enough net profit to satisfy the owner's objective.

REVIEW QUESTIONS 10.6

1. **Explain** what is reported in an Income Statement.
2. **Show** how each of the following figures in the Income Statement is calculated:
   - sales revenue
   - total variable costs
   - variable profit.
3. Using at least two examples, **explain** why it is usual to use more than one pricing method.
4. **Explain** why GST is not included in the cost-volume-profit calculation and Income Statement.

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WHERE HAVE WE BEEN?

- Correct pricing is essential to provide for a profit, and allow the business (and its market share) to expand.
- Selling prices can be set using recommended retail price, competitors' prices, market reaction, percentage mark-up, a cost-volume-profit analysis, or some combination of these methods.
- When costs are well-defined and the owner knows the return he or she wants to achieve on a product then a mark-up can be applied to the cost price.
- The relationship between selling prices, cost prices, and the volume of sales (the quantity sold), is reflected in a cost-volume-profit analysis, which can be used to determine the quantity of products a business may need to sell, or the selling price it must charge, to break even.
- Variable costs vary directly with the volume of sales; fixed costs do not.
- The information generated by a cost-volume-profit analysis can be presented as an accounting report called an Income Statement and this can also be represented in a graph.

EXERCISES

EXERCISE 10.1
PERCENTAGE MARK-UP

WB page 148

Crosstown Tyres has just purchased some stock which it will fit to customers' cars. The tyres and their cost prices are listed below.

• A16 MaxiGrip	$120	plus $12 GST each
• Roadrunner 1600	99	inclusive of GST each
• Mudrunner 2400	154	including $14 GST each

Required

a **Calculate** the selling price of each type of tyre if a mark-up is applied at:
- 40%
- 50%
- 100%

(You may wish to present this information as a table.)

b **State** two reasons why it may be necessary to apply a different percentage mark-up to each line of stock.

EXERCISE 10.2
PERCENTAGE MARK-UP

WB page 149

Arctic Ski Gear has provided the following information relating to some of its stock.

• Viewmaster goggles	Selling price $80 plus $8 GST (mark-up 60%)
• Blinder jackets	Selling price $330 including $30 GST (cost price $200 plus $20 GST)
• Yeti boots	Cost price $165 inclusive of GST, mark-up 40%.

Required

a **Calculate** the cost price of Viewmaster goggles.
b **Calculate** the percentage mark-up applied to Blinder jackets.
c **Calculate** the selling price of Yeti boots that include GST.
d **Explain** why not all businesses can use a percentage mark-up to set selling prices.

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EXERCISE 10.3
COST-VOLUME-PROFIT ANALYSIS

WB page 150

Ryan King is the owner and operator of King's Desks, a small business that makes and sells children's desks. Ryan has identified the following costs relating to the production of the desks.

- Rent of premises — $700 plus GST per month
- Administration expenses — $220 including $20 GST per month
- Electricity — $330 inclusive of GST per month
- Materials — $40 plus $4 GST per desk
- Glue — $44 inclusive of GST makes 5 desks
- Varnish — $2.20 including $0.20 GST per desk

Each desk sells for $75 plus GST and Ryan wants to earn $400 profit per month.

Required

a **Calculate** the variable cost of one desk.
b **Calculate** the fixed costs per month.
c **Calculate** the number of desks Ryan will need to sell per month in order to break even.
d Referring to your answer to part 'c', **calculate** the sales revenue the firm will earn if this level of sales is achieved.
e **Calculate** the number of desks Ryan will need to sell per month in order to earn his desired profit.
f **Calculate** the selling price including GST Ryan would have to charge to earn his desired monthly profit if he could only sell 50 desks in a month.
g Referring to your answer to part 'f', **explain** how profit may be adversely affected if Ryan charges more than this as his selling price.

EXERCISE 10.4
COST-VOLUME-PROFIT ANALYSIS

WB page 152

Molly Sprout earned $8 400 a year as a part-time florist, but her passion is pottery so at the end of 2015 she withdrew her savings of $6 000 (which was earning 10% interest p.a.) in order to start a small business selling her pots. She expects to charge $25 plus GST per pot and has estimated the following costs:

- Paint — $3.50 plus $0.35 GST per pot
- Clay — $495.00 including $45 GST makes 100 pots
- Firing (in the kiln) — $0.55 inclusive of GST per pot
- Rent of studio — $500.00 plus $50 GST per month
- Brushes — $15.00 plus GST for ten (one per pot)
- Hire of market stall — $55.00 including $5 GST every Sunday
- Wage for assistant — $30.00 every Sunday
- Lighting — $70.00 plus $7 GST per month
- Business cards — $132.00 GST inclusive per year

There are four markets per month, and Molly thinks she can sell 90 pots per month.

Required

a **Calculate** the variable cost of one pot, and the monthly fixed cost.
b **Calculate** the number of pots Molly must sell each month to break even.
c **Calculate** Molly's minimum monthly desired profit.

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d **Calculate** the number of pots that Molly must sell each month to earn her desired profit.
e Referring to your answer to part 'd', **explain** the problem Molly is likely to encounter.
f **Calculate** the selling price (plus GST) Molly should charge for each pot in order to earn her desired monthly profit.

EXERCISE 10.5
COST-VOLUME-PROFIT ANALYSIS

WB page 154

Harry Harcourt has been working in a skateboard factory for the past three years. He is very skilful in his job and many of his friends and family have called on him to make skateboards in his neighbour's rented garage on weekends. Harry has estimated the following costs.

• Fibreglass frame	$145 plus $14.50 GST per skateboard
• Administration costs	$88 including $8 GST per month
• Protective non-slip coating	$5.50 GST inclusive per skateboard
• Electricity	$120 plus GST per month
• Wheels and metal frame	$20 plus $2 GST per skateboard
• Rent of garage	$2 400 per year

The estimated selling price for each skateboard is $220 plus $22 GST and Harry is hoping to earn an annual profit of $1 800.

Required

a **Define** the term 'variable cost'.
b **Calculate** the variable profit per skateboard.
c **Define** the term 'break-even point'.
d **Calculate** how many skateboards need to be sold in order to achieve the desired monthly profit.
e **Calculate** the sales revenue required to achieve the desired monthly profit.

The manufacturer of the skateboard wheels and metal frame (not the fibreglass frame) has decided to increase prices by 10%. Harry believes that he can sell 10 skateboards a month and make $200 profit. (Assume that all other costs remain the same.)

Required

f **Calculate** the new selling price including GST required to earn the predicted profit.
g **Explain** how an increase in selling price could lead to a decrease in profit.

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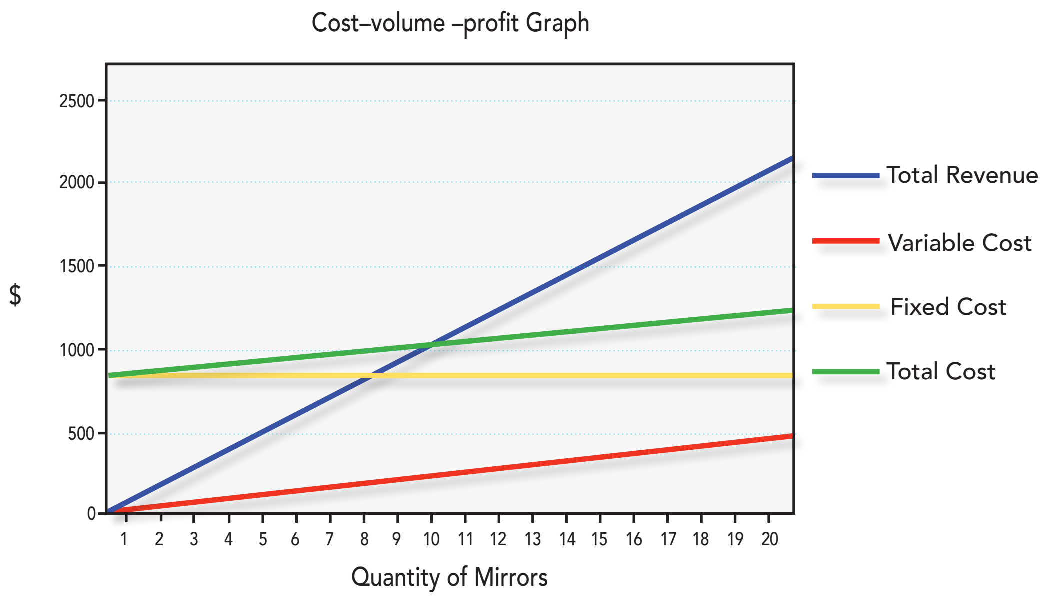
EXERCISE 10.6
COST-VOLUME-PROFIT GRAPHS

WB page 156

Andrew's business, Mirror Image, makes mirrors. The following graph has been created by his accountants.
Please note that the figures used in the graph do not include GST.



Required

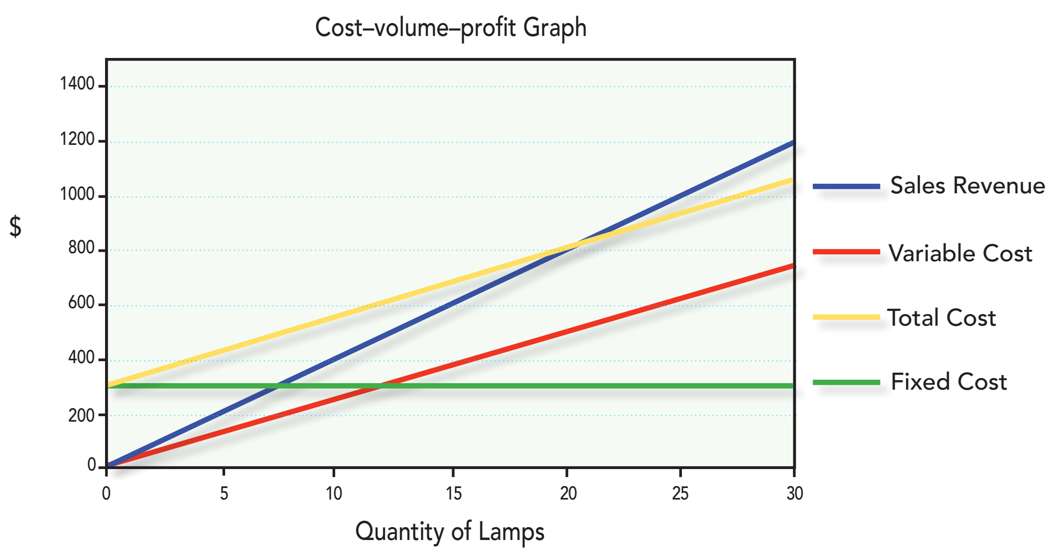
a **Calculate** the sale price for one mirror including GST.

b **State** the amount of mirrors Andrew needs to sell in order to break even. **Justify** your response.

EXERCISE 10.7
GRAPHS

WB page 157

Phil Sparkey creates and designs his own funky lamps, called Psychedelic Lights and has provided the following data for the month:
Please note that the figures used in the graph do not include GST.



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Required

a **Determine** the following from the graph:
- break-even point (in units)
- break-even point (sales revenue)
- sales price per unit (excluding GST)
- total fixed cost.

b **Calculate** the variable cost per lamp.

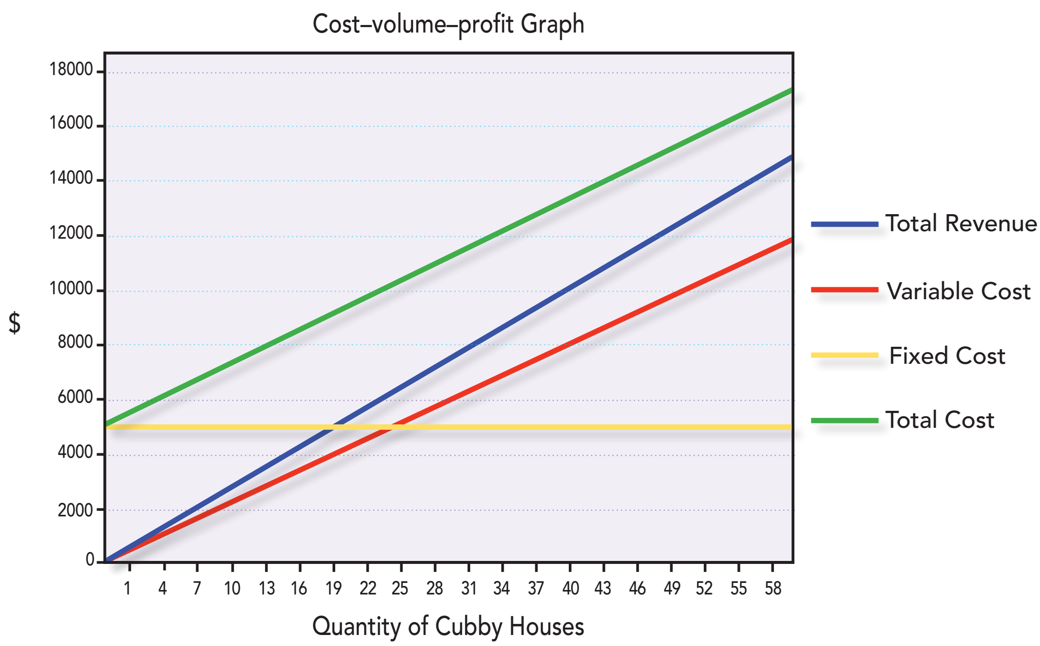
EXERCISE 10.8

page 158

GRAPHS

Simone Cipriotti builds and sells cubby houses. Her business is called Minor Manors. The following graph was provided of her business' performance for the year.

Please note that the figures used in the graph do not include GST.



Required

a If Simone can only make 60 cubby houses a year, **explain** whether a profit or loss has been made by the business.

b **Discuss** two ways Simone could improve the performance of her business.

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EXERCISE 10.9
INCOME STATEMENT

page 159

Kapila Neelaweera is the owner and operator of Candle Power, a small business that sells candelabras. The Income Statement for April 2016 showed the following.

CANDLE POWER

Income Statement for April 2016

	Sales	$9 450	
Less	Variable Costs	4 050	
	Variable Profit	**5 400**	
Less	**Fixed Costs**		
	Wages	1 000	
	Advertising	500	
	Rent	900	2 400
	Net Profit (Loss)		**$3 000**

Each candelabra costs $15 plus GST to purchase and sells for $35 plus GST.

Required

a **Define** the term 'fixed cost'.

b **Calculate** the number of candelabras sold in April 2016.

c **Calculate** the number of candelabras Candle Power must sell each month in order to break even.

Kapila has decided that in order to earn his desired profit of $4 000 per month he must increase his selling price. He thinks he can probably sell 200 candelabras per month if prices rise, but advertising may have to increase.

Required

d **Calculate** the selling price (excluding GST) Kapila must charge in order to earn his desired profit.

e **State** the effect (increase/decrease/no effect) of an increase in advertising on each of the following items:
- contribution margin
- break-even point (in units).

EXERCISE 10.10
INCOME STATEMENT

page 160

Wally White operates Flying High, a kite shop in the windy northern suburb of Greenvale, and has provided the following Income Statement for May 2016.

FLYING HIGH

Income Statement for the month ended 31 May 2016

	Sale of kites	$1 800	
Less	Cost of kites	1 000	
	Variable Profit	**800**	
Less	Other Expenses		
	Wages	500	
	Electricity	80	
	Rent	300	880
	Net Loss		**$(80)**

During May, the shop sold 50 kites all at the same price.

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Required

a **Calculate** the selling price charged for each kite including GST.
b **Calculate** the variable profit (contribution margin) per kite.
c **Calculate** how many kites the shop would have had to sell during May in order to break even.
d **Calculate** the revenue earned at this level of sales.
e Apart from percentage mark-up and cost-volume-profit analysis, **state** two other methods of price setting that would be suitable for Wally's business.
f **Calculate** the percentage mark-up used by Wally in May 2016.
g Wally has been notified that the rent on the shop will be $400 a month as from 1 June 2016, and that wages will increase by 5% from that date. **Calculate** how many more kites have to be sold in order to break even. (Assume that the selling price remains the same.)

EXERCISE 10.11
COST-VOLUME-PROFIT ANALYSIS

WB page 162

Jerome Wishart makes garden benches from his home under the imaginative business name of Jerome's Garden Furniture. The Income Statement for January 2016 showed the following.

JEROME'S GARDEN FURNITURE

Income Statement for January 2016

	Sales revenue	$15 000
Less	Total variable costs	6 000
	Variable Profit	**9 000**
	Net Profit	**$2 000**

Jerome has stated that each garden bench costs $40 to make (this includes the cost of timber, paint and screws).

Required

a **Define** the term 'fixed costs'.
b **Calculate** fixed costs for January 2016.
c **Calculate** the number of benches sold in January.

Projections for February 2016 suggest that variable costs will remain at $40 per bench, but that fixed costs will be $4 500. Jerome is planning to sell each bench for $90 plus $9 GST, and hopes to make a profit of $3 000 for the month.

Required

d **Define** the term 'break-even point'.
e **Calculate** the contribution margin on each bench.
f **Calculate** how many benches the firm must sell in February 2016 to break even.
g **Calculate** how many more benches the firm must sell in February 2016 to earn the desired profit.
h Assuming that the firm can sell 100 benches, **prepare** an Income Statement for February 2016.
i Assuming that Jerome could sell 60 benches and all other costs remained the same, **calculate** the selling price that would need to be charged to break even.

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EXERCISE 10.12
COST-VOLUME-PROFIT ANALYSIS

WB page 164

Sophie Andronaco is considering starting her own business selling small children's fairy costumes at the local kindergarten's car boot sale that is held twice a month. Sophie is not sure what price to charge for her costumes. She was told by some of her friends that she should consider calculating the cost-volume-profit point in order to determine an appropriate selling price for her product. Sophie has managed to calculate the following estimated figures relating to the new project.

Estimated selling price	$33 including $3 GST per costume
Rent of car park space	$1 200 per year
Assistant's wages	$50 a month
Material for costumes	$13.20 including GST each
Fairy wings and wand	$7.50 plus GST per costume
Advertising in the local paper	$44 including $4 GST a month
Sparkles for wings	$5 plus $0.50 GST for 10 costumes
Transport costs	$10 plus GST each car boot sale

Required

- **a** **Explain** to Sophie the function of a cost-volume-profit analysis.
- **b** **Distinguish** between the terms 'variable cost' and 'fixed cost'.
- **c** **Calculate** the variable cost per costume.
- **d** **Calculate** the monthly fixed costs.
- **e** **Calculate** the number of costumes Sophie will have to sell each month in order to break even.
- **f** **Calculate** the revenue earned at this level of sales.
- **g** **Calculate** the number of costumes Sophie will have to sell each month in order to achieve a desired profit of $100.

Sophie estimates that 100 costumes can be sold in a month.

Required

- **h** **Calculate** the price she would have to charge to her customers to achieve this level of sales and the desired profit of $100, which includes GST.
- **i** If Sophie's supplier of wings and wands increased their prices to $8.75 plus GST each, **state** the effect (increase/decrease/no effect) on the following (assume that all other prices remain constant):
  - contribution margin
  - break-even point (in units).

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Where are we headed?

After completing this chapter, you should be able to:

- **explain** the operations of a trading business
- **explain** the importance of stock to a trading business
- **define** and **classify** stock
- **explain** the perpetual inventory system
- **record** transactions in stock cards using the First In, First Out method of stock recording
- **explain** the role of a physical stocktake
- **identify** and **record** stock losses and gains.

CHAPTER 11

TRADING FIRMS AND STOCK

KEY TERMS

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

- trading firms
- stock
- perpetual inventory system
- stock card
- sales
- purchases
- Cost of Sales
- Gross Profit
- First In, First Out (FIFO)
- stocktake
- stock loss
- stock gain.

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11.1 TRADING FIRMS AND STOCK

Trading firms
a business which aims to generate profit by purchasing goods and then selling them at a higher price

Stock
goods purchased by a trading firm for the purpose of resale at a profit

Trading firms purchase goods from suppliers/wholesalers and then sell them to customers at a higher price, with the difference between the cost price and the selling price earning them profit. These goods that are sold are, from the trading business' point of view, referred to as **stock**.

The importance of stock

Stock is crucial to the success of a trading business for two main reasons:

1 Sale of stock is the main source of revenue for a trading firm, and thus the key to its ability to earn profit.
2 Stock is likely to be one of the most significant assets in the Balance Sheet of a trading business.

In light of its importance, it is imperative that the owner has useful information relating to stock. But when we refer to stock, what do we mean? Stock is the generic term applied to the goods held by a trading firm for the purposes of resale. Items such as office furniture, shelving and vehicles are not stock for most businesses, as they are intended for use rather than sale. (Although the business may ultimately sell these items, it is not their intended purpose when they are purchased.) The term 'stock' therefore is only used to describe goods that are purchased expressly for the purpose of resale.

STUDY TIP

Stock can also be called inventory, product or merchandise, but this text will use the term 'stock'.

As it is intended for sale – hopefully within the next 12 months – stock is classified as a *current asset* in the Balance Sheet. That is, it is a resource controlled by the business that will provide a future economic benefit (when it is sold) within the next 12 months. This definition also distinguishes stock from other goods – such as office furniture, shelving and vehicles – as these items would normally be kept for more than 12 months, and so are classified as *non-current assets*.

The intention of the business at the time of purchase also means that what is stock for one business may well be a non-current asset for another. For example, a clothing shop would not classify a delivery van as stock, but rather as a non-current asset. However, in a car yard, delivery vans could very well be considered stock and therefore classified as a current asset. The clothing shop intends to use the van, for more than 12 months, whereas the car yard intends to sell the van, within 12 months.

REVIEW QUESTIONS 11.1

1 **Explain** the operations of a trading firm.
2 **State** two reasons why stock is important to a trading firm.
3 **Define** the term 'stock'.
4 **Explain** how stock is classified in the Balance Sheet.

11.2 ACCOUNTING FOR STOCK

Perpetual inventory system
system of accounting for stock that involves the continuous recording of stock movements in stock cards

Stock card
a subsidiary accounting record that records each individual transaction involving the movement in and out of the business of a particular line of stock

Because of the need to account for stock, the accounting system we have used so far must be developed so that it can be used for trading businesses. At the recording stage, this will be done by introducing the **perpetual inventory system**. This system of accounting for stock involves the continuous recording of all stock movements in subsidiary accounting records called **stock cards**, with a separate stock card maintained for each individual line of stock.

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After all the stock transactions have been recorded in stock cards, the business will then conduct a stocktake to verify that the stock cards are accurate, and in the process detect any stock losses or gains.

In the reporting stage, the need to account for stock will necessitate a change to the way the Income Statement is presented so that it shows both Gross Profit and Net Profit. (This will be explained in detail in Chapter 12.)

Purchases and sales

The fact that trading firms sell stock rather than provide a service also means a small change in accounting terminology. Service businesses refer to their revenue as 'fees' or 'takings', but a trading business will refer to its main source of revenue as **Sales**. After all, this is what a trading business does – it makes sales. The other change in accounting terminology concerns the term **Purchases**, which for a trading firm refers exclusively to purchases of stock.

Sales
the revenue earned by a trading firm from the sale of stock

Purchases
the stock bought by a trading firm for the purposes of resale

Purchases

As we have already noted, stock is classified as a current asset because it represents a future economic benefit controlled by the business, which is expected to be sold within 12 months. This means that when a business makes a cash purchase of stock, it is actually swapping one current asset (Bank) for another (Stock). The GST paid to the supplier is not part of the valuation of stock because the benefit will not be realised when the stock is sold, but when the GST payable (or receivable) is settled.

EXAMPLE

Bill's Beds purchased stock from Dilnott Industries for $2 000 plus $200 GST. (Ch. 312).

In terms of the accounting equation, this means:

Figure 11.1 ***Cash purchase: effect on the accounting equation***

	Increase/Decrease/No effect	Amount $
Assets	**Decrease** (increase Stock $2 000, decrease **Bank $2 200**)	**200**
Liabilities	**Decrease (GST payable)**	**200**
Owner's Equity	**No effect**	

Sales

When stock is sold, the business will receive cash for the sale, and this sales figure will be recorded as *revenue*, because it is an inflow of economic benefits (cash) in the form of an increase in assets (Bank), thus increasing owner's equity. This amount will be recorded at selling price.

However, at the same time cash is flowing *in* to the business, stock is also flowing *out*; this means that the stock is no longer an asset, because it is gone! In fact, the provision of stock to the customer creates an *expense* called **Cost of Sales** – an *outflow* of an economic benefit (the stock that has been sold) in the form of a decrease in assets (Stock), thus decreasing owner's equity. This amount will be recorded at cost price; that is, the original price paid for the stock by the business.

Cost of Sales
the expense incurred when stock flows out of the business due to a sale

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Gross Profit
the profit earned purely from the purchase and sale of stock, measured by deducting Cost of Sales from Sales revenue

Thus a sale of stock leads to an increase in Bank (due to the cash – and GST – received from the customer), sales revenue increases, and GST payable increases. At the same time, Stock decreases and Cost of Sales increases by the value of stock sold.

The difference between the sales revenue earned (recorded at selling price) and the Cost of Sales incurred (recorded at cost price) will be the **Gross Profit** earned on the sale.

EXAMPLE

Bill's Beds sold one bed for $700 plus $70 GST (Rec. 55).The bed had a cost price of $500.

As a consequence of this sale, Bill's Beds would receive **$770** in cash; $700 from Sales revenue and $70 GST it collects on behalf of the ATO. At the same time, Stock on hand would decrease by $500, creating an expense called Cost of Sales of $500.

In terms of the accounting equation, this means:

STUDY TIP

At the time of a sale, an asset (Stock) becomes an expense (Cost of Sales).

Figure 11.2 ***Cash sale: effect on the accounting equation***

	Increase/Decrease/No effect	Amount $
Assets	**Increase** (increase **Bank $770**, decrease Stock $500)	270
Liabilities	**Increase (GST payable)**	70
Owner's Equity	**Increase (Sales $700 less Cost of Sales $500 = Profit)**	200

REVIEW QUESTIONS 11.2

1 Referring to the perpetual inventory system, **explain** the role of a:
- stock card
- stocktake.

2 **Define** the term 'purchases' as it applies to trading firms.

3 **Explain** how the sale of stock decreases an asset but increases an expense.

4 **State** the effect on each element of the accounting equation of a:
- cash purchase of stock
- cash sale of stock.

STUDY TIP

A line of stock does not mean a single item, but rather a specific type, colour or size, for which there may be a number of items on hand.

11.3 STOCK CARDS

Under the perpetual inventory system, all movements of stock in and out of the business are recorded on stock cards. Because trading firms will carry a number of different lines of stock (different items, different colours, different sizes) the accounting system must include a separate stock card for each particular line of stock. (This could potentially mean a huge number of stock cards.)

A typical stock card looks like the one presented in Figure 11.3.

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Figure 11.3 ***Stock card***

Stock Item:	Black T-shirt, XL	**Location:**	Row 16, Bay C3
Stock Code:	BTBk306XL	**Supplier:**	Bonds

Date	Details	IN			OUT			BALANCE		
		Qty	Unit cost	Value	Qty	Unit cost	Value	Qty	Unit cost	Value

Top portion: Details of item

The top portion of the stock card shows non-financial details relating to the stock itself, including a description of the item (which in this case is a 'Black T-shirt: extra large'). Its code – BTBk306XL – is also identified for easy reference within the firm. The location can also be very important, particularly for stock stored in a large warehouse with many different storage bays. Lastly, the name of the supplier is identified to assist re-ordering.

Note: A firm that sells T-shirts would have a variety of T-shirts in different sizes and colours, so each different size and colour will need its own stock card. Therefore there will be a different stock card for each size of each colour.

Bottom portion: Transactions

The bottom portion of the stock card is used to record the actual transactions. It is divided into four main sections; date and details, IN, OUT and BALANCE.

Date and details

The first section is used to record standard information relating to the date and details of each stock transaction. In this case 'Details' refers to the source document that verifies each transaction.

IN, OUT and BALANCE columns

These columns record exactly what they state:

- IN column records all stock coming into the business. This will mainly be due to purchases, but could also be due to a stock gain (which is discussed later in this chapter).
- OUT column records all stock leaving the business. This could be through sales, drawings, a stock loss or perhaps advertising.
- BALANCE column shows the stock on hand available for sale (valued at cost price).

Note that whereas the journals and reports show transactions in dollar terms only, stock cards also show the quantity or number of items of stock and their unit cost – the cost price of each individual stock item. The value of each transaction is calculated by multiplying the quantity by the unit price.

Value = Quantity × Unit price

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REVIEW QUESTIONS 11.3

1 **Identify** four details that will be provided in the top portion of a stock card but not in the Stock figure reported in the Balance Sheet.
2 **Identify** two details that are provided when transactions are recorded in the stock card but are not provided in the journals or reports.
3 **State** how many stock cards a typical trading firm would require. (Beware: this is a trick question!)

11.4 RECORDING TRANSACTIONS IN STOCK CARDS

Where cost prices are constant

Purchases

Aug. 5 Purchased 15 Black XL T-shirts from Bonds @ $4.50 plus 45c GST each (Chq. 463)

A purchase means that stock is coming into the business, so this transaction must be recorded in the IN column as quantity 15 at a unit cost of $4.50, giving a total value for the purchase of $67.50 (15 x $4.50). The effect is to increase the number of items on hand in the BALANCE column to 25 T-shirts (10 on hand plus the 15 just purchased) at $4.50, for a value of $112.50.

Note that although the business pays $4.95 for each T-shirt, this is not the cost price of the stock; each T-shirt costs $4.50, but the supplier (Bonds) is collecting an extra 45c as GST. Only the cost price of $4.50 is recorded in the stock card, as the other 45c is not stock, but a reduction in the GST liability.

STUDY TIP

The cost price of stock does not include GST: no GST is ever recorded in the stock card.

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Sales

Aug.12 Cash sale of 8 Black XL T-shirts for $10 each plus $1 GST (Rec.32)

A sale means that stock is leaving or moving *out* of the business, so this transaction must be recorded in the OUT column. However, we have a dilemma regarding the unit price to be recorded: the price of the T-shirts is given on the source document (Rec. 32) as $10 plus $1 GST, but there are no $10 T-shirts listed in the stock card. How can this be?

Remember that the price on the receipt ($10 each plus $1 GST) will be the selling price, but the stock card is recorded at cost price ($4.50 each). The cost price of the stock is not revealed to the customer in order to protect the gross profit on the sale (you don't want the customers to know how much you are making on the sale!)

Therefore, this sale is recorded as 8 T-shirts at a unit cost of $4.50 (not $10), meaning that the value of the stock leaving the store is $36.00 (8 × $4.50). The effect is to decrease the number of items on hand in the BALANCE column to 17 T-shirts (25 on hand less the 8 just sold) at $4.50, with a total value of $76.50.

Figure 11.4 shows how this purchase and sale would be recorded in the stock card.

Figure 11.4 ***Recording transactions in the stock card***

Stock Item: Black T-shirt, XL **Location:** Row 16, Bay C3
Stock Code: BTBk306XL **Supplier:** Bonds

Date	Details	IN			OUT			BALANCE		
		Qty	Unit cost	Value	Qty	Unit cost	Value	Qty	Unit cost	Value
Aug. 1	Balance							10	4.50	45.00
5	Chq. 463	15	4.50	67.50				25	4.50	112.50
12	Rec. 32				8	4.50	36.00	17	4.50	76.50

The $36.00 recorded in the OUT column represents the outflow of stock that occurs when stock is sold: it is the Cost of Sales for that particular sale. By adding up all the figures in the OUT column that relate to sales, the business can determine its total Cost of Sales for that item for the period.

STUDY TIP

The only value ever recorded in a stock card is cost price.

Where cost prices are changing

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 may have different cost prices. These differing cost prices must be recorded in the stock cards.

Purchases

Aug.17 Purchased 12 T-shirts from Bonds for $5 each plus 50c GST (Chq.478)

As this is a purchase and will increase the stock on hand, this transaction must be recorded in the IN column as quantity 12, unit cost $5, value $60 (12 × $5). (Remember GST is not recorded in the stock card.) There are now 29 black XL T-shirts on hand, and the BALANCE column must reflect this, but we cannot simply aggregate the stock as 29 units, as not all were purchased at $4.50, and not all were purchased at $5. Which unit cost should be used for the balance? The answer is *both*. Even though the black XL

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T-shirts are identical in the eyes of the customers, because the cost prices of the stock batches differ – 17 were purchased for $4.50 each, while the 12 new black XL T-shirts were purchased for $5 each – they must be listed separately in the BALANCE column of the stock card.

Sales

Aug. 23 Sale of 20 T-shirts for $10 plus $1 GST each (Rec.65)

This sale means that stock is moving *out* of the business, so this transaction must be recorded in the OUT column, and once again the *cost price* must be used. However, the balance before this transaction is shown at two different cost prices – 17 units at $4.50 each, and 12 units at $5 each. Which stock has been sold?

Unless stock is marked or identified in some way, it is not possible to identify whether the customer has taken from the shop T-shirts worth $4.50 per unit or $5 per unit. For this reason we must assume that the stock that was purchased first will be sold first. This is known as the **First In, First Out (FIFO)** assumption. In the example provided, it means we will assume that the 17 T-shirts valued at $4.50 each will be sold first, with the remaining 3 T-shirts (to make up the 20 sold) assumed to be from the $5 batch.

First In, First Out (FIFO) the assumption that the stock that is purchased first will be sold first

Figure 11.5 shows how these transactions would be recorded in the stock card.

Figure 11.5 ***Recording transactions in the stock card: changing cost prices***

Stock Item: Black T-shirt, XL **Location:** Row 16, Bay C3
Stock Code: BTBk306XL **Supplier:** Bonds

Date	Details	IN			OUT			BALANCE		
		Qty	Unit cost	Value	Qty	Unit cost	Value	Qty	Unit cost	Value
Aug. 1	Balance							10	4.50	45.00
5	Chq. 463	15	4.50	67.50				25	4.50	112.50
12	Rec. 32				8	4.50	36.00	17	4.50	76.50
17	Chq. 478	12	5.00	60.00				17	4.50	76.50
								12	5.00	60.00
23	Rec. 65				17	4.50	76.50			
					3	5.00	15.00	9	5.00	45.00

STUDY TIP

Order does matter in a stock card. Always list the unit cost in the BALANCE column in the order in which the stock entered the business.

FIFO must be applied to all transactions recorded in the OUT column including sales, drawings, advertising and stock losses, but it is an assumption only; it may not match the actual flow of goods (i.e. customers may buy the T-shirts that were purchased more recently, rather than those which were first in). However, without actually marking stock, there is no way of knowing the actual cost price of the stock that has been sold, thus FIFO is not only an acceptable but necessary assumption.

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REVIEW 11.4

1 **State** the effect on the BALANCE of a transaction recorded in the:
- IN column
- OUT column.

2 **Explain** why the cost price is not shown on the source document that provides the evidence of a sale.

3 **Explain** how the stock card is used to determine the Cost of Sales for each transaction.

4 **Explain** the FIFO (First In, First Out) assumption as it applies to stock cards.

5 **Identify** four transactions to which the FIFO assumption must be applied.

11.5 THE PHYSICAL STOCKTAKE

Through the stock cards, the owner should have an up-to-date record of all movements of stock in and out of the business, and therefore an accurate figure for stock on hand. However, this assumes not only that all stock transactions have been recorded, but also that they have all been recorded accurately. Unfortunately this will not always be the case, so there is a need to verify the accuracy of the stock cards by conducting a stocktake. A **stocktake** involves a physical count of all the items of stock on hand, followed by the assignment of a cost price to these items. This stocktake figure can then be compared against the stock cards to verify their accuracy. The role of a stocktake is thus to verify the accuracy of the stock cards so that the stock figure reported in the Balance Sheet is *free from bias* (i.e. *Reliable*), and in the process, detect any stock loss or stock gain.

Stocktake
the process of counting every item of stock on hand to verify the accuracy of the stock cards and detect any stock loss or gain

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Stock loss

Stock loss
an expense that occurs when the stocktake shows less stock than is shown on the stock cards

A **stock loss** occurs when the physical stocktake reveals a quantity of stock less than the quantity indicated on the stock cards. This can occur because of:

- theft
- damage
- an over-supply to customers
- an under-supply by suppliers
- a recording error in the stock cards or during the stocktake.

EXAMPLE

Aug. 31 Stocktake revealed 7 black XL T-shirts on hand (Memo 15).
The stock card for black XL T-shirts showed a balance of 9 T-shirts.

The result of the stocktake will be recorded on a memo, an internal accounting document, and passed to the accounting department so that the records can be updated.

According to the stock card, there should be 9 black XL T-shirts on the shelves, but the physical stocktake reveals that there are only 7. Therefore, 2 T-shirts have been lost and the stock card needs to be updated to reflect the actual number of T-shirts on hand.

Figure 11.6 ***Recording a stock loss in the stock card***

Stock Item: Black T-shirt, XL **Location:** Row 16, Bay C3
Stock Code: BTBk306XL **Supplier:** Bonds

Date	Details	IN			OUT			BALANCE		
		Qty	Unit cost	Value	Qty	Unit cost	Value	Qty	Unit cost	Value
Aug. 23	Rec. 65				17	4.50	76.50			
					3	5.00	15.00	9	5.00	45.00
31	Memo 15				2	5.00	10.00	7	5.00	35.00

STUDY TIP

Just like a sale, a stock loss is recorded according to FIFO: the first stock in is assumed to be the first stock lost.

After recording the stock loss, the stock card will show the actual number of units on hand, and an accurate value of stock on hand can be reported in the Balance Sheet. Stock loss itself is classified as an expense because it is an outflow of an economic benefit in the form of a decrease in assets (stock) that results in a decrease in Owner's Equity.

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Figure 11.7 ***Stock loss: effect on the accounting equation***

	Increase/Decrease/No effect	Amount $
Assets	Decrease (Stock)	10
Liabilities		
Owner's Equity	Decrease (Stock loss expense decreases Profit)	10

STUDY TIP

Cost of sales and stock loss are both expenses that don't involve an outflow of cash, but rather an outflow of stock.

Stock gain

A **stock gain** occurs when the physical stocktake reveals a quantity of stock on hand *greater* than the number indicated in the stock card. This can occur because of:

- an under-supply to customers
- an over-supply by suppliers
- a recording error in the stock cards or during the stocktake.

Stock gain
a revenue that occurs when the stocktake shows more stock on hand than is shown in the stock card.

EXAMPLE

Sept. 30 Stocktake revealed stock on hand of 15 black XL T-shirts (Memo 24); the balance of the stock card showed 14 on hand.

In this case, the stocktake shows that the business has in stock 1 T-shirt more than the balance showed in the stock card, indicating a stock gain.

Figure 11.8 ***Recording a stock gain in the stock card***

Stock Item: Black T-shirt, XL **Location:** Row 16, Bay C3
Stock Code: BTBk306XL **Supplier:** Bonds

Date	Details	IN			OUT			BALANCE		
		Qty	Unit cost	Value	Qty	Unit cost	Value	Qty	Unit cost	Value
Sept. 28	Rec. 81				10	5.00	50.00			
					6	6.00	36.00	14	6.00	84.00
Sept. 30	Memo 24	1	6.00	6.00				15	6.00	90.00

A stock gain is classified as revenue because it is an inflow of economic benefit in the form of an increase in assets (stock) that results in an increase in Owner's Equity.

STUDY TIP

A stock gain should be recorded using the cost price of the most recent sale.

Figure 11.9 ***Stock gain: effect on the accounting equation***

	Increase/Decrease/No effect	Amount $
Assets	Increase (Stock)	6
Liabilities		
Owner's Equity	Increase (Stock gain revenue increases Profit)	6

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REVIEW QUESTIONS 11.5

1 Referring to one Qualitative Characteristic, **explain** the role of a physical stocktake.
2 **Define** the term 'stock loss'.
3 **State** four reasons for a stock loss.
4 **Explain** how a stock loss is classified in the Income Statement.
5 **Explain** the effect of a stock loss on the accounting equation.
6 **Define** the term 'stock gain'.
7 **State** two reasons for a stock gain.
8 **Explain** how a stock gain is classified in the Income Statement.
9 **Explain** the effect of a stock gain on the accounting equation.

11.6 BENEFITS OF THE PERPETUAL SYSTEM

As the backbone of the perpetual system, the benefits of stock cards are also the benefits of the perpetual system:

- *Assists in the re-ordering of stock.* The stock cards will show when the minimum stock levels have been reached so an order can be placed with the supplier.
- *Fast and slow moving lines of stock can be identified.* The owner can examine the stock cards to identify the items which are selling well and those that are not and adjust stock purchases accordingly.
- *Stock losses and gains can be detected* by comparing the balances of the stock cards against the physical stocktake.
- *Interim reports can be prepared without the need for physical stocktakes.* The level of stock on hand and the amount of Cost of Sales can be determined from the stock cards (although the level of stock loss or gain will not be known).

Stock cards and ICT

Stock cards can be maintained either manually or on a computerised basis, but in a store with hundreds of different stock items, manual recording would be very time consuming. However, the use of bar codes and an appropriate software program allows stock cards to be computerised. (Businesses that have a small range or specialised lines of stock might use a manual system, as the cost of a computer system and software might not be justifiable.)

This technology allows goods to be scanned as they move in and out of the business with the software automatically updating the stock records. At the end of the day, the owner/manager can print out a report that would show sales, stock levels, and other essential information that can be used to inform decisions. This could extend to warnings when stock levels are low, or even automatic reordering.

REVIEW QUESTIONS 11.6

1 **Explain** the benefits of the perpetual system of stock recording.
2 **Explain** how ICT can improve the use of the perpetual inventory system.

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WHERE HAVE WE BEEN?

- Trading businesses aim to generate profit by purchasing goods and then selling them at a higher price.
- Stock is the generic term applied to the goods held by a trading firm for the purposes of resale, and is not only the main source of revenue for a trading business, but also one its most significant assets.
- The perpetual inventory system involves the continuous recording of stock movements in stock cards.
- First In, First Out (FIFO) assumes that the first stock into the store is the first stock to leave.
- The role of a stocktake is to verify the accuracy of the stock cards and in the process, detect any stock loss or stock gain so that the stock figure reported in the Balance Sheet is free from bias (i.e. *Reliable*).
- Stock cards assist re-ordering, allow for the identification of fast and slow-moving lines, allow for the detection of a stock loss or gain, and allow interim reports to be prepared without conducting a physical stocktake.
- ICT can allow small businesses to use the perpetual inventory system to record stock movements.

EXERCISES

EXERCISE 11.1
IDENTIFYING STOCK

WB page 167

CRPS Accounting has provided the following list of its clients, and asked for some assistance in identifying the asset each business would report as stock.

Asset	Business
Bookcases	Hide Fashions
Computer	LX Construction Machinery
Leather jackets	Lekkis Motor Traders
Equipment	Timber Town Furniture
Vehicles	PC World

Required

a **Explain** why Lekkis Motor Traders would not classify the computer as stock.
b **Identify** which business would classify each asset as stock.

EXERCISE 11.2
STOCK TRANSACTIONS

WB page 168

For each of the following transactions, **state** the effect on each element of the accounting equation:

a Paid $100 plus $10 GST for the purchase of stock.
b Sold stock for $550 including $50 GST. (The stock had a cost price of $200.)
c Cash purchase of stock for $330 (inclusive of GST).
d Stock purchased for $400 was sold for $715 including $65 GST.

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EXERCISE 11.3
STOCK CARDS

WB page 169

Jackson Jewellers sells a variety of watches, including the Gismo 120, which it purchases from Ryan International. As at 30 September 2016, Jackson Jewellers had five Gismo 120 watches on hand valued at $210 each. The following are transactions relating to Gismo 120 watches that occurred during October 2016.

Oct.	1	Purchased 4 watches at $210 plus $21 GST each (Chq. 427)
	5	Cash sale of 3 watches for $390 plus $39 GST (Rec. 843)
	9	Cash sale of 1 watch for $429 including $39 GST (Rec. 844)
	13	Cash sale of 2 watches for $440 including $40 GST each (Rec. 846)
	18	Purchase of 10 watches for $210 plus $21 GST each (Chq. 430)
	20	Sold 5 watches for $440 inclusive of GST each (Rec. 847)
	26	Purchased 4 watches for $210 plus $21 GST each (Chq. 435)

Required

- **a** **Suggest** one reason why Chq. 432 does not appear in this list of transactions.
- **b** **Record** the transactions for October 2016 in the stock card for Gismo 120 watches.
- **c** **Explain** why the GST on purchases of stock is not recorded in the stock card.
- **d** **Explain** how the sale of stock creates an expense.

EXERCISE 11.4
STOCK CARDS AND FIFO

WB page 170

Len Sherbert owns and operates The Perfume Shop and has provided the following information relating to stock item 1112 Funk, which is purchased from Cologne Ltd.

April	1	Opening balance: 5 bottles valued at $60 each.
	3	Purchased 12 bottles at $60 plus $6 GST each (Chq. 880)
	8	Cash sale of 10 bottles at $220 including $20 GST each (Rec. 35)
	11	Purchased 15 bottles for $70 plus $7 GST each (Chq. 890)
	15	The owner took one bottle home for his wife (Memo 44)
	21	Sold 10 bottles at $200 plus $20 GST each (Rec. 36)
	25	Received delivery of 20 bottles, paying $88 including $8 GST per bottle (Chq. 894)
	30	Sold 15 bottles at $220 inclusive of GST each (Rec. 37)

Required

- **a** **Record** the transactions for April 2016 in the stock card for Funk perfume.
- **b** Referring to your answer to part 'a', **explain** the operation of the First In, First Out (FIFO) assumption.
- **c** **Calculate** the Cost of Sales for Funk perfume for April 2016.
- **d** **Calculate** the Gross Profit on Funk perfume for April 2016.

EXERCISE 11.5
STOCK LOSS AND GAIN

WB page 172

Chiltern Chainsaws sells timber cutting equipment, and after recording all transactions for August 2016, its stock cards showed 12 Brushcutter chainsaws on hand worth $400 each. A physical stocktake on 31 August 2016 showed 10 chainsaws on hand (Memo 13).

Required

- **a** Referring to one Qualitative Characteristic, **explain** the role of a physical stocktake.
- **b** **State** two reasons for the difference between the stock cards and the stocktake.
- **c** **Record** Memo 13 in the stock card for Brushcutter chainsaws.

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EXERCISE 11.6
STOCK LOSS AND GAIN

WB page 173

Maxwell's Hardware sells a number of different tools, including the Silver hammer. After recording all transactions for November 2016, the stock card showed 43 hammers on hand, but a physical stocktake on 30 November 2016 counted 47 (Memo 91). The hammers have a cost price of $15.

Required

- **a** **Explain** one reason for the difference between the stocktake and the balance shown on the stock card.
- **b** **Record** Memo 91 in the stock card for Silver hammers.
- **c** Apart from the detection of stock loss or gain, **state** one benefit of recording transactions in stock cards.

EXERCISE 11.7
STOCK CARDS, FIFO AND STOCKTAKE

WB page 174

Loud As sells stereos and other hi-fi equipment, and as at 1 December 2016 had five Rockweiler stereos on hand worth $1 000 each. The transactions for December were:

Dec	3	Sold 2 stereos for $2 000 plus $200 GST (Rec. L49)
	6	Purchased 6 stereos for $1 100 plus $110 GST each (Chq.123)
	14	2 stereos were sold to Blown nightclub for $2 200 including $200 GST each (Rec. L50)
	21	Bought 10 stereos from Rockweiler at a bargain price of $1 000 plus $100 GST each (Chq. 127)
	25	Sold 3 stereos to BJ HiFi for $ 2200 inclusive of GST each (Rec. L51)
	29	Owner took home a stereo to install at her house (Memo 44)
	31	A physical stocktake revealed 12 stereos on hand (Memo 45)

Required

- **a** **Record** the transactions for December 2016 in the stock card for Rockweiler stereos.
- **b** **Suggest** two reasons (apart from theft) for the difference between the stocktake and the balance shown in the stock card.
- **c** **State** the effect on each element of the accounting equation of the transaction on 31 December 2016.
- **d** **Explain** why stock loss is classified as an expense.

EXERCISE 11.8
STOCK CARDS AND CASH JOURNALS

WB page 176

Cuong's Electrical World buys and sells electrical products such as DVD players, VCRs, and TVs. The owner maintains individual stock cards for all stock and uses the FIFO method of recording. As at 1 June 2016 there were four Samsong DVD players (code no. 250) on hand at a cost price of $100 each. The following transactions took place during June 2016.

June	2	Purchased 10 DVD players for $110 plus $11 GST each (Chq. 1254)
	4	Paid $1 200 plus $120 GST for new shop fittings (Chq. 1255)
	7	Sold 6 DVD players for $297 (including $27 GST) each (Rec. 89)
	9	Paid wages $540 (Chq. 1256)
	12	Bought 5 DVD players at $120 plus $12 GST each (Chq. 1257)
	16	Owner contributed $1 000 cash (Rec. 90)
	18	Sold 6 DVD players for a total of $1 782 including $162 GST (Rec. 91)
	21	Paid wages $580 (Chq. 1258)
	25	Purchased 8 DVD players at $132 inclusive of GST each (Chq. 1259)
	29	Donated 5 DVD players to the local hospital (Memo 4)
	30	A physical stocktake showed 7 DVD players on hand (Memo 5)

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Required

- **a** **Record** the relevant transactions for June 2016 in the stock card for Samsong DVD players.
- **b** **Explain** one way in which stock cards can be used to improve the management of stock.
- **c** **Record** the relevant transactions for June 2016 in the cash journals of Cuong's Electrical World.
- **d** **State** the effect on each element of the accounting equation of the transaction on:
  - 2 June 2016
  - 7 June 2016
  - 30 June 2016.

EXERCISE 11.9
RECORDING FOR STOCK

WB page 178

Rob Giromondo owns and operates a business called Dinkum Furniture, which sells desks and other furniture. All desks are sold for $110 each, which includes $10 GST. On 1 September 2016 there were 15 desks on hand worth $50 each. The following transactions relating to desks occurred during September 2016.

Sept.	3	Sold 7 desks to Melbourne University (Rec. 56)
	10	Gave 2 desks to his daughter's school fete as prizes for the raffle (Document 3)
	16	Purchased 20 desks at $60 plus $6 GST each from Master Crafstmen (Chq. 320)
	23	Sales to Newtown High School of 18 desks (Rec. 57)
	30	A stocktake revealed there were 5 desks on hand (Memo 4)

Required

- **a** Referring to one Accounting Principle, **explain** why the desks are not recorded in the stock card at their selling price.
- **b** **State** the source document that would be used as evidence of the transaction on 10 September 2016.
- **c** **Record** the transactions for September 2016 in the stock card for desks.
- **d** **Explain** one way stock cards could be used to reduce stock loss.
- **e** **State** the effect (overstated/understated/no effect) on each element of the accounting equation if the transaction on 30 September 2016 was not recorded.
- **f** **Calculate** Cost of Sales for desks for September 2016.
- **g** **Calculate** Gross Profit on desks for September 2016.

EXERCISE 11.10
RECORDING FOR STOCK

WB page 180

Gia Lucchetti is the owner and manager of Lucchetti Paints, a business that sells paint and painting equipment. Stock is recorded using the perpetual system and stock cards are maintained according to First In, First Out (FIFO). Ceiling paint is sold for $77 per can including $7 GST. On 1 August 2016, the stock card for Ceiling paint showed:

		Qty	Unit cost	Value
Aug. 1	Balance	10	35	350
		8	40	320

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The following transactions occurred during August 2016:

Aug.	1	Sold 15 cans of paint (Rec. 231)
	3	Paid electricity bill $140 plus $14 GST (Chq. 184)
	5	Paid wages $780 (Chq. 185)
	8	Purchased 4 cans of paint for $44 inclusive of GST each (Chq. 186)
	9	Gia withdrew $400 cash for personal use (Chq. 187)
	12	Received a loan from JH Finance for $5 000 (Rec. 232)
	16	Paid $440 including $40 GST for advertising (Chq. 188)
	19	Gia took 2 cans of paint to use on her home renovations (Memo 20)
	22	Paid wages $620 (Chq. 189)
	25	Purchased 10 cans of paint at $45 plus $4.50 GST each (Chq. 190)
	28	Sold 6 cans of paint (Rec. 233)
	31	A physical stocktake revealed 6 cans of paint on hand (Memo 21)

Required

a **Record** the relevant transactions for August 2016 in the stock card for ceiling paint.

b **State** two benefits Gia derives by recording transactions in stock cards.

c **Record** the relevant transactions for August 2016 in the cash journals of Lucchetti Paints.

d Referring to one Accounting Principle, **explain** why the transaction on 19 August 2016 must be recorded in the stock card.

e **Explain** the effect on Owner's Equity as at 31 August 2016 if the transaction on 19 August 2016 had not been recorded.

f **Calculate** Gross Profit on ceiling paint for August 2016.

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Where are we headed?

After completing this chapter, you should be able to:

- **explain** the importance of Cost of Sales
- **calculate** Cost of Sales from the stock cards
- **distinguish** between Cost of Sales and Cost of Goods Sold
- **prepare** an Income Statement for a trading business
- **report** stock in the Balance Sheet
- **calculate** Stock Turnover (STO) and explain its significance
- **explain** strategies to improve stock management.

CHAPTER 12

REPORTING AND MANAGING STOCK

KEY TERMS

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

- Cost of Goods Sold
- Adjusted Gross Profit
- stock sheet
- Stock Turnover (STO).

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12.1 REPORTING FOR TRADING FIRMS

Essentially, the process of reporting for a trading business is the same as that applied to service businesses, with three general-purpose financial reports used to communicate financial information to the owner:

- *Statement of Receipts and Payments*: reports on cash received and paid and the change in the firm's Bank balance over the reporting period
- *Income Statement*: reports on revenue earned and expenses incurred over the reporting period
- *Balance Sheet*: reports on assets, liabilities and Owner's Equity at a particular point in time.

However, the reports of a trading firm must also report for *stock* in both the Income Statement and Balance Sheet, and we will explore this difference in this chapter.

12.2 COST OF SALES

Chapter 11 pointed out that when a sale is made it results in an outflow of stock, creating an expense called Cost of Sales: an outflow of economic benefits (the stock that has been sold) in the form of a decrease in assets (Stock), decreasing Owner's Equity. Therefore in order to determine the profit of a trading business, we must first have an accurate figure for Cost of Sales.

However, unlike wages, rent or advertising expenses, Cost of Sales does not involve a cash flow, and so is not recorded in the Cash Payments Journal. How then is the Cost of Sales expense determined? This is where the stock card comes into play. All sales of stock are recorded in the OUT section of the stock cards, so if we total the amounts relating to sales – as recorded in the value column of the OUT section – on all the stock cards, then we will be able to determine the Cost of Sales for the reporting period.

Cost of Sales is determined by adding together the value of each sale recorded in the OUT section of the stock cards.

EXAMPLE

Tyre City has provided the following stock card for Yukihimo P225/65R14 tyres for July 2016. All stock is sold at a 100% mark-up.

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Stock Item:	Yukihimo P225/65R14	**Location:**	Row 10, Bay D45
Stock Code:	Y132	**Suplier:**	Yukihimo

Date	Details	IN			OUT			BALANCE		
		Qty	Unit cost	Value	Qty	Unit cost	Value	Qty	Unit cost	Value
July 1	Balance							15	45	675
3	Memo 22				5	45	225	10	45	450
5	Chq. 267	15	45	675				25	45	1 125
12	Rec. 54				11	45	495	14	45	630
17	Chq. 283	18	5	90				14	45	630
								18	50	900
23	Rec. 72				14	45	630			
					6	50	300	12	50	600
31	Memo 25				2	50	100	10	50	500

The sales for the period are recorded in the OUT section, with the amount recorded in the value column representing the Cost of Sales for each transaction. Therefore, if we add together the amounts in the value column we should be able to determine the Cost of Sales for Yukihimo tyres for July 2016.

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However, before we make any calculations, we should examine the transactions in the OUT section a little more closely. A cash sale is verified by a receipt, but two of the transactions – on 3 July 2016 and 31 July 2016 – are referenced by a memo, indicating that they are not sales. The transaction on 3 July 2016 could be drawings of stock for personal use, or perhaps a donation as a form of advertising, while the transaction on 31 July 2016 is likely to be a stock loss. (We would need to look at the actual memo to find out for sure). These transactions are movements of stock out of the business, but they are clearly not sales, and so must not be included in the calculation of Cost of Sales. (The techniques for reporting these other non-sale stock transactions will be discussed later in this chapter.)

STUDY TIP

Cash sales can be identified in the stock card by a receipt.

The Cost of Sales for Yukihimo tyres for July 2016 would thus be calculated as:

July	12	Rec. 54		$495
	23	Rec. 72	(630 + 300)	$930
Cost of Sales for Yukihimo tyres for July 2016				$1 425

Total Cost of Sales

By adding together the amounts relating to sales in the OUT section of the stock card for Yukihimo tyres, we can determine their Cost of Sales. However, a tyre shop would have a large range of tyres and each type of tyre would have its own stock card. In order to calculate Cost of Sales for *all* stock, the process would need to be repeated for each and every stock card, with the total reported as Cost of Sales for the reporting period. The Cost of Sales for July 2016 would thus be calculated as:

Cost of Sales for Yukihimo tyres for July 2010	$1 425
Cost of Sales for Greatyear tyres for July 2010	1 200
Cost of Sales for Bridgerock tyres for July 2010	1 780
Cost of Sales for Michelton tyres for July 2010	940
Cost of Sales for July 2016	**$5 345**

This total – derived from all the stock cards – will be reported as an expense in the Income Statement for July 2016, as Cost of Sales $5 345.

REVIEW QUESTIONS 12.2

1 **Define** the term 'Cost of Sales'.
2 **Explain** how the stock cards can be used to determine Cost of Sales.
3 **State** three items that might be recorded in the OUT section of a stock card, but are not included in the calculation of Cost of Sales.

12.3 INCOME STATEMENT FOR TRADING FIRMS

Calculating profit for a service firm is relatively straightforward: expenses are deducted from revenues to determine the Net Profit or Loss. The process for a trading firm is very similar, but given the size and significance of Cost of Sales, this expense is identified separately in the Income Statement. In fact, the Income Statement will now show two separate figures for profit: Gross Profit and Net Profit.

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EXAMPLE

Tyre City has provided the following information relating to its trading activities for August 2016.

Cash Receipts Journal

Date	Details	Rec. No.	Bank	Sales	Sundries	GST
Aug. 2016	Loan – Bank of Guam				5 000	
	TOTALS		**55 820**	**46 200**	**5 000**	**4 620**

Cash Payments Journal

Date	Details	Chq. No.	Bank	Stock	Drawings	Wages	Sundries	GST
Aug.	Freight In						**1 200**	
2016	Advertising						**2 000**	
	Loan – Principal						**500**	
	Interest on Loan						**200**	
	Delivery to Customers						**1 400**	
	TOTALS		**48 560**	**30 000**	**5 000**	**4 800**	**5 300**	**3 460**

Additional information:

- The stock cards for August 2016 revealed the following:

  Cost of Sales $ 30 800
  Stock on hand 13 200

- A physical stocktake on 31 August 2016 showed $12 400 worth of stock on hand.

The Income Statement for Tyre City for August 2016 is shown in Figure 12.1.

Figure 12.1 ***Income Statement for a trading business***

TYRE CITY

Income Statement for August 2016

	$	$
Revenue		
Cash Sales		46 200
Less Cost of Goods Sold[1]		
Cost of Sales	30 800	
Freight In	1 200	32 000
Gross Profit[2]		**14 200**
Less Stock Loss		800
Adjusted Gross Profit[3]		**13 400**
Less Other Expenses		
Wages	4 800	
Advertising	2 000	
Interest on Loan	200	
Delivery to Customers	1 400	8 400
Net Profit[4]		**$5 000**

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This report is in many ways similar to the Income Statement for a service firm:

- the title is identical
- items such as GST received and loans are excluded from revenues
- items such as Drawings, GST paid, and loan repayments are excluded from expenses
- the final figure is Net Profit, calculated by deducting expenses from revenues.

However, the way certain revenues and expenses are presented is quite different.

1 Cost of Goods Sold

The most significant set of expenses for a trading business will be those directly related to stock, so these expenses are given special prominence in the Income Statement. The most important of these expenses will be Cost of Sales, but there may be other costs the business has incurred in order to get its stock *ready* for sale. These costs are reported under the heading **Cost of Goods Sold**, which will obviously include Cost of Sales, but also other expenses like freight/cartage/delivery inwards, import duties, custom duties, modifications, packaging, and other buying expenses.

Cost of Goods Sold
a heading used in the Income Statement for all costs incurred to bring stock into a location and condition ready for sale

These are all expenses directly related to stock, and more specifically, getting stock into the business – onto the shelf and ready for sale. Any cost after that point that is involved in *selling* the stock – like delivery *to customers* – is considered another expense (see below). Note that cash purchases of stock ($30 000) is not included, as it is not an expense: the purchase of stock does not involve an outflow of economic benefits because it does not decrease assets overall. A purchase of stock simply swaps one asset (Bank) for another (Stock).

2 Gross Profit

A trading business earns profit by buying goods at one price and selling them at another (higher) price, so the owner must be able to assess whether the selling price is high enough to cover the cost of the stock, all the firm's other expenses, and still provide for Net Profit. For this reason, the Income Statement for a trading firm shows whether the business has earned a *Gross Profit*, which is calculated as:

Gross Profit = Sales revenue *less* Cost of Goods Sold

3 Adjusted Gross Profit

Adjusted Gross Profit
Gross Profit less Stock loss (or plus stock gain).

The stock loss or gain is determined by comparing the stock card figures to the physical stocktake. A stock loss is then deducted from Gross Profit to determine **Adjusted Gross Profit**. (A stock gain would of course be added to Gross Profit.) Reporting the stock loss or gain separately allows the owner to identify problems with stock management so that corrective action can be taken.

STUDY TIP
Cost of Sales is an expense item; Cost of Goods Sold is an expense heading which includes Cost of Sales.

4 Net Profit

All costs incurred to get stock ready for sale are included as part of Cost of Goods Sold, leaving all the other costs that are required to keep the business operating (like wages, advertising, rent or interest) to be reported as other expenses. Note that delivery *to customers* is reported here rather than as part of Cost of Goods Sold, as it is incurred after the sale occurs. Net Profit is thus determined by deducting these other expenses from Adjusted Gross Profit.

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REVIEW QUESTIONS 12.3

1. **Define** the term Cost of Goods Sold.
2. **State** four expense items that may be reported as part of Cost of Goods Sold.
3. **Explain** why purchase of stock is not reported as an expense.
4. **Explain** why it is important to identify Gross Profit in the Income Statement of a trading business.
5. **Explain** how a stock loss or gain is determined.
6. **Explain** why stock loss and gain are reported separately in the Income Statement.
7. **State** the effect on Adjusted Gross Profit of a:
   - stock loss
   - stock gain.

12.4 BALANCE SHEET FOR A TRADING BUSINESS

In terms of the Balance Sheet, stock will be reported as a current asset: a resource controlled by the business from which future economic benefits are expected in the next 12 months.

However, *Relevance* dictates that there is no need to report the balance of each individual line of stock, as this information will not be useful for the types of decisions that are informed by the Balance Sheet. Instead, a single figure for stock will be reported, and this figure will be determined by using a **stock sheet**.

Stock sheet a listing of the quantity and value of each line of stock on hand

A stock sheet is simply a listing of all the stock lines, the number of units on hand, and the value of those units. Figure 12.2 shows the stock sheet for Tyre City as at 31 August 2016.

Figure 12.2 ***Stock sheet***

Item	Code	Qty	Value
Yukihimo tyres	Y132	12	$ 660
Greatyear tyres	G148	20	1 400
Bridgerock tyres	B166	10	500
Michelton tyres	M125	16	1 360
Stock on hand 31 August 2016			**$3 920**

This sheet would be based on the figures determined by the physical stocktake, with the stock cards adjusted (for any stock loss or gain) to match the figure shown on the stock sheet.

REVIEW QUESTIONS 12.4

1. **Explain** how stock is classified in the Balance Sheet.
2. Referring to one Qualitative Characteristic, **explain** why the Balance Sheet does not list the balance of every line of stock.
3. **Explain** the role of a stock sheet.

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12.5 STOCK TURNOVER (STO)

Stock Turnover (STO) an efficiency indicator which measures the average number of days it takes for a business to convert its stock into sales

The success of a trading firm rests on its ability to turn stock into sales. It is vitally important that a firm sells its stock quickly so that it has cash to meet its financial obligations in time, and so that it can purchase more stock to generate more sales. The speed at which individual lines of stock are sold can of course be determined by examining the stock cards, but if the owner wishes to make an overall assessment of the firm's stock management procedures, it may be useful to calculate **Stock Turnover (STO)**. This is an efficiency indicator that measures the average number of days taken to sell stock.

Figure 12.3 ***Stock Turnover formula***

$$\textbf{Stock Turnover (STO)} = \frac{\textbf{Average stock} \times \textbf{365}}{\textbf{Cost of Goods Sold}}$$

Average stock is used in an attempt to reflect the stock on hand carried *throughout* the period, whilst multiplying by 365 converts the turnover into days. Average stock is calculated as:

$$\textbf{Average stock} = \frac{\textbf{Stock at start + Stock at end}}{\textbf{2}}$$

Fast Stock Turnover – as measured by *low days* – means on average, stock is sold quickly. This will enhance the firm's ability to generate cash from the sale of stock, and assist its liquidity.

EXAMPLE

As at 1 January 2016, Stainless Cutlery had stock on hand worth $55 000. During 2016 its Cost of Sales was $300 000, and on 31 December 2016 stock on hand was $45 000.

The Stock Turnover of Stainless Cutlery for 2016 would be calculated as is shown in Figure 12.4.

Figure 12.4 ***Calculating Stock Turnover***

$$\textbf{STO} = \frac{50\,000 \times 365}{300\,000}$$

$$= \textbf{61 days *}$$

*Rounded to nearest day where:

$$\textbf{Average Stock} = \frac{55\,000 + 45\,000}{2}$$

$$= \textbf{\$50 000}$$

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This Stock Turnover indicates that on *average* it took Stainless Cutlery 61 days to sell its stock, or that it took 61 days to turn its stock into sales.

Assessing Stock Turnover

An acceptable rate of Stock Turnover depends largely on the nature of the stock. Stock which is relatively inexpensive or susceptible to spoilage (such as fresh produce) or technological obsolescence (such as mobile phones) should be turned over quickly, but other items may not sell for weeks.

Even considering these factors, there is no set level at which Stock Turnover is considered satisfactory. Rather, Stock Turnover should be measured against a benchmark such as:

- *Past figures for Stock Turnover* – established trends
- *Budgeted Stock Turnover* – predicted figures or targets that were hoped to be achieved.
- Stock Turnover of *similar businesses* or *industry averages*.

Managing Stock Turnover

If Stock Turnover is *too slow*, it could be improved by:

1. *Increasing the level of sales* to increase Cost of Sales and reduce the number of days taken to sell stock. This could be achieved by improving the stock mix, increasing marketing or advertising, or discounting slow lines of stock.
2. *Decreasing stock holdings* to reduce the amount of stock on hand. This could be done by purchasing less stock (but perhaps more frequently through just-in-time ordering) and discontinuing slow selling stock items.

It is, of course, possible that Stock Turnover could be *too fast*, meaning that 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. The owner must therefore strike a balance between ordering enough stock to meet demand, and not ordering so much that storage costs and stock losses (through theft and damage) increase.

REVIEW QUESTIONS 12.5

1. **State** two ways stock cards can be used to manage stock.
2. **State** what is measured by Stock Turnover (STO).
3. **Show** the formula to calculate Stock Turnover.
4. **Explain** why fast Stock Turnover is beneficial for liquidity.
5. **State** three benchmarks that could be used to assess Stock Turnover.
6. **State** two actions that could be implemented to improve Stock Turnover.

12.6 STOCK MANAGEMENT

As we noted in Chapter 11, effective stock management is essential to the survival of a trading business as stock is the firm's main source of revenue, and is likely to be one of its most significant assets.

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There are certain strategies a business owner can employ to ensure that the businesses stock is managed wisely to maximise the potential for sales, including:

Set minimum and maximum stock levels

A minimum stock level ensures that the business has enough stock on hand to meet customer demand. Insufficient stock on hand will mean a loss of sales, and therefore a loss of profit. In addition, setting a minimum stock level assists in reordering when stock levels are getting low. At the same time, a maximum level ensures that the business does not have too much of a particular item, which may lead to additional storage costs. An over-abundance of a particular line that may go out of fashion or become technologically obsolete also creates the risk that the business will be burdened with stock it cannot sell.

Rotate stock

Particularly for perishable items, older products must be stocked in front so that they are taken first. Otherwise, stock may remain unsold, resulting in spoilage and wastage. A similar approach could apply to older versions of electronic stock, or clothing, which could simply be moved to a different location in the store to encourage sales.

Ensure stock is up to date

Items affected by fashion or technology must be the most current version available. Older and out-of-date versions should be discounted for quick sale.

Maintain an appropriate stock mix

By examining the stock cards the owner will be able to identify those lines that are selling well and those that are not. The owner would be wise to expand those lines that are selling well and to discontinue those stock lines that are not.

Promote the sale of complementary goods

Complementary goods are 'add-on sales' that are generated to support the original item sold. For example, a business selling tents may also position sleeping bags, inflatable mattresses and gaslights nearby to encourage more sales.

Effective marketing

Strategies such as advertising and other promotions will hopefully lead to increased sales and faster Stock Turnover.

REVIEW QUESTIONS 12.6

Explain the strategies that could be employed to manage stock.

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WHERE HAVE WE BEEN?

- Cost of Sales is determined by adding together the value of each sale recorded in the OUT section of the stock cards.
- Reporting Gross Profit allows the owner to assess whether the selling price is high enough to cover the cost of the stock, all the firm's other expenses, and still provide for Net Profit.
- In the Balance Sheet, stock will be reported as a current asset: a resource controlled by the business from which future economic benefits are expected in the next 12 months.
- Stock Turnover is an efficiency indicator that measures the average number of days taken to sell stock.
- Stock management strategies include setting minimum and maximum stock levels, rotating stock, ensuring stock is up to date, maintaining an appropriate stock mix, promoting the sale of complementary goods and effective marketing.

EXERCISES

EXERCISE 12.1
CALCULATING COST OF SALES

WB page 183

Chris Chendo operates a music store called Sonics, and has provided the following stock card for Ibsen guitars for November 2016.

Stock Item: Ibsen Guitars **Location:** Bay 21
Stock Code: IB335 **Suplier:** Ibsen Music

Date	Details	IN			OUT			BALANCE		
		Qty	Unit cost	Value	Qty	Unit cost	Value	Qty	Unit cost	Value
Nov. 1	Balance							3	350	1 050
7	Rec. 15 – 16				2	350	700	1	350	350
11	Chq. 705	5	400	2 000				1	350	350
								5	400	2 000
15	Memo 12				1	350	350	5	400	2 000
22	Rec. 17 – 30				2	400	800	3	400	1 200
26	Chq. 713	6	420	2 520				3	400	1 200
								6	420	2 520
30	Memo 18				1	400	400	2	400	800
								6	420	2 520

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Required

a **Suggest** one possible reason for the transaction on 15 November 2016 (Memo 12).

b **State** one other type of transaction that will be recorded in the OUT column, but excluded from the calculation of Cost of Sales.

c **Calculate** Cost of Sales for Ibsen Guitars for November 2016.

d Referring to your answer to part 'c', **explain** why this is unlikely to be the figure reported as Cost of Sales in the Income Statement for Sonics for November 2016.

EXERCISE 12.2
CALCULATING COST OF SALES

WB page 184

Julie Hibbert is the owner of House of Tennis, and has provided the stock card for Majesty tennis racquets for July 2016.

Stock Item: Majesty tennis racquets **Location:** Shelf near counter
Stock Code: MT-122-C **Suplier:** Dilnot Tennis

Date	Details	IN			OUT			BALANCE		
		Qty	Unit cost	Value	Qty	Unit cost	Value	Qty	Unit cost	Value
July 1	Balance							4	45	180
6	Chq. 304	10	50	500				4	45	180
								10	50	500
12	?				4	45	180			
					2	50	100	8	50	400
19	Cqh. 317	12	50	600				20	50	1 000
23	Rec. 44				6	50	300	14	50	700
31	Memo 16				2	50	100	12	50	600

Additional information:

- All transactions are made on cash terms, and all sales are marked-up 100%.
- Memo 16 was the only memo issued during July 2016.

Required

a **State** the source document that would verify the transaction that occurred on 12 July 2016.

b **Describe** the transaction that occurred on 19 July 2016.

c **Explain** why the purchase of stock is not classified as an expense.

d **Calculate** Cost of Sales for Majesty tennis racquets for July 2016.

e **Explain** the effect of a stock gain on Cost of Sales.

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EXERCISE 12.3
INCOME STATEMENT

WB page 185

Gemima Finkelstein owns WhereIsIt Maps, and has provided the following information relating to the firm's trading activities for March 2016.

Cash Receipts Journal

Date	Details	Rec. No.	Bank	Sales	Sundries	GST
March	Capital Contribution				5 000	
	TOTALS		**30 300**	**23 000**	**5 000**	**2 300**

Cash Payments Journal

Date	Details	Chq. No.	Bank	Stock	Drawings	Wages	Sundries	GST
March	Buying Expenses						1 200	
	Advertising						1 000	
	GST Settlement						500	
	TOTALS		**25 820**	**17 000**	**1 500**	**2 700**	**2 700**	**1 920**

Additional information:

- Gemima's capital as at 1 March 2016 was $34 000.
- The stock cards for March 2016 showed Cost of Sales of $15 800, and stock on hand of $7 400.
- A physical stocktake on 31 March 2016 showed stock on hand of $7 100.

Required

* **a** **Prepare** an Income Statement for WhereIsIt Maps for March 2016.

b Referring to your answer to part 'a', **explain** your treatment of:
- GST Settlement
- Buying Expenses.

* **c** **Prepare** the owner's equity section of the Balance Sheet for WhereIsIt Maps as at 31 March 2016.

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EXERCISE 12.4
INCOME STATEMENT

WB page 187

Dion Virente is the owner of The Photography Place, and has provided the following information relating to the firm's trading activities for October 2016.

THE PHOTOGRAPHY PLACE

Statement of Receipts and Payments for October 2016

	$	$
Cash Receipts		
Cash Sales	35 000	
Loan – ANZ	2 000	
GST Received	3 500	40 500
Less Cash Payments		
Purchases of Stock	21 000	
Drawings	3 000	
Wages	4 800	
GST Paid	2 370	
Import Duties	500	
Interest on Loan	200	
Advertising	800	
Freight Out	1 400	34 070
Cash Surplus (Deficit)		**6 430**
Add Bank Balance at Start (1 October 2016)		**1 200**
Bank Balance at End (31 October 2016)		**$7 630**

Additional information:

- Dion's capital as at 1 October 2016 was $45 000.
- The stock cards for October 2016 showed Cost of Sales of $23 000 and Drawings of stock of $600.
- A physical stocktake on 31 October 2016 revealed a stock gain of $300.

Required

* **a** **Prepare** an Income Statement for The Photography Place for October 2016.

b Referring to your answer to part 'a', **explain** your treatment of:
- import duties
- freight out.

* **c** **Prepare** the owner's equity section of the Balance Sheet for The Photography Place as at 31 October 2016.

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EXERCISE 12.5
INCOME STATEMENT

W B page 188

John Darcy operates a small bookshop at Highworld Shopping Centre called Baxter's Books. Books are bought and sold on cash terms only. The journals of Baxter's Books for 2016 showed the following information.

Cash Receipts Journal

Date	Details	Rec. No	Bank	Sales	Sundries	GST
2016	Capital Contribution				6 000	
	TOTALS		**160 000**	**140 000**	**6 000**	**14 000**

Cash Payments Journal

Date	Details	Chq. No.	Bank	Stock	Drawings	Wages	Sundries	GST
2016	Freight In						11 000	
	Selling Expenses						5 800	
	Accounting Fees						3 200	
	TOTALS		**182 800**	**98 000**	**25 000**	**28 000**	**20 000**	**11 800**

Additional information:

- The stock cards for 2016 showed Cost of Sales of $96 000, Drawings of stock of $1 500, and Stock on hand as at 31 December 2016 of $20 000.
- A stocktake on 31 December 2016 revealed Stock on hand of $18 500 (Memo 63).
- Capital as at 1 January 2016 was $75 000.

Required

* a **Prepare** an Income Statement for Baxter's Books for 2016.
b **Explain** why the Income Statement for a trading firm shows Gross Profit.
* c **Prepare** the owner's equity section of the Balance Sheet for Baxter's Books as at 31 December 2016.
d **State** the effect on each element of the accounting equation of the adjustment for the physical stocktake.

EXERCISE 12.6
STOCK TURNOVER

W B page 190

As at 1 January 2016, Wally's Timber Yard held stock on hand worth $25 000. During 2016, the business generated sales of $180 000, incurring Cost of Sales of $91 250 in the process. As at 31 December 2016, Stock on hand had increased to $35 000. In 2015, Stock Turnover was 100 days.

Required

a **Calculate** the Stock Turnover of Wally's Timber Yard for 2016.
b Referring to your answer to part 'a', **explain** whether Wally should be satisfied with this Stock Turnover.
c **Explain** one effect on liquidity if Stock Turnover is too slow.
d **Explain** one strategy Wally could adopt to improve Stock Turnover without affecting Net Profit.

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EXERCISE 12.7
STOCK TURNOVER

page 191

Gia's Dancewear has provided the following information relating to the firm's activities for December 2016.

Sales revenue	26 000
Net Profit	2 000
Average Stock on hand	3 600
Cost of Sales	18 000
Average Total Assets	50 000

Stock Turnover: industry average 80 days

Required

a **Calculate** the Stock Turnover of Gia's Dancewear for December 2016.

b Referring to your answer to part 'a', **explain** whether Gia should be satisfied with this Stock Turnover.

c **Explain** one problem that may occur if Stock Turnover is too fast.

EXERCISE 12.8
REPORTING AND MANAGING STOCK

page 192

Benita Superior owns and manages a sporting goods store in Northcote called Superior Sports Store. Benita has provided the following information for 2016.

Assistant's wages	9 200
Cost of Sales	73 000
GST settlement	620
Rent	10 000
Stock on hand – 1 January 2016	12 500
Cartage inwards	2 300
GST received	10 500
Heating and power	1 200
Sales	105 000
Stock Turnover: industry average	35 days

Additional information:

- A physical stocktake on 31 December 2016 revealed $5 500 Stock on hand. The stock cards at the same date showed stock on hand worth $6 000.
- In 2015, Superior Sports had a Stock Turnover of 55 days.

Required

a **Calculate** cash purchases of stock for 2016.

b **Explain** why cash purchases of stock are not reported in the Income Statement.

* c **Prepare** an Income Statement for Superior Sports for 2016.

d **Explain** why the Income Statement for a trading firm shows both Gross Profit and Net Profit.

e **Calculate** Stock Turnover for Superior Sports for 2016.

f Referring to your answer to part 'e', **explain** whether Benita should be pleased with the Stock Turnover for 2016.

g **State** two possible reasons for the change in Stock Turnover from 2015 to 2016.

h **Explain** one advantage and one disadvantage of holding lower levels of stock.

i **Explain** two principles of stock management that Benita should employ.

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EXERCISE 12.9
REPORTING AND MANAGING STOCK

page 195

Mario Belleto is the owner/operator of Antique Arts, an art dealership in Moonee Ponds. Stock is recorded using the perpetual system, and valued using First In, First Out. Mario has provided the following information for the year ended 30 June 2016.

Sales	47 500
Cost of Sales	19 000
Stock on hand – 1 July 2015	7 400
Stock on hand – 30 June 2016	7 800

Mario used to own a fruit shop, which consistently generated a Stock Turnover of 6.2 days, and he has been quite disappointed with the Stock Turnover of Antique Arts which was 165 days for the year ended 30 June 2015.

Required

- **a** **Calculate** the Stock Turnover for Antique Arts for the year ended 30 June 2016.
- **b** Referring to your answer to part 'a', **state** two reasons why Mario should not be disappointed with the Stock Turnover for the year ended 30 June 2016.
- **c** **Calculate** the percentage mark-up Mario has applied to his stock.
- **d** **Explain** how decreasing the percentage mark-up may affect:
  - Stock Turnover
  - Gross Profit.

Mario has provided the following information for August 2016.

Stock on hand – 1 August 2016	7 800
Sales	37 000
Capital – 1 August 2016	18 700
Cartage out	1 400
Drawings	2 000
Cash at bank	3 000
Cash purchases of stock	18 600
Wages	3 300
Packaging expenses	1 900
Advertising	650

Additional information:

- At the start of August, Mario introduced a new packaging system for small antiques; after stock is sold, it is sealed in bubble wrap before it is delivered to the customer.
- Drawings consisted of $1 600 cash, and an antique lamp worth $400.
- On 31 August 2016, a physical stocktake revealed $6 500 stock on hand while the stock cards showed Stock on hand as $6 100.

Required

- **e** **Calculate** Cost of Sales for August 2016.
- * **f** **Prepare** an Income Statement for Antique Arts for August 2016.
- **g** **Prepare** the owner's equity section of the Balance Sheet for Antique Arts as at 31 August 2016.
- * **h** **Explain** the effect on owner's equity as at 31 August 2016 if Mario had failed to record the withdrawal of the lamp.
- **i** **Explain** one stock management principle (other than establishing minimum and maximum stock levels) that Mario should implement.

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Where are we headed?

After completing this chapter, you should be able to:

- **distinguish** between cash and credit transactions
- **identify** a credit transaction from an invoice
- **distinguish** between a credit purchase and a credit sale
- **explain** the role of the Purchases Journal and Sales Journal and the benefits they bring to the accounting process
- **identify** and record credit purchases of stock (with GST) in the Purchases Journal, stock cards and Creditors records
- **prepare** a Creditors schedule
- **identify** and record credit sales of stock (with GST) in the Sales Journal, stock cards and Debtors records
- **prepare** a Debtors schedule
- **explain** the benefits of using subsidiary records for debtors and creditors.

CHAPTER 13

CREDIT TRANSACTIONS

KEY TERMS

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

- credit transaction
- invoice
- sales invoice
- purchase invoice
- debtor
- creditor
- credit purchase
- Purchases Journal
- Creditors record
- Creditors schedule
- credit sale
- Sales Journal
- Debtors record
- Debtors schedule
- Statement of Account.

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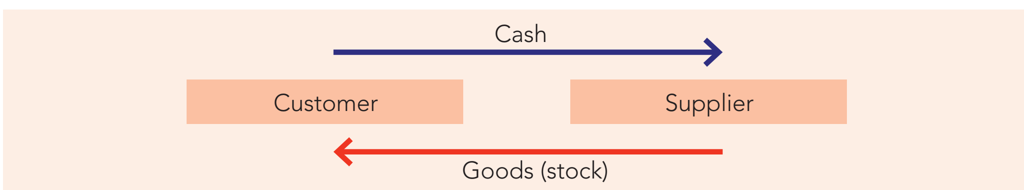
13.1 CREDIT TRANSACTIONS

As was noted at the very start of this text, a transaction is simply an exchange of goods, services or some other asset. For instance, a sale or purchase of stock will involve the provision of stock by the supplier, in return for cash from the customer. This 'exchange' is represented in Figure 13.1.

Figure 13.1 ***Sale or purchase of stock***



Credit transaction
when goods are exchanged but the cash relating to the stock is not exchanged until some later date, meaning the customer owes a debt to the seller

So far we have dealt only with cash transactions, which means that the goods and cash are exchanged at *the same time*. However, many small businesses will also conduct some of their trading activities using **credit transactions**, which effectively separates a sale or purchase into *two transactions*: the exchange of goods occurs first, with the exchange of cash only occurring at a later date.

EXAMPLE

> On 3 April 2016, Uptown Ceramics purchased 4 vases on credit from A. Potter for $550 (including $50 GST).

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Had this been a cash transaction, both the vases and the cash would have been exchanged on 3 April 2016. However, because it is a credit transaction, only the vases would be exchanged on 3 April: the cash related to the transaction would be exchanged at some later date. This means that on 3 April 2016, Uptown Ceramics still owes $550 to A. Potter.

Note: When we speak of 'credit transactions' we are not referring to sales made to customers who pay with their credit card (even cards that are priceless, or accepted everywhere). Transactions such as these are treated as a 'cash equivalent' (as are cheques), because the customer does not owe the seller anything. (The credit relationship in this case is between the customer and the credit card provider.)

Source documents for credit transactions

As has been noted previously, source documents are vital in ensuring the *Reliability* of accounting reports; by verifying each transaction, source documents ensure that the reports are free from bias. Whereas cash transactions are verified by a cash receipt or cheque butt (for receipts and payments respectively), credit transactions are verified by an **invoice** such as the one shown in Figure 13.2.

Invoice
a source document that verifies the details of a credit transaction

Figure 13.2 ***Invoice***

35 Rosella St
Frankston, VIC 3199

A. Potter Studios
ABN: 90 876 444 361

TAX INVOICE

Date: 3/4/2016
Invoice: 29
Original Terms: 2/7, n/30

Sold to: Uptown Ceramics
12 South Gate Way
Lagwarrin, Victoria, 3190
ABN: 33 020 871 455

Item	Qty	Unit Cost $	$
Egyptian Vase	25	20	500
GST (10%)			50
		$	550

The invoice will be issued by the seller/supplier (who is named at the top of the invoice), and delivered with the goods.

This invoice verifies that on 3 April 2016, A. Potter sold stock to Uptown Ceramics. As a source document and tax invoice, it identifies:

- the name of the supplier (A. Potter Studios)
- the name of the customer (Uptown Ceramics)
- the terms of the sale/purchase (2/7, n/30)
- the type, number and value of stock items that have been supplied (25 Egyptian vases worth $20 each, for a total of $500)
- the GST on the sale ($50 i.e. 10% of the price)
- the total amount owing to the seller (**$550**)

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Terms

By definition, a credit transaction means that the customer will not pay the cash on the day the sale is made. It is therefore important that the invoice given to the customer with the goods specifies exactly when payment must be made, and this is specified in the credit terms. In this example, the notation '2/7, n/30' means that if the amount owing is paid in 7 days, a 2% discount will be given, but the net amount must be paid in 30 days.

Credit sale or credit purchase?

Given that an invoice will provide evidence of both a credit purchase and a credit sale, how are the two to be distinguished? The answer depends on which entity for whom we are accounting. The name of the seller is always identified at the top of the invoice, and the name of the customer is identified in the middle (as 'Sold to' or 'Charged to'). Therefore, if the business for which we are accounting ('our business') is named at the top of the invoice, the document is a **sales invoice**, and the transaction is a credit sale. If, however, our business is named in the middle of the invoice, the document is a **purchase invoice** and the transaction is a credit purchase.

Sales invoice
a source document that verifies a credit sale of stock

Purchase invoice
a source document that verifies a credit purchase of stock or other items

The invoice in Figure 13.2 would be treated as a credit sale in the records of A. Potter Studios, as it is named at the top of the invoice as the seller. In the records of Uptown Ceramics; however, it would be treated as a credit purchase, as Uptown Ceramics is named in the middle as the purchaser.

Debtors

A credit sale will mean that some customers will owe the business for the stock that has been sold to them, and these customers are known as **debtors**. Debtors are reported as a current asset, because the amounts they owe (to 'us') represent an economic resource controlled by the business (the business has a legal claim to the debt), which will provide a future economic benefit (when the cash is received) in the next 12 months. (Most firms would expect to receive the cash well within a year: the credit terms in Figure 13.2 were only 30 days!)

Debtor
a customer who owes a debt to the business for goods or services sold to them on credit

Creditors

Conversely, a credit purchase will mean that the business will owe some suppliers for the stock it has purchased from them, and these suppliers are known as **creditors**. Because we have a present obligation to make an economic sacrifice to these creditors (by paying them the amount owing) sometime in the next 12 months, creditors are reported as a current liability.

Creditor
a supplier who is owed a debt by the business for goods or services purchased from them on credit

GST on credit transactions

When stock is sold or purchased for cash, the customer must pay not only for the stock, but also the GST (10% of the supplier's price). The supplier collects this GST on behalf of the ATO, and at some stage in the future must forward it to the ATO.

When stock is sold or purchased on credit, the same principle applies, with the only difference being that cash is not exchanged on the same day as the stock. The customer must still pay GST on the purchase, but because the transaction is on credit, the customer will owe the GST to the supplier. This means the customer will owe to the supplier an amount for the stock, plus the GST amount. In our example above, Uptown Ceramics will owe A. Potter Studios **$550**: $500 for the vases that have been purchased, and $50 GST.

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REVIEW QUESTIONS 13.1

1 **Distinguish** between a cash transaction and a credit transaction.
2 Referring to one Qualitative Characteristic, **explain** the importance of source documents in the accounting process.
3 **Explain** why credit terms should be noted on an invoice.
4 **Explain** how a business can distinguish between a sales invoice and a purchase invoice.
5 **Define** the following terms:
   - debtor
   - creditor.
6 **Explain** how debtors and creditors are reported in the Balance Sheet.
7 **Explain** how the GST affects the amount owed to a creditor for the purchase of stock on credit.

13.2 RECORDING CREDIT PURCHASES

In literal terms, a **credit purchase** occurs when a business buys stock or other assets from a supplier but is not required to pay until a later date. Although a trading firm could purchase any type of asset on credit, the term 'purchases' on its own usually relates to the purchase *of stock*. Therefore, we will use the term 'credit purchases' to refer to purchases *of stock* that need not be paid until a later date.

Credit purchase
a transaction that involves the acquisition of stock (or other goods) from a supplier who does not require payment until a later date

Every credit purchase should be verified by a purchase invoice. However, a collection of invoices does not represent usable accounting information – the data must be sorted, classified and summarised in some way before it can be used to assist decision-making. Chapter 6 introduced the use of the Cash Receipts Journal and Cash Payments Journal to summarise cash transactions, and a similar approach can be applied here by using a **Purchases Journal** to summarise all purchases of stock on credit during a particular reporting period.

Purchases Journal
an accounting record which summarises all transactions involving the purchase of stock on credit

Figure 13.3 shows the Purchases Journal for Uptown Ceramics for April 2016.

Figure 13.3 ***Purchases Journal***

Date[1]	Creditor[2]	Inv. Number[3]	Stock[4]	GST[5]	Total Creditors[6]
Apr. 3	A. Potter Studios	29	500	50	550
8	Pots 'n' Pitchers	X401	390	39	429
15	A. Potter Studios	35	600	60	660
20	Stoneware House	AV12	350	35	385
23	Pots 'n' Pitchers	X432	420	42	462
29	A. Potter Studios	39	300	30	330
	TOTALS	**$**	**2 560**	**256**	**2 816**

Notes for recording in the Purchases Journal:

1 Date

Transactions are recorded in the journal on the date they occur. (This date will be very important for the individual Creditors records, which will be discussed later.)

2 Creditor

The journal must show the name of each individual creditor. (A separate record will be maintained elsewhere for each individual creditor).

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3 Invoice number

In order to ensure *Reliability*, the source document – which for this journal is a purchase invoice – must be recorded. If ever a query arises as to the details of the transaction, it can be traced easily back to the source document for clarification and verification.

The purchase invoices listed in the Purchases Journal won't run in order, because they are issued not by Uptown Ceramics, but by their suppliers such as A. Potter Studios, Pots 'n' Pitchers and Stoneware House. Between purchases by Uptown Ceramics, these suppliers will issue invoices to all of their other customers.

4 Stock

This is the value of the stock that has been purchased (its cost price), excluding GST, which will be recorded in the stock card.

STUDY TIP

The amount of the GST on each purchase will always be identified, either as 'plus GST', or 'including GST'.

5 GST

This is the GST incurred on credit purchases, calculated as 10% of the price of the purchase (as recorded in the stock column).

6 Total creditors

This is the total amount owed to creditors, calculated by adding together the value of the stock purchased, and the GST. That is, we owe the creditor for the stock, which has been purchased and the GST incurred.

By recording all the credit purchases in a Purchases Journal, we have a summary of how much stock has been purchased on credit during the reporting period. In this case, Uptown Ceramics has purchased $2 560 worth of stock during April 2016. As a result, it has incurred GST of $256, meaning that the amount it owes to its creditors has increased by a total of **$2 816.**

GST on credit purchases

Although the GST incurred on credit purchases will increase the debt owed to the creditor, it will not affect the valuation of stock, because it is in fact a reduction in the GST liability to the ATO. Just as the *GST paid to suppliers* (discussed in Chapter 6) will be forwarded to the ATO by the supplier, so too will the *GST incurred on credit purchases*. As a result, any GST the business pays or incurs on its own purchases can be deducted from its GST liability. Therefore, stock is valued at the supplier's price, and the GST incurred on credit purchases reduces the GST payable.

Effect on the accounting equation

The overall effect of total credit purchases on the accounting equation of Uptown Ceramics for April 2016 would be:

	Increase/Decrease/No effect	Amount $
Assets	**Increase** (Stock)	2 560
Liabilities	**Increase** (increase **Creditors $2 816**, decrease GST $256)	2 560
Owner's Equity	**No effect**	

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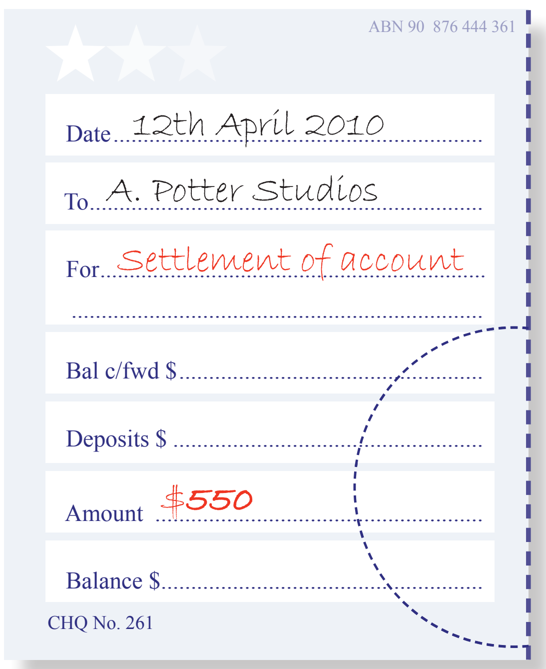
REVIEW QUESTIONS 13.2

1 **Explain** the role of the Purchases Journal.
2 **State** which type of source document is used to verify all transactions recorded in the Purchases Journal.
3 **Explain** the effect of 'GST incurred on credit purchases' on the valuation of stock.
4 Referring to the Purchases Journal, **state** one reason why the amount recorded in the Total Creditors column is greater than the value of stock purchased.
5 **Explain** the effect of 'GST incurred on credit purchases' on GST payable.
6 **State** the effect of a credit purchase of stock on each element of the accounting equation.

13.3 PAYMENTS TO CREDITORS

Credit purchases are recorded in the Purchases Journal on the day the stock is purchased, but like all cash payments, the other half of the transaction – when the cash is paid to the creditor – is verified by a cheque butt and recorded in the Cash Payments Journal. Figure 13.4 shows the cheque butt to provide evidence of a payment to a creditor.

Figure 13.4 ***Payment to a creditor: cheque butt***



ABN 90 876 444 361

Date 12th April 2010

To A. Potter Studios

For Settlement of account

Bal c/fwd $

Deposits $

Amount $550

Balance $

CHQ No. 261

On a cheque butt, settlement of account indicates that the cash has been paid to a creditor (A. Potter Studios) to settle the amount outstanding.

Note that there is **no** GST on a payment to a creditor, because the GST is recognised and reported only at the time the *purchase* is made.

This would be recorded in the Cash Payments Journal as is shown in Figure 13.5.

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Figure 13.5 ***Payment to a creditor: Cash Payments Journal***

Cash Payments Journal

Date	Details	Ch. No.	Bank	Creditors	Drawings	Wages	Sundries	GST
April 2	Stoneware House	258	**220**	220				
6	Wages	259	**750**			750		
7	Drawings	260	**600**		600			
12	A. Potter Studios	261	**550**	550				
15	Electricity	262	**275**				250	25
16	Pots 'n' Pitchers	263	**200**	200				
20	Wages	264	**750**			750		
21	Drawings	265	**600**		600			
23	A. Potter Studios	266	**660**	660				
28	Rent	267	**1 320**				1 200	120
	TOTALS		**5 925**	**1 630**	**1 200**	**1 500**	**1 450**	**145**

Payments to creditors will be frequent, and so recorded in their own classification column just like (in this example) Drawings, Wages, and GST. Total cash paid to creditors by Uptown Ceramics in April 2016 is thus $1 630.

Effect on the accounting equation

The overall effect of payments to creditors on the accounting equation of Uptown Ceramics for April 2016 would be:

	Increase/Decrease/No effect	Amount $
Assets	**Decrease** (Bank)	1 630
Liabilities	**Decrease** (Creditors)	1 630
Owner's Equity	**No effect**	

Calculating Creditors balance

With total credit purchases recorded in the Purchases Journal, and total payments to creditors recorded in the Cash Payments Journal, we can calculate the total balance owed to creditors at the end of the reporting period. Assuming Uptown Ceramics owed $320 to its creditors as at 1 April 2016, its creditors balance as at 30 April 2016 would be calculated using the formula shown in Figure 13.6.

Figure 13.6 ***Creditors formula***

Creditors balance at start	320	From the *previous* Balance Sheet
+ Credit purchases incl. GST	2 816	From the Purchases Journal
	3 136	
– Payments to creditors	1 630	From the Cash Payments Journal
Creditors balance at end	$1 506	Goes into the *next* Balance Sheet as a Current liability

This new balance of the total owed to creditors ($1 506) can now be reported as a Current liability in the Balance Sheet for Uptown Ceramics as at 30 April 2016.

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REVIEW QUESTIONS 13.3

1. **State** the source document used to verify cash paid to a creditor.
2. **Explain** why there is no GST to account for when cash is paid to a creditor.
3. **State** one reason why 'payments to creditors' are recorded in their own classification column in the Cash Payments Journal.
4. **State** the effect of a payment to a creditor on each element of the accounting equation.
5. **Show** the formula to calculate the balance of creditors at the end of the reporting period, identifying the sources of the information it uses.

13.4 CREDIT PURCHASES AND SUBSIDIARY RECORDS

The Purchases Journal is essential in the preparation of the accounting reports because it summarises total credit purchases for a reporting period. However, this type of summarised information will be less useful in the micro-management of stock and creditors. Detailed information relating to both stock and creditors is required to assist decision-making at a more detailed level.

The stock card

In Chapter 11 we studied stock management by recording all movements of stock in and out of the business in stock cards, and as with all transactions affecting stock; a credit purchase must be recorded in the stock card of the appropriate stock item.

The transaction detailed in Figure 13.2, a credit purchase of 25 vases for $20 plus $2 GST each (Invoice 29), would be recorded in the stock card as shown in Figure 13.7.

Figure 13.7 ***Credit purchase in the stock card***

Stock Item: Egyptian vases **Location:** Shelf 24
Stock Code: EV **Suplier:** A. Potter Studios

Date	Details	IN			OUT			BALANCE		
		Qty	Unit cost	Value	Qty	Unit cost	Value	Qty	Unit cost	Value
April. 1	Balance							10	18	180
3	Inv. 29	25	20	500				10	18	180
								25	20	500

As the stock enters the business, it is recorded in the IN column of the stock card, thereby increasing the quantity of stock on hand. Note that it is only the cost price of the stock ($20 per vase) that is recorded in the stock card – the GST component of $2 is excluded.

When recorded in the stock card, a credit purchase is almost indistinguishable from a cash purchase: both are recorded in the IN column, and increase the BALANCE. The only difference is in the DETAILS column, where a credit purchase is verified by an invoice (in this case Inv. 29), whereas a cash purchase would be verified by a cheque butt.

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Creditors records

Creditors record
a subsidiary accounting record which records each individual transaction with each individual creditor, and shows the balance owing to that creditor at any point in time

You will have no doubt considered the fact that although we have recorded the total purchased from creditors, there is at present no record of the transactions with individual creditors. This will be provided by maintaining a set of subsidiary records called **Creditors records**. A separate Creditors record will be maintained for each individual creditor, showing each individual transaction affecting that creditor's balance. Figure 13.8 shows the Creditors records for Uptown Ceramics, after all credit purchases and payments to creditors for April 2016 have been recorded.

Figure 13.8 *Creditors records*

CREDITOR – A. POTTER STUDIOS

Date	Details	Source document	Payments	Purchases	Balance
April 3	Stock/GST	Inv. 29		550	550
12	Payment	Chq. 261	550		–
15	Stock/GST	Inv. 35		660	660
23	Payment	Chq. 266	660		–
29	Stock/GST	Inv. 39		330	330

CREDITOR – POTS 'N' PITCHERS

Date	Details	Source document	Payments	Purchases	Balance
April 1	Balance				100
8	Stock/GST	Inv. X401		429	529
16	Payment	Chq. 263	200		329
23	Stock/GST	Inv. X432		462	791

CREDITOR – STONEWARE HOUSE

Date	Details	Source document	Payments	Purchases	Balance
April 1	Balance				220
2	Payment	Chq. 258	220		–
20	Stock/GST	Inv. AV12		385	385

Each Creditors record has the standard columns for Date, Details and Source document, with additional columns to record Payments and Purchases. Like a stock card, the Creditors record also has a running balance, which is adjusted after every transaction is recorded. Credit purchases (as recorded in the Purchases Journal) *increase* the balance owing – this amount includes the GST incurred on the purchase, as is reflected in the notation Stock/GST in the Details. Payments to creditors (from the cash payments journal) *decrease* that balance.

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The Creditors Schedule

In order to check that the same information has been recorded (albeit in a different form) in the journals and Creditors records, a **Creditors schedule** (or Creditors Reconciliation) is prepared by listing the name and balance of each individual Creditor's record. This occurs at the end of the reporting period, before the Balance Sheet is prepared. Figure 13.9 shows the Creditors schedule for Uptown Ceramics as at 30 April 2016.

Creditors schedule
a listing of the name and balance of each creditor's record

Figure 13.9 *Creditors schedule*

UPTOWN CERAMICS

Creditors schedule as at 30 April 2016

Creditor	Balance $
A. Potter Studios	330
Pots 'n' Pitchers	791
Stoneware House	385
Balance as per Creditors formula	**$1 506**

The total of the Creditors schedule is calculated by adding together the balances of the individual creditor's records. If the transactions have been recorded correctly, this total (**$1 506**) should match the figure calculated using the Creditors formula. (Thankfully, it does – cynics can check Figure 13.6!)

Remember that applying *Relevance* means that only the *total* Creditors balance of **$1 506** will be reported in the Balance Sheet, as the balances of each individual creditor are not useful for the decision-making that it assists. The individual details are available to assist the owner in managing creditors, but are not necessary in a general-purpose report like the Balance Sheet.

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REVIEW QUESTIONS 13.4

1. **Explain** the effect of recording a credit purchase in a stock card.
2. Referring to the stock card, **state** one way of distinguishing between a cash purchase and a credit purchase.
3. **Explain** the role of a Creditors record.
4. **Explain** the role of a Creditors schedule.

13.5 RECORDING CREDIT SALES

Credit sale
a transaction that involves the provision of goods to a customer who is not required to pay until a later date

One of the great benefits of selling stock on credit terms is that it may actually generate more revenue, and thus profit, than would be possible through cash sales alone. As with a cash sale, a **credit sale** increases revenue because it creates an inflow of future economic benefits, in the form of 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 (so Bank increases), whereas for a credit sale, the asset that increases is Debtors.

EXAMPLE

On 6 April 2016, Uptown Ceramics sold 16 Egyptian vases to Stellar Gallery for $1 120 (plus $112 GST): Inv. 91.

The Sales invoice for this credit sale is shown in Figure 13.10.

Figure 13.10 ***Sales invoice***

Uptown Ceramics
12 South Gate Way,
Langwarrin,Victoria, 3910

ABN: 33 020 871 455

TAX INVOICE

Customer:	Stellar Gallery, Richmond Victoria 3123 ABN: 60 404 987 332	6 April 2016 Invoice 91 Terms: 5/7, n/30

Item	Qty	Unit price	Total
Egyptian Vases	16	70	1 120
GST (10%)			112
		Total	$ 1 232

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The GST is recognised and reported at the time of the sale, so the sales invoice must show all the information necessary for it to be classified as a tax invoice, including the selling price of the stock, the amount of the GST, and the total invoice price. Note that the invoice does *not* show the cost price of the sale, because we don't want to show our customers the size of our mark-up. (They may be less willing to pay what we are asking if they know how much profit we are making!) As with cash sales, the cost price of the stock would be determined in the stock cards.

Recording all credit sales in a **sales journal** allows us to classify and summarise the transactions, so that total credit sales can be reported with ease in the Income Statement. Figure 13.11 shows the Sales Journal for Uptown Ceramics for April 2016.

Sales Journal
an accounting record that summarises all transactions involving the sale of stock on credit during a reporting period

Figure 13.11 ***Sales Journal***

Date[1]	Debtor[2]	Invoice number[3]	Sales[4]	GST[5]	Total Debtors[6]
April 6	Stellar Gallery	91	1 120	112	**1 232**
9	Home Junction	92	900	90	**990**
16	A. Minty	93	660	66	**726**
20	Decorators' World	94	750	75	**825**
23	Stellar Gallery	95	430	43	**473**
	TOTALS	**$**	**3 860**	**386**	**4 246**

Notes for recording in the Sales Journal

1 Date

As with the Purchases Journal, transactions are recorded in the Sales Journal on the date they occur, as this is the date on which they will be recorded in the Debtors records.

2 Debtor

Whereas credit purchases will increase creditors, credit sales will increase debtors, so the Sales Journal must show the name of each individual debtor (the individual transactions will be recorded in the Debtors records).

3 Invoice number

Although the invoices will not run in sequence in the Purchases Journal, they will in the Sales Journal because they are all issued by the business keeping the journal.

4 Sales

This is the sales revenue earned from the sale, recorded at its selling price, excluding any GST.

5 GST

This is the GST charged on credit sales, calculated as 10% of the price of the sale (as recorded in the Sales column). The GST charged does not affect sales earned, but it does increase the debt owed by each debtor, and increases the GST payable to the ATO by the seller (see over page).

6 Total Debtors

This is the total amount owed by debtors for each sale, calculated by adding together the selling price of the stock sold, and the GST charged. That is, each debtor owes us for the stock sold, and the GST.

STUDY TIP

The amount of the GST on each sale will always be identified, either as 'plus GST', or 'including GST'.

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By recording all the credit sales in a Sales Journal, we have a summary of how much sales revenue has been earned from credit sales during the reporting period. In this case, Uptown Ceramics has earned $3 860 worth of sales during April 2016. In the process it has charged its debtors GST of $386, meaning that the amount it is owed by its debtors has increased by a total of **$4 246.**

GST on credit sales

GST charged on credit sales has no effect whatsoever on profit because it does not affect the sales revenue earned or the cost price of the sale. However, it will increase the debt owed by the debtor.

Further, both GST *charged on credit sales* and GST *received on cash sales* (recorded in Chapter 6) are levied on behalf of the ATO, and so must be forwarded to the ATO at sometime in the next 12 months. As a result, any GST charged on credit sales is therefore owed back to the ATO, increasing the GST payable.

Effect on the accounting equation

Assuming that the cost price of all credit sales – as determined in the stock cards – was $1 500, the overall effect of total credit sales on the accounting equation of Uptown Ceramics for April 2016 would be:

	Increase/Decrease/No effect	**Amount $**
Assets	**Increase** (increase **Debtors $4 246**, decrease Stock $1 500)	2 746
Liabilities	**Increase** (GST Clearing)	386
Owner's Equity	**Increase** (Sales $3 860 less Cost of Sales $1 500 = Profit)	2 360

REVIEW QUESTIONS 13.5

1. **Explain** why a credit sale is classified as revenue.
2. **State** which type of source document is used to verify all transactions recorded in the Sales Journal.
3. **Explain** how the cost price of a credit sale is determined.
4. **Explain** the role of the Sales Journal.
5. **Explain** why the source documents in the Sales Journal run in sequence.
6. **Explain** the effect of 'GST incurred on credit sales' on sales revenue.
7. **Explain** the effect of 'GST charged on credit sales' on GST payable to the ATO.
8. **State** the effect of a credit sale on each element of the accounting equation.

13.6 RECEIPTS FROM DEBTORS

Credit sales are recorded in the Sales Journal on the day the stock is sold, but the receipt from the debtor is recorded in the Cash Receipts Journal on the day the cash is received. Figure 13.12 shows the receipt to provide evidence of a receipt from a debtor.

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Figure 13.12 ***Receipt from a debtor: receipt***

Uptown Ceramics

12 South Gate Way,
Langwarrin,Victoria, 3910

ABN: 33 020 871 455

REC. 126

Date:	13 April 2016
Received from	Stellar Gallery
For	Progress payment on account
Amount	$1 000

As with a payment to a creditor, there is no GST to account for when cash is received from a debtor, because the GST is recognised and reported only at the time sales are made. This receipt would be recorded in the Cash Receipts Journal as is shown in Figure 13.13.

Figure 13.13 ***Receipt from a debtor: Cash Receipts Journal***

Cash Receipts Journal

Date	Details	Rec. No.	Bank	Debtors	Sales	Sundries	GST
April 2	Cash sales	123	**132**		120		12
5	Decorators' World	124	**300**	300			
8	Cash sales	125	**462**		420		42
13	Stellar Gallery	126	**1 000**	1 000			
18	Home Junction	127	**220**	220			
22	Cash sales	128	**319**		290		29
26	Capital contribution	129	**5 000**			5 000	
28	Stellar Gallery	130	**500**	500			
	TOTALS	**$**	**7 933**	**2 020**	**830**	**5 000**	**83**

Receipts from debtors will be frequent, and so recorded in their own classification column just like cash sales and GST. The total cash received from debtors by Uptown Ceramics in April 2016 is thus $2 020.

Effect on the accounting equation

The most common error in recording cash received from a debtor is to treat it as additional revenue, rather than as simply swapping one asset (Debtors) for another (Bank). The fact that *assets do not increase overall* means that a receipt from a debtor cannot be recorded as revenue – it does not fit the definition. In addition, recording a receipt from a debtor as revenue would be double counting; the revenue was already recorded – as a Credit sale – at the point of sale, when the goods were provided to the customer. The overall effect of receipts from debtors on the accounting equation of Uptown Ceramics for April 2016 would be:

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	Increase/Decrease/No effect	Amount $
Assets	**No effect** (increase Bank $2 020, decrease Debtors $2 020)	–
Liabilities	**No effect**	–
Owner's Equity	**No effect**	–

Calculating Debtors balance

Using the summaries from the Sales Journal and Cash Receipts Journal, we can calculate the total balance owed by debtors at the end of the reporting period. Assuming an opening Debtors balance of $760 as at 1 April 2016, the Debtors balance of Uptown Ceramics as at 30 April 2016 would be calculated using the formula shown in Figure 13.14.

Figure 13.14 ***Debtors formula***

Debtors balance at start	760	From the *previous* Balance Sheet
+ Credit sales incl. GST	4 246	From the Sales Journal
	5 006	
– Receipts from debtors	2 020	From the Cash Receipts Journal
Debtors balance at end	$2 986	Goes into the *next* Balance Sheet as a Current asset

This new balance of the total owed by debtors ($2 986) can now be reported as a Current asset in the Balance Sheet for Uptown Ceramics as at 30 April 2016.

REVIEW QUESTIONS 13.6

1. **State** the source document used to verify cash received from a debtor.
2. **State** one reason why 'receipts from debtors' are recorded in their own classification column in the Cash Receipts Journal.
3. **State** the effect of a receipt from a debtor on each element of the accounting equation.
4. **Explain** why a receipt from a debtor is not recognised as revenue.
5. **Show** the formula to calculate the balance of debtors at the end of the reporting period, **identifying** the sources of the information it uses.

13.7 CREDIT SALES AND SUBSIDIARY RECORDS

Just as individual credit purchases and payments to creditors are recorded in stock cards and Creditors records, individual credit sales and receipts from debtors are recorded in stock cards and Debtors records.

The stock card

The transaction detailed in Figure 13.10 – a credit sale of 16 vases for $70 plus $7 GST each (Invoice 91) would be recorded in the stock card as shown in Figure 13.15.

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Figure 13.15 ***Credit sale in the stock card***

Stock Item: Egyptian vases **Location:** Shelf 24
Stock Code: EV **Suplier:** A. Potter Studios

Date	Details	IN			OUT			BALANCE		
		Qty	Unit cost	Value	Qty	Unit cost	Value	Qty	Unit cost	Value
April 1	Balance							10	18	180
3	Inv. 29	25	20	500				10	18	180
								25	20	500
6	Inv. 91				10	18	180			
					6	20	120	19	20	380

As the stock leaves the business, it is recorded in the OUT column of the stock card, just like a cash sale, thereby decreasing the stock on hand. (The only difference is a credit sale is identified by an invoice number rather than a receipt number.)

Note that although each vase had a selling price of $70 (plus $7 GST), it is only the cost price of the stock that is recorded in the stock card. Applying First In, First Out assumes that the 10 vases from the $18 batch are sold first, with the remaining 6 taken from the $20 batch.

Debtors records

In addition to the stock cards, separate **Debtors records** will be maintained for each individual debtor, showing each individual transaction affecting that debtor's balance. Figure 13.16 shows the Debtors records for Uptown Ceramics, after all credit sales and receipts from debtors for April 2016 have been recorded.

Debtors record
a subsidiary accounting record which details each individual transaction with each individual debtor, and shows the balance owed by that debtor at any point in time

Figure 13.16 ***Debtors records***

DEBTOR – STELLAR GALLERY

Date	Details	Source document	Sales	Receipts	Balance
April 1	Balance				100
6	Sales/GST	Inv. 91	1 232		1 332
13	Receipt	Rec. 126		1 000	332
23	Sales/GST	Inv. 95	473		805
28	Receipt	Rec. 130		500	305

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DEBTOR – HOME JUNCTION

Date	Details	Source document	Sales	Receipts	Balance
April 1	Balance				220
9	Sales/GST	Inv. 92	990		1 210
18	Receipt	Rec. 127		220	990

DEBTOR – A. MINTY

Date	Details	Source document	Sales	Receipts	Balance
April 16	Sales/GST	Inv. 93	726		726

DEBTOR – DECORATORS' WORLD

Date	Details	Source document	Sales	Receipts	Balance
April 1	Balance				440
5	Receipt	Rec. 124		300	140
20	Sales/GST	Inv. 94	825		965

Credit sales plus the GST (as recorded in the sales journal) will *increase* the balance owed by a debtor, whereas Receipts from debtors (from the cash receipts journal) will *decrease* that balance.

Figure 13.17 shows the **Debtors schedule** for Uptown Ceramics as at 30 April 2016.

Debtors schedule
a listing of the name and balance of each debtor's record

Figure 13.17 Debtors schedule

UPTOWN CERAMICS

Debtors schedule as at 30 April 2016

Debtors	Balance $
Stellar Gallery	305
Home Junction	990
A. Minty	726
Decorators' World	965
Balance as per Debtors formula	**$2 986**

The same relationship between the schedule and the formula applies to both debtors and creditors – the total of the schedule **($2 986)** should match the figure calculated using the formula **($2 986).**

REVIEW QUESTIONS 13.7

1 **Explain** the effect of recording a credit sale in a stock card.
2 Referring to the stock card **explain** how a cash sale and a credit sale can be identified.
3 **State** three differences between a Debtors record and a Creditors record.

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13.8 BENEFITS OF USING SUBSIDIARY RECORDS FOR DEBTORS AND CREDITORS

The main benefits of using subsidiary records for debtors and creditors are:

1 Management of debtors/creditors

The records of individual transactions with each individual debtor/creditor allow for better management by helping to ensure that invoices are sent, debts are collected from debtors and paid to creditors on time, and late paying debtors are followed up.

2 Detection of errors

By checking the balance calculated using the formula against the Debtors/Creditors schedule errors can be detected, helping to ensure that the figures used in the Balance Sheet are *Reliable*, or free from bias.

3 Ease of reporting

By preparing a schedule, only one figure needs to be reported in the Balance Sheet, with insignificant details omitted. These details – like the names and balances of individual debtors/creditors – would not affect decision-making, so in reporting just the total, *Relevance* is upheld.

REVIEW QUESTIONS 13.8

1 **Explain** how subsidiary records can improve the management of debtors.
2 **Explain** how subsidiary records can improve the *Reliability* of the accounting reports.
3 Referring to one Qualitative Characteristic, **explain** why individual debtors and creditors are not reported in the Balance Sheet.

13.9 STATEMENT OF ACCOUNT

The first and most important thing to note about a **Statement of Account** is that it is not evidence of a single transaction with a creditor or debtor, but rather a summary of a number of transactions involving that debtor or creditor over a certain period. Because it is a list of transactions that have already occurred – and have already been recorded – the Statement of Account is not a source document that must be recorded. Figure 13.18 shows the statement of account from a creditor – A. Potter Studios – for April 2016.

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Figure 13.18 ***Statement of Account***

A. Potter Studios
ABN: 90 876 444 361
35 Rosella St, Frankston, VIC 3199

STATEMENT OF ACCOUNT

Account of:	Uptown Ceramics 12 South Gate Way, Langwarrin,Victoria, 3910 ABN: 33 020 871 455	For period: April 2016

Date	Details	Sales	Payments	Balance
April 3	Inv. 29	550		550
12	Payment received: (Chq. 261)		550	–
15	Inv. 35	660		660
23	Payment received: (Chq. 266)		660	–
29	Inv. 39	330		330
	Balance owing: 30 April 2016			**$330**

This Statement of Account summarises the various credit purchases made by Uptown Ceramics during April 2016, as well as the payments it made. Each transaction should be checked against the source document that was issued at the time to check its accuracy, and it may be a reminder to pay the creditor the balance owing, but no further recording is required when this statement is received.

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WHERE HAVE WE BEEN?

- A credit transaction occurs when the goods are exchanged, but the cash is not exchanged until a later date and is verified by an invoice.
- A credit purchase will be verified by a Purchase invoice, and recorded in the Purchases Journal, which summarises all credit purchases of stock in a reporting period.
- Credit purchases of stock are recorded in the IN column of the appropriate stock card, and increase the balance of stock on hand.
- A credit sale will be verified by a Sales invoice, and recorded in the Sales Journal, which summarises all credit sales in a reporting period.
- Credit sales are recorded (using the FIFO method) in the OUT column of the appropriate stock card, and decrease the balance of stock on hand.
- Individual Debtors and Creditors records are maintained to aid in the management of debtors and creditors.
- The balance of creditors/debtors at the end of the reporting period can be calculated using either a formula or a schedule.
- GST is recognised and reported only at the time the purchase or sale is made, rather than when cash is paid to a creditor or received from a debtor.

EXERCISES

EXERCISE 13.1
SOURCE DOCUMENTS

WB page 199

The following document was provided by the manager of Miller Time, a hat shop in Toorak.

Felt Good Felts

Invoice: 65

ABN: 33 209 111 023
Warrnambool

Terms: 2/7, n/30
Tax invoice

Charge to: Miller Time (ABN: 40 321 440 646)
Toorak Rd,Toorak, 3142

Date 2016	Details	Qty	Unit price $	Total $
Nov 3	Ladies' hats, white	5	50	250
	GST (10%)			25
			Total	275

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Required

- **a** **Identify** the source document, and **describe** the transaction it verifies.
- **b** **Explain** what is meant by the terms '2/7, n/30'.
- **c** **Record** this transaction in the appropriate special journal of Miller Time.
- **d** **Explain** why the GST incurred on credit purchases does not affect the valuation of stock.
- **e** **State** the effect of this transaction on each element of the accounting equation of Miller Time.

EXERCISE 13.2
PURCHASES JOURNAL

WB page 200

Sparks Electrical Supplies has provided the following list of transactions for July 2016.

July	2	Credit purchase of stock from ACDC Industries for $3 600 plus $360 GST (Inv. AI61)
	7	Bought stock on credit from Scott Supplies for $4 400 including $400 GST (Inv. 633)
	16	Purchased stock from Mickle and Sons for $3 300 inclusive of GST (Inv. M15)
	23	Purchased stock from Scott Supplies for $2 860 including $260 GST (Inv. 642)
	28	Received delivery of stock from ACDC Industries, at a cost of $2 700 plus $270 GST (Inv. AI73)

Required

- **a** **Explain** the role of the Purchases Journal.
- * **b** **Record** the transactions for July 2016 in the Purchases Journal of Sparks Electrical Supplies.
- **c** **Explain** why the source documents in the Purchases Journal do not run in sequence.
- **d** **Explain** the effect of 'GST incurred on credit purchases' on the GST payable to the ATO.

EXERCISE 13.3
PURCHASES JOURNAL AND CASH PAYMENTS JOURNAL

WB page 201

Shoes by Imelda purchases all its stock on credit. As at 31 August 2016, its Creditor records showed the following balances.

Style House	500
Fine Footwear	1 200
Johnny Choose	830
Total Creditors	**$2 530**

During September 2016, the following transactions occurred.

Sept.	1	Paid Fine Footwear $900 (Chq. 272)
	3	Purchased shoes on credit from Johnny Choose for $420 plus $42 GST (Inv. 34A)
	7	Paid wages – $720 (Chq. 273)
	8	Purchased stock from Style House for $825 including $75 GST (Inv. 1002)
	11	Paid $5 500 (GST included) for new Office Equipment (Chq. 274)
	14	Owner withdrew $450 cash (Chq. 275)
	16	Purchased stock from Fine Footwear for $360 plus GST (Inv. FF331)
	19	Paid Style House $700 (Chq. 276)
	21	Paid wages – $780 (Chq. 277)
	24	Credit purchase of stock from Style House for $600 plus $60 GST (Inv. 1017)
	27	Cash drawings – $490 (Chq. 278)
	30	Paid Johnny Choose $700 (Chq. 279)

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Required

* **a** **Record** the transactions for September 2016 in the journals of Shoes by Imelda.
b **Explain** the effect of the transaction on 30 September 2016 on the Balance Sheet of Shoes by Imelda.
c **Calculate** the total owed to creditors as at 30 September 2016.
d **Explain** why there is no GST to account for when cash is paid to a creditor.

EXERCISE 13.4
JOURNALS AND CREDITORS RECORDS

WB page 203

Macedon Mowers sells mowers and other gardening equipment. All stock is purchased on credit, and as at 1 April 2016, its Creditor records showed the following balances.

Bushman Tools	12 000
Viking Equipment	8 000
Melagar Mowers	13 900
Total Creditors	**$33 900**

During April 2016, the following transactions occurred.

April	2	Paid Viking Equipment $6 000 (Chq. 104)
	5	Owner withdrew $1 200 cash (Chq. 105)
	7	Purchased 10 mowers from Malegar Mowers for $260 (plus $26 GST) each (Inv. 008)
	8	Paid $940 wages (Chq. 106)
	10	Paid Malegar Mowers $10 000 (Chq. 107)
	12	Bought chainsaws from Viking Equipment for $6 000 plus $600 GST (Inv. VT15)
	13	Paid electricity bill $190 plus $19 GST (Chq. 108)
	18	Purchased mowers from Malegar Mowers for $8 250 including $750 GST (Inv. 019)
	19	Paid Viking Equipment $4 000 (Chq. 109)
	21	Owner withdrew $500 cash (Chq. 110)
	22	Paid $870 wages (Chq. 111)
	23	Purchased stock from Bushman Equipment for $8 800 GST included (Inv. 401C)
	24	Paid Malegar Mowers $3 500 (Chq. 112)
	27	Paid $143 for water bill including $13 GST (Chq. 113)
	28	Bought chainsaws from Viking Tools for $5 000 plus $500 GST (Inv. VT26)
	29	Paid Bushman Tools $12 000 (Chq. 114)

As at 1 April 2016, the stock card for Mowers showed 5 mowers on hand worth $250 each.

Required

* **a** **Record** the transactions for April 2016 in the journals of Macedon Mowers.
b **Record** the transaction on 7 April 2016 in the stock card for mowers.
c **Record** the transactions for April 2016 in the Creditors records of Macedon Mowers.
d **Prepare** a Creditors schedule for Macedon Mowers as at 30 April 2016.
e **Explain** how the preparation of a Creditors schedule can improve the reliability of the accounting reports.

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EXERCISE 13.5

page 205

SOURCE DOCUMENTS

Opulence Furniture sells leather lounge suites from a shop in Mornington, and has provided the following source document.

OPULENCE FURNITURE

ABN: 19 900 016 252

Main St, Mornington, Vic., 3931

Invoice: 901

Terms: Net 30 days

TAX INVOICE Duplicate

5 August 2016

Charge to: Davey Street Clinic
Davey St Frankston Victoria 3199

Item	Description	Qty	Unit Cost	$
C3	Chesterfield – 3 seater	3	3 600	10 800
	GST			1 080
	Total		$	11 880

Opulence Furniture sells all its stock at a 100% mark-up.

Required

- **a** **Identify** the source document above, and describe the transaction it verifies.
- **b** **Explain** why it is important that credit terms are stated on an invoice.
- **c** **Explain** why this transaction is classified as revenue.
- **d** **Record** this transaction in the appropriate journal of Opulence Furniture.
- **e** **State** the effect of this transaction on each element of the accounting equation of Opulence Furniture.

EXERCISE 13.6

page 206

SALES JOURNAL

Oz Business Machines sells photocopiers and fax machines and has provided the following list of its transactions for February 2016.

Feb.	4	Sold 1 photocopier on credit to CS Accounting for $1 230 plus $123 GST (Inv. 34)
	9	Sold 1 fax machine to Helix Science Lab for $330 plus GST (Inv. 35)
	15	Sold 1 fax machine to Finch Property for a total of $297 including $27 GST (Inv. 36)
	22	Sold 2 photocopiers to Wills Conveyancing for $1 320 plus $132 GST each (Inv. 37)
	27	Sold 1 fax machine to CS Accounting for $330 inclusive of GST (Inv. 38)

All stock is sold on credit at a 50% mark-up.

Required

- **a** **State** the number which will be used on the next sales invoice issued by Oz Business Machines.
- * **b** **Record** the transactions for February 2016 in the Sales Journal of Oz Business Machines.

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c Referring to your answer to part 'b', **state** two reasons why the total of the Sales Journal is unlikely to be the balance owed by debtors as at 28 February 2016.
d **Explain** the effect of GST charged on credit sales on the GST payable to the ATO.
e **Calculate** Gross Profit for Oz Business Machines for February 2016.

EXERCISE 13.7
SALES JOURNAL AND CASH RECEIPTS JOURNAL

WB page 207

Hot Glass sells glass products such as wine glasses, vases and bowls. As at 1 October 2016, its Debtors records showed the following balances.

Zucchets Restaurant	2 400
Barlington Hotel	4 500
Total Debtors	**$6 900**

During October 2016, the following transactions occurred.

Oct.	1	Received $1 500 cash from Zucchets Restaurant (Rec. 29)
	3	Sold stock on credit to Zucchets Restaurant for $420 plus $42 GST (Inv. 120)
	4	Cash sales – $180 plus GST (Rec. 30)
	6	Received loan from Fincorp – $10 000 to purchase new display cabinets (BS)
	9	Credit sales to Barlington Hotel of $1 320 inclusive of GST (Inv. 121)
	10	Zucchets Restaurant paid $700 cash (Rec. 31)
	13	Sold stock to Ninos Café for $600 plus $60 GST (Inv. 122)
	16	Sold stock on credit to Club 84 for $792 including $72 GST (Inv. 123)
	18	Barlington Hotel settled previous months account in full (Rec. 32)
	22	Received full balance owing from Ninos Café (Rec. 33)
	25	Sales of $120 plus $12 GST (Rec. 34)
	27	Sales to Barlington Hotel worth $2 100 plus GST (Inv. 124)
	31	Received $300 cash from Club 84 (Rec. 35)

Credit terms are strictly 30 days.

Required

a **Explain** why the transaction on 1 October 2016 is not classified as revenue.
b **Explain** why there is no GST to account for when cash is received from a debtor.
* **c** **Record** the transactions for October 2016 in the journals of Hot Glass.
d **Calculate** the balance owed by debtors as at 31 October 2016.
e **Explain** whether all debtors have met the credit terms during October 2016.

EXERCISE 13.8
JOURNALS AND DEBTORS RECORDS

WB page 209

Loony Letterboxes specialises in the sale of novelty letterboxes and as at 1 May 2016, its Debtors records showed the following information.

Harry's Hardware	3 400
Trident 20	2 800
Total Debtors	**$6 200**

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During May 2016, the following transactions occurred.

May	1	Sold 40 letterboxes on credit to Best Value for $140 (plus $14 GST) each (Inv. A314)
	4	Cash sales – $1 232 including $112 GST (Rec. 390)
	6	Received cash from Harry's Hardware in full settlement of April balance (Rec. 391)
	10	Sold stock to Trident 20 for $3 500 plus GST (Inv. A315)
	11	The owner contributed $12 000 cash (Rec. 392)
	15	Credit sales to Harry's Hardware worth $6 300 plus $630 GST (Inv. A316)
	18	Sales – $770 including GST (Rec. 393)
	21	Best Value paid $3 000 cash (Rec. 394)
	23	Sold stock to GlenCo Homes for $10 780 including $980 GST (Inv. A317)
	27	Received $2 000 from Trident 20 (Rec. 395)
	31	Harry's Hardware purchased stock for $3 200 plus GST (Inv. A318)

As at 1 May 2016, the stock cards showed there were 55 Elvis letterboxes on hand.

30 @ $90	2 700
25 @ $95	2 375
Value of Elvis letterboxes	**$5 075**

Required

a **Record** the transaction on 1 May 2016 in the stock card for Elvis letterboxes.

* **b** **Record** the transactions for May 2016 in the journals of Loony Letterboxes.

c **Record** the transactions for May 2016 in the Debtors records of Loony Letterboxes.

d **Prepare** a Debtors schedule for Loony Letterboxes as at 31 May 2016.

e **Explain** why transactions with debtors should be recorded in both special journals and Debtors records.

EXERCISE 13.9

WB page 212

CREDIT TRANSACTIONS

Meg Walker operates a sports store called Walker Sports. At 30 June 2016, the firm's subsidiary records showed the following balances.

Debtors	**$**
Atwell High School	4 100
Jimbaroo	930
South Park Tennis Club	260
Total Debtors	**$5 290**

Creditors	**$**
Fitness Regime	2 300
Equipped Gear	1 700
Total Creditors	**$4 000**

The following transactions occurred during July 2016.

July	1	Paid monthly rent of $700 plus $70 GST (Chq. 3003)
	2	Sold stock on credit to Atwell High School for $1 500 plus GST (Inv. 109)
	3	Received $500 cash from Jimbaroo (Rec. 57)
	4	Paid Equipped Gear $1 000 on account (Chq. 3004)
	5	South Park Tennis Club purchased sporting goods for $385 including $35 GST (Inv. 110)
	7	Purchased stock on credit from Equipped Gear for $2 400 plus $240 GST (Inv. 16X)
	8	Paid wages of $620 (Chq. 3005)
	9	Purchased goods worth $3 960 including GST from Fitness Regime (Inv. 403)
	11	Owner withdrew $300 cash (Chq. 3006)

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12 Credit sale to Filton Rovers Football Club for $320 plus $32 GST (Inv. 111)
14 Cash sales of $430 plus $43 GST (Rec. 58)
16 Paid Fitness Regime balance owing from June (Chq. 3007)
17 Atwell High School paid cash to settle June account (Rec. 59)
20 Bought stock from Equipped Gear for $2 750 including $250 GST (Inv. 17Y)
22 Paid wages of $600 (Chq. 3008)
23 Sold stock to Atwell High School – total invoice price $880 including GST (Inv. 112)
24 Purchased sporting goods from Fitness Regime for $1 200 plus GST (Inv. 431)
25 Sales of $150 plus $15 GST made to A.Winter (Rec. 60)
27 Paid advertising worth $290 plus $29 GST (Chq. 3009)
28 South Park Tennis Club paid full amount owing (Rec. 61)
29 Paid Equipped Gear $1 000 on account (Chq. 3010)
30 Sold sporting goods to Jimbaroo for $495 including $45 GST (Inv. 113)
31 Received $15 interest on bank account (BS)

Required

* **a** **Record** the transactions for July 2016 in the journals of Walker Sports.

b Using the appropriate formula, **calculate** the balance of Debtors and Creditors as at 31 July 2016.

c **Record** the transactions for July 2016 in the Debtors and Creditors records of Walker Sports.

d **Prepare** a Creditors schedule and a Debtors Schedule for Walker Sports as at 31 July 2016.

e **Explain** how the use of Debtors records can improve the management of debtors.

EXERCISE 13.10
STATEMENT OF ACCOUNT

WB page 216

The owner of The Artist's Palette has received the following source document in the mail.

ART WORLD
ABN: 68 803 200 163
Flinders Lane
Melbourne Victoria 3000

5 April 2016
Acc: 1002

STATEMENT OF ACCOUNT

Statement for:	**The Artist's Palette** (ABN: 54 629 471 822) Flinders Lane Melbourne 3000			
Date	**Particulars**	**Debit**	**Credit**	**Balance**
March 1	Balance b/fwd			1 260
15	Inv. 1772	440		1 700
23	Thank you – payment		1 000	700
30	Inv. 1786	352		1 052

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Required

a **Explain** the function of a Statement of Account.

b **Explain** how Art World would be reported in the Balance Sheet of The Artist's Palette.

c **Explain** how The Artist's Palette would be reported in the Balance Sheet of Art World.

EXERCISE 13.11
SOURCE DOCUMENTS

WB page 217

Seeing is Believing is a store which sells video surveillance equipment, and has provided the following source documents:

DOCUMENT A

Seeing is Believing

ABN: 90 872 221 004
Electronic Security Systems
Laverton Victoria 3026

Invoice 44
Terms: 5/7, n/30
8 May 2016

Charge to: Cullinans Video Shop (ABN: 34 096 558 391)
Moore St Moe Victoria 3825

Qty	Item	Unit cost	Sub-total
4	Sensor camera	190	760
1	Hi definition monitor	140	140
	GST		90
		Total $	990

DOCUMENT B

Date 17th May 2016
To Hi-Tech Cameras
For Settlement of account

Bal c/fwd $
Deposits $
Amount $1 400
Balance $
CHQ No. 395

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Required

a **State** whether these source documents relate to the input, processing or output stage of the accounting process.
b **Identify** the journal in which each document would be recorded.
c **Name** the asset which increases as a result of the transaction in Document A.
d **Explain** why the transaction in Document A should be reported as revenue for May 2016.
e **Explain** why Document B does not specify a GST amount.
f **Explain** the effect of Document B on the Balance Sheet of Seeing is Believing.

EXERCISE 13.12
JOURNALS AND SUBSIDIARY RECORDS

WB page 218

Alex Micari owns Brought to Book, a shop that sells antique and rare books. All books are purchased on credit from Felix Antiques and Oscar's Books, and sales are made on cash and credit terms. As at 1 August 2016, the Debtors and Creditors records showed the following balances.

St Swithin's University	720
Victoria College	1 100
Total Debtors	**$1 820**
Felix Antiques	410
Oscar's Books	260
Total Creditors	**$ 670**

The journals for August 2016 showed the following.

Sales Journal

Date	Debtor	Inv. number	Sales	GST	Total Debtors
Aug. 2	St Swithin's University	45	400	40	440
9	Macrae Institute	46	520	52	572
15	Victoria College	47	300	30	330
24	St Swithin's University	48	390	39	429
29	Victoria College	49	560	56	616
	TOTALS		**2 170**	**217**	**2 387**

Purchases Journal

Date	Creditor	Inv. number	Stock	GST	Total Creditors
Aug. 6	Felix Antiques	Q54	270	27	297
12	Oscar's Books	1092	550	55	605
20	Oscar's Books	1105	320	32	352
27	Felix Antiques	Q67	350	35	385
	TOTALS		**1 490**	**149**	**1 639**

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Cash Receipts Journal

Date	Details	Rec. No.	Bank	Debtors	Sales	Sundries	GST
Aug. 1	Cash sales	202	165		150		15
5	St Swithin's University	203	400	400			
8	Cash sales	204	187		170		17
13	Victoria College	205	1 100	1 100			
18	Macrae Institute	206	572	572			
22	Cash sales	207	132		120		12
26	Loan – Uni Bank	208	8 000			8 000	
28	St Swithin's University	209	320	320			
	TOTALS		**10 876**	**2 392**	**440**	**8 000**	**44**

Cash Payments Journal

Date	Details	Chq. No.	Bank	Creditors	Drawings	Wages	Sundries	GST
Aug. 3	Stationery	59	132				120	12
4	Oscar's Books	60	260	260				
7	Drawings	61	390		390			
11	Wages	62	510			510		
12	Felix Antiques	63	350	350				
14	Advertising	64	198				180	18
17	Oscar's Books	65	400	400				
21	Drawings	66	320		320			
25	Wages	67	470			470		
30	Felix Antiques	68	150	150				
	Total		**3 180**	**1 160**	**710**	**980**	**300**	**30**

Required

- **a** **Explain** the role of special journals in the accounting process.
- **b** **Identify** the two subsidiary records in which the transaction on 2 August 2016 would be recorded.
- **c** **State** two reasons why the transaction in on 4 August 2016 should not be reported as an expense.
- **d** **Using** the appropriate formula, calculate the balance of Creditors and Debtors as at 31 August 2016.
- **e** **Complete** the Creditors record for Oscars Books as at 31 August 2016
- **f** **Complete** the Debtors record for St Swithin's University as at 31 August 2016.
- **g** Referring to one Qualitative Characteristic, **explain** why the Balance Sheet does not list each individual creditor.

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Where are we headed?

After completing this chapter, you should be able to:

- **explain** the effect of credit transactions on the three general-purpose accounting reports, including reference to appropriate Accounting Principles and Qualitative Characteristics
- **prepare** accounting reports which show the effect of credit transactions on cash and profit
- **explain** the difference between cash and profit
- **report** for debtors, creditors and GST in the Balance Sheet
- **calculate** and **explain** what is measured by Debtors Turnover and Creditors Turnover
- **explain** the relationship between Stock Turnover, Debtors Turnover and Creditors Turnover
- **suggest** strategies to manage debtors.

CHAPTER 14

REPORTING AND MANAGING CREDIT TRANSACTIONS

KEY TERMS

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

- accrual accounting
- GST payable
- GST receivable
- Debtors Turnover (DTO)
- Creditors Turnover (CTO).

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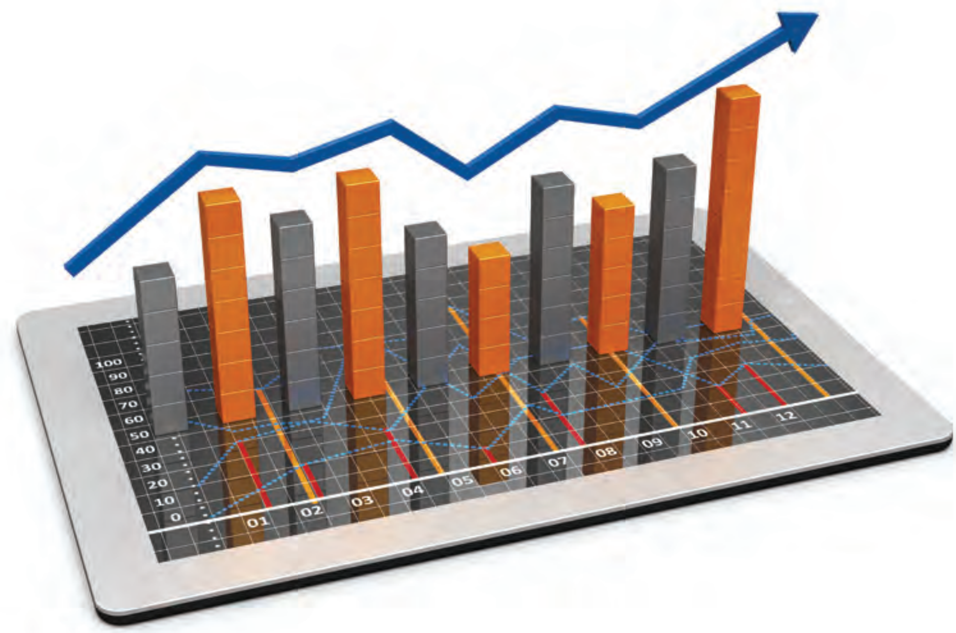
14.1 ACCOUNTING REPORTS AND CREDIT TRANSACTIONS



Chapter 13 pointed out that a credit sale or purchase is in fact two separate (but related) transactions: an exchange of *goods*, and an exchange of *cash*. Because each part of the transaction will occur on a different day, be verified by a different source document, and be recorded in a different journal, then the two parts to a credit transaction will be reported differently in the accounting reports.

The most basic function of an accounting report is to provide the owner of the business with financial information in order to aid decision-making. So far we have studied three general-purpose accounting reports:

- *Statement of Receipts and Payments* – shows cash receipts and payments and the change in a firm's bank balance over a reporting period
- *Income Statement* – shows revenues earned and expenses incurred in a particular reporting period.
- *Balance Sheet* – shows assets, liabilities and Owner's Equity at a particular point in time.

The information to be presented in these reports is created when transactions are recorded in journals and subsidiary records (like stock cards and Debtors and Creditors records). So far, our recording process is:

Source documents	→	**Recording in Journals**	→	**Subsidiary records**
Receipts		Cash Receipts Journal		Debtors records
Cheque butts		Cash Payments Journal		Creditors records
Sales invoices		Sales Journal		Stock cards
Purchase invoice		Purchase Journal		

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Whereas Chapter 13 was concerned with *recording* credit transactions, this chapter concentrates on how to *report* the effects of those credit transactions.

REVIEW QUESTIONS 14.1

1. **Explain** the role of accounting reports.
2. **Explain** what is shown in each of the three general-purpose accounting reports.
3. **Name** the source documents we studied so far, and the accounting records in which they would be recorded.
4. **Explain** the relationship between accounting records and accounting reports.

14.2 THE STATEMENT OF RECEIPTS AND PAYMENTS

Although the Statement of Receipts and Payments is concerned only with cash transactions, this does not mean it is unaffected by credit transactions. True, when goods are sold or purchased on credit, there is no cash exchanged, so the actual credit purchase or sale will *not* be reported in the Statement of Receipts and Payments. However, the payment of cash to a creditor, or the receipt of cash from a debtor *does* involve cash, and so must be reported as a cash receipt or cash payment in the Statement of Receipts and Payments.

EXAMPLE

Chas Windsor owns Full Boards, a shop which sells surfboards and surf gear in Torquay.

The firm's assets and liabilities as at 30 September 2016 are listed below.

Assets	$	Equities	$
Bank	3 500	Creditors	12 600
Stock	21 000	GST Payable	310
Debtors	8 300	Loan – QS Finance	30 000
Shelving	35 000	Capital – Windsor	36 890
Office Equipment	12 000		
Total Assets	**$ 79 800**	**Total Equities**	**$ 79 800**

Stock is sold on both cash and credit terms, and the business has provided the following information from its accounting records for October 2016.

Sales Journal

Date	Debtor	Invoice number	Sales	GST	Total Debtors
Oct.	**TOTALS**		20 000	2 000	22 000

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Purchases Journal

Date	Creditor	Invoice number	Stock	GST	Total Creditors
Oct.	**TOTALS**		18 000	1 800	19 800

Cash Receipts Journal

Date	Details	Rec. No.	Bank	Debtors	Sales	Sundries	GST
Oct.	Capital Contribution					1 000	
	TOTALS		**30 200**	16 000	12 000	1 000	1 200

Cash Payments Journal

Date	Details	Chq. No.	Bank	Creditors	Drawings	Wages	Sundries	GST
Oct.	Freight In						700	
	Loan – Principal						750	
	Interest						150	
	Advertising						1 300	
	Rent						2 000	
	TOTALS		**32 900**	17 000	3 700	6 900	4 900	400

Additional information from the stock cards:

Stock on hand as per stocktake as at 31 October 2016	$21 680
Cost of Sales for October 2016	16 900
Stock loss for October 2016	420

Figure 14.1 shows the Statement of Receipts and Payments for Full Boards for October 2016.

Figure 14.1 ***Statement of Receipts and Payments***

FULL BOARDS

Statement of Receipts and Payments for October 2016

	$	$
Cash Receipts		
Cash Sales	12 000	
Receipts from Debtors	16 000	
Capital Contribution	1 000	
GST Received	1 200	30 200
Less Cash Payments		
Payments to Creditors	17 000	
Drawings	3 700	
Wages	6 900	
GST Paid	400	
Freight In	700	
Loan Principal	750	
Interest	150	
Advertising	1 300	
Rent	2 000	32 900
Cash Surplus (Deficit)		**(2 700)**
Add Bank Balance at Start (1 October 2016)		**3 500**
Bank Balance at End (31 October 2016)		**800**

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The Purchases Journal and Sales Journal only record sales and purchases made on credit, so the information they contain will *not* be included in the Statement of Receipts and Payments. Note also that Cost of Sales and Stock loss – as determined in the stock cards – are omitted from the Statement of Receipts and Payments because they represent an outflow of stock, not cash.

In fact, the Statement of Receipts and Payments will report only the information contained in the Cash Receipts Journal and Cash Payments Journal, as these cash journals record all cash received and paid in a reporting period.

STUDY TIP

If an item is recorded in a cash journal, it is reported in the Statement of Receipts and Payments – no questions asked!

REVIEW QUESTIONS 14.2

1 **Explain** the role of the Statement of Receipts and Payments.
2 **Explain** the role of cash journals in the preparation of a Statement of Receipts and Payments.
3 **Explain** how the following items are reported in the Statement of Receipts and Payments:
   - capital contribution
   - credit sales
   - payments to creditors
   - Cost of Sales.

14.3 THE INCOME STATEMENT

Whereas the Statement of Receipts and Payments reports on cash received and paid in a reporting period, the Income Statement reports revenues earned and expenses incurred in a reporting period. Remember the definitions of revenues and expenses from Chapter 8.

Revenue an inflow of economic benefits (or saving in an outflow) in the form of an increase in assets or decrease in liabilities, which leads to an increase in owner's equity

Expense an outflow or consumption of economic benefits (or reduction in an inflow) in the form of a decrease in assets or increase in liabilities, which leads to a decrease in owner's equity

Recognising revenues

These definitions do not refer to revenues as cash received, but *rather inflows of economic benefits*. The economic benefit may be cash, but it does not have to be, meaning that revenue should be recognised not when the cash is received, but when the *economic benefit* is received and the revenue is earned.

Let's apply this definition to credit sales. When a credit sale is made (and the goods are provided to the customer), an *inflow of future economic benefits* occurs, in the form an *increase in assets* (Debtors), and this inflow *increases owner's equity*. Despite the fact that no cash is received on the day the sale is made, credit sales fits the definition of revenue perfectly, so it must be reported in the Income Statement as revenue. Failing to include credit sales as revenue would understate Net Profit and thus undermine the *Relevance* of the Income Statement, making it less useful for decision-making (which is its primary purpose!).

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What about the other half of a credit sale – receipts from debtors? When cash is received from a debtor there is an *inflow of economic benefits* (in the form of cash), but it does **not** *increase assets overall* because Debtors *decreases by the same amount*. A receipt from a debtor is in fact just swapping one asset (Debtors) for another (Bank); there is no increase in Owner's Equity, so it cannot be reported as revenue, and should be omitted from the Income Statement.

STUDY TIP

Recognising receipts from debtors as revenue would be counting it twice – once when the goods are sold, and a second time when the cash is received.

Recognising expenses

A similar concept applies to expenses; expenses should be recognised when the *outflow* or *consumption of economic benefits* occurs (i.e. when it is incurred), not when the cash is paid. For instance, we will recognise Cost of Sales and Stock loss when the stock leaves the shop, even though no cash is involved.

How does this affect the reporting of credit transactions? Even though credit purchases lead to an overall *increase in liabilities* (Creditors increases more than GST payable decreases), they also lead to an *increase in assets* (Stock), and so there is no effect on Owner's Equity as is demanded by the definition. As a result, credit purchases cannot be reported as an expense and must be omitted from the Income Statement.

Payments to creditors has a different effect on the accounting equation, but it does not fit the definition of an expense either. Cash paid to a creditor will decrease assets in Bank but will also decrease liabilities (in the form of Creditors). The fact that assets and liabilities both decrease means that there is no effect on Owner's Equity. Therefore, payments to creditors fails to meet the definition of an expense on two counts, and so must be omitted from the Income Statement.

An expense is recorded in relation to stock, but it is represented in the Cost of sales figure, which shows the *outflow of economic benefits* in the form of a *decrease in assets* (stock), which *decreases Owner's Equity*. Cost of Sales is of course recorded and reported when the stock is sold, not when it purchased (Credit purchases) or paid for (Payments to creditors).

Figure 14.2 shows the Income Statement for Full Boards for October 2016.

STUDY TIP

Credit purchases are not actually reported in any of the reports, but the information is used to determine the balance owing to creditors (see below).

STUDY TIP

Remember, Cost of Sales is determined in the stock cards, and will include stock sold on both cash and credit terms.

Figure 14.2 **Income Statement**

FULL BOARDS

Income Statement for October 2016

Revenue	**$**	**$**
Cash Sales	12 000	
Credit Sales	20 000	32 000
Less Cost of Goods Sold		
Cost of Sales	16 900	
Freight In	700	17 600
Gross Profit		**14 400**
Less Stock Loss		420
Adjusted Gross Profit		**13 980**
Less Other Expenses		
Interest on Loan	150	
Wages	6 900	
Advertising	1 300	
Rent	2 000	10 350
Net Profit		**$3 630**

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Note that credit sales as recorded in the Sales Journal has been reported as a revenue item, but only the sales figure of $20 000 has been included – the GST component is not revenue and has been excluded. (The GST charged on credit sales does not increase Owner's Equity – it increases the GST payable to the ATO.)

Determining profit is actually comparing the revenue *earned* in the current reporting period against the expenses *incurred* in the current reporting period. That is:

Profit = Revenue *earned* in the current reporting period
Less
Expenses incurred in the current reporting period

This is the essence of what is known as **Accrual Accounting**.

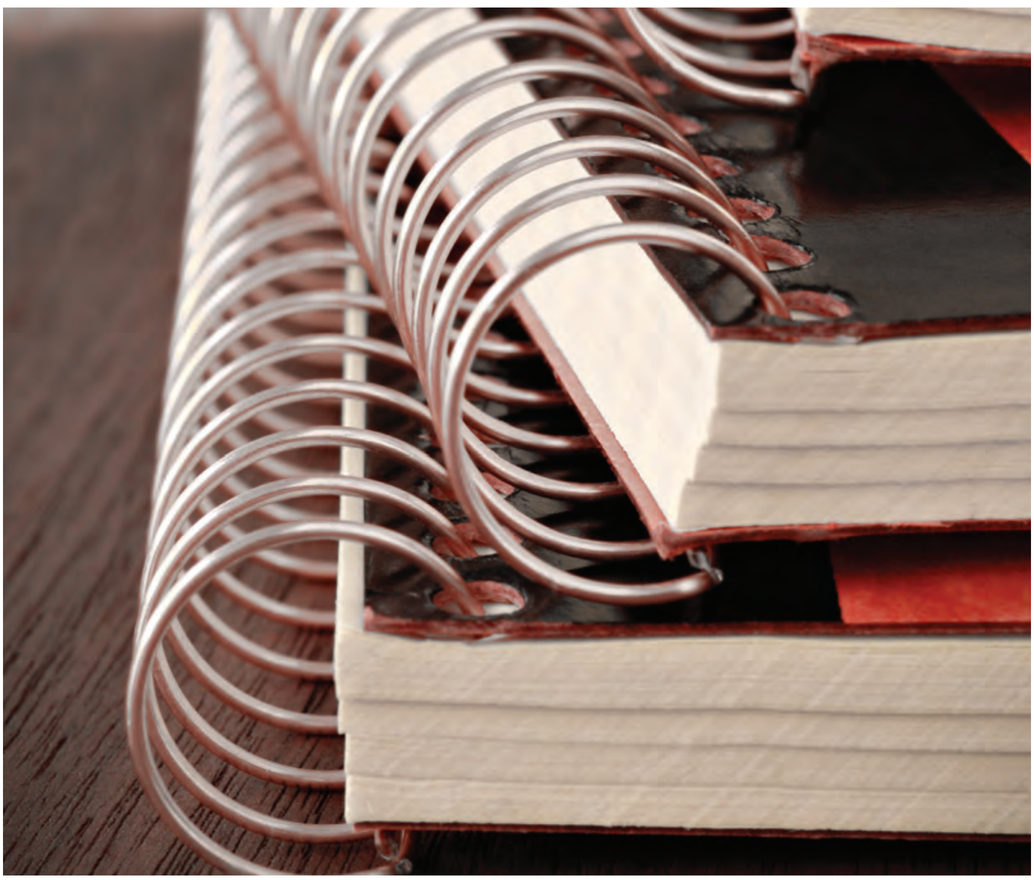
STUDY TIP

Whether credit and cash sales are reported separately or as one figure, depends entirely on the demands of the owner – either method will produce the same net profit figure.

Accrual accounting determining profit by recognising revenues as earned when the good/service is provided, and expenses as incurred when the benefit is consumed

REVIEW QUESTIONS 14.3

1 **Explain** why credit sales is classified as revenue.
2 Referring to one Qualitative Characteristic, **explain** why credit sales must be included in the Income Statement.
3 **Explain** why receipts from debtors is not reported in the Income Statement.
4 **Explain** why credit purchases and payments to creditors are not classified as expenses.
5 **Define** the term 'Accrual Accounting'.
6 **Explain** why GST charged on credit sales is not reported in the Income Statement.



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14.4 THE BALANCE SHEET

The rules of double-entry accounting dictate that every transaction – cash or credit – must affect the accounting equation (and the Balance Sheet on which it is based) in at least two ways, and those effects must balance. How does this apply to credit transactions?

Given that credit sales is reported as revenue in the Income Statement, it will obviously affect the Net Profit figure reported in the Balance Sheet. The other effects are to increase the balance owed by Debtors, and the GST payable owed to the ATO. Receipts from debtors, however, will increase Bank and decrease Debtors, leaving total assets unchanged. Credit purchases will increase Creditors and Stock, while decreasing the GST payable. Payments to creditors still simply decrease both Bank and Creditors.

This seems like a fairly complicated set of changes to remember, but in practice it is much simpler. For a start, the effect of receipts from debtors and payments to creditors – in fact, *all* cash receipts and payments – is already summarised and reported in the Statement of Receipts and Payments. Similarly, the effect of credit sales on Net Profit is reported by the Income Statement. This means that the only other changes to account for relate to:

- Debtors
- Creditors
- GST balance.

Debtors

In Chapter 13, we discussed the role of the Debtors schedule in calculating the balance owed by debtors at the end of the reporting period. In order to check this figure, or where this information is unavailable, the Debtors balance could also be calculated using the Debtors formula. The Debtors formula for Full Boards is shown in Figure 14.3.

Figure 14.3 ***Debtors formula***

	Debtors balance at start	8 300	From the *previous* Balance sheet
+	Credit sales incl. GST.	22 000	From the Sales Journal
		30 300	
–	Receipts from debtors	16 000	From the Cash Receipts Journal
	Debtors balance at end	$14 300	Goes into the *next* Balance Sheet as a Current asset

Debtors would of course be reported as a Current Asset, as the future economic benefit controlled by the business will be received within 12 months.

Creditors

Exactly the same approach can be taken with creditors; both the Creditors schedule and the Creditors formula should calculate the same balance owing at the end of the reporting period. Figure 14.4 shows the creditors formula for Full Boards.

STUDY TIP

Choose between the formula and schedule to calculate debtors or creditors based on the information available in the question.

Figure 14.4 ***Creditors formula***

	Creditors balance at start	12 600	From the *previous* Balance Sheet
+	Credit purchases incl. GST	19 800	From the Purchases Journal
		32 400	
–	payments to creditors	17 000	From the Cash Payments Journal
	Creditors balance at end	$15 400	Goes into the *next* Balance Sheet as a Current liability

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Because the business has a *present obligation* to make an *economic sacrifice* in the next 12 months, Creditors will be reported as a Current liability.

GST balance

As we have noted before, businesses charge and collect the GST on behalf of the ATO, so any GST received (on cash sales) or charged (on credit sales) will be treated as a Current liability. However, any GST paid (on cash purchases) or incurred (on credit purchases) will be forwarded to the ATO by the supplier, and so is deducted from any GST liability. Figure 14.5 shows the formula to calculate the GST balance, using the data from Full Boards for October 2016.

Figure 14.5 ***GST formula***

	GST balance at start	310	From the *previous* Balance Sheet
+	GST received on cash sales	1 200	From the Cash Receipts Journal
+	GST charged on credit sales	2 000	From the Sales Journal
		3 510	
–	GST paid cash purchases	400	From the Cash Payments Journal
–	GST incurred on credit purchases	1 800	From the Purchases Journal
	GST balance at end	$1 310	Goes into the *next* Balance Sheet as GST payable

The figure calculated using this formula will determine whether the business has GST payable to pay to the ATO, or GST receivable from the ATO.

GST payable

If the GST received and charged on sales is greater than GST paid and incurred on purchases, then the business will have a debt to the ATO, and the GST will be reported in the Balance Sheet as a current liability called **GST payable**. That is, the GST will be a present obligation to make an economic sacrifice (by paying the ATO a GST settlement) in the next 12 months. (Given that selling prices are usually higher than cost prices, GST on sales will usually be higher than GST on purchases, so GST payable will be the most likely GST outcome.)

However, if the GST paid and incurred on purchases is greater than the GST received and charged on sales, the business will end up paying more GST than required. This **GST receivable** will be reported in the Balance Sheet as a current asset because it is a resource controlled by the business that will bring a future economic benefit (when the refund is received) in the next 12 months. (Although this is less likely than GST payable, GST receivable could occur if large outlays are made to purchase non-current assets, or stock that has not yet sold.)

The Balance Sheet that incorporates these effects is shown in Figure 14.6.

GST payable
GST owed by the business to the ATO when the amount of GST the business has received on its fees is greater than the GST it has paid to its suppliers

GST receivable
GST owed to the business by the ATO when the amount of GST the business has paid to its suppliers is greater than the GST it has received on its fees

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Figure 14.6 ***Balance Sheet***

FULL BOARDS

Balance Sheet as at 31 October 2016

Current Assets	**$**	**$**	**Current Liabilities**	**$**	**$**
Bank[1]	800		Creditors[5]	15 400	
Stock[2]	21 680		GST Payable[6]	1 310	
Debtors[3]	14 300	36 780	Loan – QS Finance[7]	9 000	25 710
Non-Current Assets			**Non-Current Liabilities**		
Shelving[4]	35 000		Loan – QS Finance[7]		20 250
Office Equipment[4]	12 000	47 000	**Owner's Equity**		
			Capital – Windsor[8]	37 890	
			+ Net Profit[9]	3 630	
				41 520	
			Less Drawings[10]	3 700	37 820
Total Assets	**$**	**83 780**	**Total Equities**	**$**	**83 780**

Notes to the Balance Sheet

1	Bank	closing balance of the Statement of Receipts and Payments
2	Stock	determined by the physical stocktake
3	Debtors	determined by the Debtors schedule / Debtors formula
4	Shelving/Office equipment	no change from previous Balance Sheet
5	Creditors	determined by Creditors formula / Creditors schedule
6	GST Payable	determined using GST formula
7	Loan-QS Bank	$30 000 loan less $750 principal repayment; $750 per month for 12 months means $9 000 is current, and remainder is non-current
8	Capital	previous figure plus $1 000 capital contribution
9	Net Profit	from the Income Statement
10	Drawings	from the Statement of Receipts and Payments

REVIEW QUESTIONS 14.4

1. **Show** the formula to calculate the balance of Debtors at the end of the period.
2. **Show** the formula to calculate the balance of Creditors at the end of the period.
3. **Show** the formula to calculate the GST balance at the end of the period.
4. **Explain** the circumstances in which the GST balance would be classified as a current liability.
5. **Explain** the circumstances in which the GST balance would be classified as a current asset.

14.5 MANAGING DEBTORS

As we have seen, credit sales is classified as revenue because when the sale is made, a future economic benefit – in the form of Debtors – is created. If credit sales are significant, then so too will be the amount owed by debtors, making the management of debtors vital to the success of a small business. After all, there is little point in generating high credit sales if the cash is never received from debtors.

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Primarily, management of debtors involves ensuring that debts are collected from debtors in full, and on time, so that cash is available when needed, and bad debts are minimised. Management of this kind requires detailed accounting information, information that should be generated by the accounting system. The system we have developed provides information about debtors via:

- Debtors records
- Debtors Turnover.

Debtors records

As was explained in Chapter 13, Debtors records detail each individual transaction with each individual debtor. By examining these records, the owner can identify slow-paying debtors, and then take steps to recover the cash.

Some larger (but still small) businesses may even employ an accounts clerk whose sole role is to manage debtors, by issuing invoices, collecting cash and making reminder calls to those who are overdue. Using the Debtors records to give this type of attention to individual debtors can be a very effective approach to managing debtors.

Debtors Turnover

Examining the Debtors records will give specific and detailed information about individual debtors, but will not give an overview of the effectiveness of the firm's debtor management *policies*. These general principles should be applied to all debtors, and should ensure that the vast bulk of debtors meet the credit terms offered.

The overall effectiveness of debtor management policies can be assessed by calculating **Debtors Turnover (DTO)** – the average number of days it takes to collect cash from debtors.

Debtors Turnover (DTO) an efficiency indicator which measures the average number of days it takes for a business to collect cash from its debtors.

Debtors Turnover formula

$$\textbf{Debtors Turnover (DTO)} = \frac{\textbf{Average debtors} \times \textbf{365}}{\textbf{Credit sales}}$$

Because Credit sales is earned over a year, but Debtors is measured at a particular point in time, average debtors is used in the calculation of Debtors turnover. This reflects the amount owed by debtors throughout the year, and accounts for any large increases or decreases.

$$\textbf{Average debtors} = \frac{\textbf{Debtors at start + Debtors at end}}{\textbf{2}}$$

STUDY TIP

When entering these figures in your calculator, press = before dividing by 2, or your answer will be incorrect.

EXAMPLE

Fulton Furniture has provided the following information relating to its debtors for the year ended 30 June 2016:

Credit sales	$200 000
Debtors balance – 1 July 2015	35 000
Debtors balance – 30 June 2016	45 000
Credit terms offered to customers	**60 days**

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The Debtors Turnover would be calculated as is shown in Figure 14.7.

Figure 14.7 ***Calculating Debtors Turnover***

$$\textbf{DTO} = \frac{40\,000 \times 365}{200\,000}$$

$$= \textbf{73 days}$$

where average debtors is calculated as:

$$\textbf{Ave. Debtors} = \frac{35\,000 + 45\,000}{2}$$

$$= \textbf{40 000}$$

The Debtors Turnover indicates that in the year ended 30 June 2016, it took an average of 73 days to collect cash from debtors.

Assessing Debtors Turnover

After determining the Debtors Turnover, we must assess its adequacy by comparing it against some sort of benchmark or standard. Debtors Turnover can be assessed against the Debtors Turnover from a *previous period* to identify increases or decreases, but it is the *credit terms offered to customers* that should be used to determine whether or not Debtors Turnover is satisfactory.

In this example, customers were offered **60 days** credit, so a Debtors Turnover of 73 days indicates poor debtor management. If debtors are taking 13 days longer than allowed to repay their debts, the business is being forced to wait longer to collect its cash, which may place a strain on its ability to meet its other debts.

Because it is an average, the Debtors Turnover could conceal the fact that some debtors took much more than 73 days to pay (because some took less than 73 days), so it must be read in conjunction with the Debtors records to identify which debtors are overdue. However, it does identify that there is a problem with the firm's debtor management techniques.

Strategies for managing debtors

Chapter 12 discussed the role of Stock Turnover in measuring the average number of days it takes for a business to sell its stock. This is seen as crucial to its liquidity – its ability to meet its short-term debts as they fall due – as trading firms rely on selling stock to generate cash. But what if a significant proportion of those sales are made on credit? The business will have to wait not only until the stock is sold, but also wait again until the cash is collected from its debtors (as measured by Debtors Turnover) until it has cash to pay its creditors, wages and other expenses. Conversely, fast Debtors Turnover will mean cash is collected quickly, and can then be used to meet debts as they fall due. This means the firm's ability to manage its debtors effectively is crucial to its liquidity.

In order to avoid – or address – poor collections from debtors (and a slow Debtors Turnover), the owner may consider:

- *Offering discounts for quick settlement* to encourage debtors to pay not only on time, but even early.
- *Issuing invoices promptly* once a sale is made so that the customer is immediately aware of the amount owing and the repayment date.
- *Conducting extensive credit checks* and then only offering credit to customers who have a proven record of repaying on time.

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- *Sending reminder notices* when debtors have amounts overdue, progressing from friendly reminders (such as a copy of the invoice) to threats of legal action.
- *Threatening legal action* to recover overdue amounts. (The amount to be recovered would have to be more than the legal costs involved.)
- *Employing a debt collection agency.*
- *Withdrawing credit facilities* until the amount outstanding is received.

REVIEW QUESTIONS 14.5

1. **Explain** how Debtors records can be used to aid debtor management.
2. **State** what is measured by Debtors Turnover (DTO).
3. **Show** the formula to calculate Debtors Turnover.
4. **Explain** the importance of credit terms offered to customers in assessing Debtors Turnover.
5. **Explain** why Debtors records and Debtors Turnover should both be used to assess the management of debtors.
6. **Explain** why debtor management is vital to ensuring adequate liquidity.
7. **List** the strategies a business could use to improve its Debtors Turnover, in the order in which they should be implemented.

14.6 MANAGING CREDITORS

The main benefit of purchasing stock using credit is that it gives the business time to sell the stock and collect the cash from the customer before payment for the stock must be made. However, it is still important that creditors are paid on time. **Creditors Turnover (CTO)** measures the average number of days taken to pay creditors.

Creditors Turnover (CTO) an efficiency indicator which measures the average number of days it takes for a business to pay its creditors

Creditors Turnover formula

$$\textbf{Creditors Turnover (CTO)} = \frac{\textbf{Average creditors} \times \textbf{365}}{\textbf{Credit purchases}}$$

Like Debtors Turnover, Creditors Turnover uses average creditors to account for changes over the year.

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EXAMPLE

Fulton Furniture has provided the following information relating to its creditors for the year ended 30 June 2016:

Credit purchases	$182 500
Creditors balance – 1 July 2015	23 000
Creditors balance – 30 June 2016	17 000
Credit terms offered by suppliers	**45 days**

The Creditors Turnover would be calculated as is shown in Figure 14.8.

Figure 14.8 ***Calculating Creditors Turnover***

$$\textbf{CTO} = \frac{20\,000 \times 365}{182\,500}$$

$$= \textbf{40 days}$$

where average creditors is calculated as:

$$\textbf{Average Creditors} = \frac{23\,000 + 17\,000}{2}$$

$$= \textbf{20 000}$$

The Creditors Turnover indicates that in the year ended 30 June 2016, it took an average of 40 days to pay creditors – five days before the credit terms required payment.

Assessing Creditors Turnover

Like Debtors Turnover, the credit terms offered by suppliers is the main determinant of whether Creditors Turnover is satisfactory or not. Paying creditors early may be beneficial if discounts are involved, but generally a business should try to pay its creditors as close to the credit terms as is possible, without exceeding them. This will allow the business to retain its cash longer and use it to meet other payments as they fall due.

However, exceeding the credit terms can lead to a variety of consequences, such as:

- a loss of any possible discount for early repayment
- interest charges on late accounts
- a refusal of credit facilities by the supplier
- a reduction in the firm's credit rating (which may jeopardise future borrowing).

Stock Turnover, Debtors Turnover and Creditors Turnover

The firm's ability to pay its creditors will rely heavily on its ability to generate cash from its stock. This means Creditors Turnover is reliant on Stock Turnover and (if the business deals mainly on credit) Debtors Turnover. If stock is sold and cash collected from customers quickly, then creditors can be paid on time. If not, debts may become overdue, and a whole variety of liquidity problems may result.

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REVIEW QUESTIONS 14.6

1 **State** what is measured by Creditors Turnover (CTO).
2 **Show** the formula to calculate Creditors Turnover.
3 **State** three negative consequences of exceeding the credit terms offered by suppliers.
4 **Explain** the relationship between Stock and Debtors Turnover, and Creditors Turnover.

WHERE HAVE WE BEEN?

- Credit sales is reported as revenue in the Income Statement because it increases assets and Owner's Equity, but receipts from debtors is not revenue because it does not increase assets overall and there is no increase in Owner's Equity.
- Credit purchases are not reported in any of the reports, but the information is used to determine the balance owing to creditors.
- Payments to creditors is not reported as an expense because it will decrease both assets and liabilities with no effect on Owner's Equity.
- Accrual accounting determines profit by comparing the revenue earned in the current reporting period against the expenses incurred in the current reporting period.
- Debtors Turnover (DTO) measures the average number of days it takes to collect cash from debtors.
- Creditors Turnover (CTO) measures the average number of days taken to pay creditors.
- Creditors Turnover is reliant on Stock Turnover and Debtors Turnover.

EXERCISES

EXERCISE 14.1
REPORTING CREDIT TRANSACTIONS

WB page 221

Larkham Interiors sells office furniture, and has provided the following information about its activities for April 2016.

LARKHAM INTERIORS

Balance Sheet (unclassified) as at 1 April 2016

Assets	**$**	**Equities**	**$**
Debtors	1 600	Creditors	2 400
Stock	32 000	Bank Overdraft	1 000
Equipment	7 000	GST Payable	520
Premises	80 000	Capital – Larkham	116 680
Total Assets	**$120 600**	**Total Equities**	**$120 600**

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The transactions for April 2016 have been summarised in the journals below.

Cash Receipts Journal

Date	Details	Rec. No.	Bank	Debtors	Sales	Sundries	GST
April	Loan – nab					15 000	
	TOTALS		**30 500**	**5 600**	**9 000**	**15 000**	**900**

Cash Payments Journal

Date	Details	Chq. No.	Bank	Creditors	Drawings	Wages	Sundries	GST
April	Advertising						2 000	200
	Van						15 000	1 500
	Electricity						500	50
	Stationery						100	10
	TOTALS		**27 760**	**4 900**	**1 500**	**2 000**	**17 600**	**1 760**

Sales Journal

Date	Debtor	Inv. No.	Sales	GST	Total Debtors
April	**TOTAL**		**4 500**	**450**	**4 950**

Purchases Journal

Date	Creditor	Inv. No.	Stock	GST	Total Creditors
April	**TOTALS**		**5 000**	**500**	**5 500**

Additional information from the stock cards:

- Stock on hand as at 30 April 2016 $30 500
- Cost of Sales for April 2016 6 500
- Loan – nab is repayable in instalments of $5 000 per year.

Required

* **a** **Prepare** a Statement of Receipts and Payments for Larkham Interiors for April 2016.
* **b** **Prepare** an Income Statement for Larkham Interiors for April 2016.

c Referring to one Accounting Principle, **explain** why Credit sales is classified as revenue.

d **Calculate** the balance of Debtors and Creditors as at 30 April 2016.

e **Calculate** the GST balance as at 30 April 2016.

* **f** **Prepare** a Balance Sheet for Larkham Interiors as at 30 April 2016.

g Referring to your answer to part ‘f’, **explain** your treatment of GST.

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EXERCISE 14.2
REPORTING CREDIT TRANSACTIONS

WB page 224

Smith's Hardware has provided the following information about its activities for 2016.

SMITH'S HARDWARE

Balance Sheet (unclassified) as at 1 January 2016

Assets	$	Equities	$
Debtors	12 500	Creditors	16 500
Stock	21 000	Loan – ANZ	15 000
Bank	5 000	GST Payable	2 350
Delivery Van	15 000	Capital – Smith	27 650
Office Equipment	8 000		
Total Assets	**$61 500**	**Total Equities**	**$61 500**

The transactions for 2016 have been summarised in the journals below.

Cash Receipts Journal

Date	Details	Rec. No.	Bank	Debtors	Sales	Sundries	GST
2016	Capital					5 000	
	TOTALS		**92 600**	**32 600**	**50 000**	**5 000**	**5 000**

Cash Payments Journal

Date	Details	Chq. No.	Bank	Creditors	Drawings	Wages	Sundries	GST
2016	Advertising						2 000	200
	Loan – ANZ						3 000	
	Interest on Loan						1 000	
	Rent						9 000	900
	TOTALS		**94 100**	**19 000**	**35 000**	**24 000**	**15 000**	**1 100**

Sales Journal

Date	Debtor	Inv. No.	Sales	GST	Total Debtors
2016	**TOTAL**		**46 000**	**4 600**	**50 600**

Purchases Journal

Date	Creditor	Inv. No.	Stock	GST	Total Creditors
2016	**TOTALS**		**36 000**	**3 600**	**39 600**

Additional Information:

- Cost of Sales for 2016 was $34 000.
- As at 31 December 2016, the stock cards showed stock on hand worth $23 000.
- A stocktake on 31 December 2016 showed stock on hand of $22 500.
- The loan is repayable in instalments of $3 000 per year.

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Required

* **a** **Prepare** a Statement of Receipts and Payments for Smith's Hardware for 2016.
* **b** **Prepare** an Income Statement for Smith's Hardware for 2016.

c Referring to one Qualitative Characteristic, **explain** why receipts from debtors is not reported in the Income Statement.

d **Explain** two reasons why Smith's Hardware suffered a cash deficit despite earning a profit for 2016.

e **Calculate** the balance of Debtors and Creditors as at 31 December 2016.

f **Calculate** the GST balance as at 31 December 2016.

* **g** **Prepare** a Balance Sheet for Smith's Hardware as at 31 December 2016.

EXERCISE 14.3
REPORTING CREDIT TRANSACTIONS

WB page 227

Cozy Imij sells home decorations and furnishings, and has provided the following information about its activities for August 2016.

COZY IMIJ

Balance Sheet (unclassified) as at 1 August 2016

Assets	**$**	**Equities**	**$**
Debtors	18 400	Bank	2 000
Stock	12 600	Creditors	700
Shop Fittings	5 000	GST Payable	390
		Loan – nab	9 000
		Capital – Baird	23 910
Total Assets	**$36 000**	**Total Equities**	**$36 000**

COZY IMIJ

Statement of Receipts and Payments for August 2016

	$	**$**
Cash Receipts		
Cash Sales	5 000	
Receipts from Debtors	4 400	
Capital Contribution	3 000	
GST Received	500	12 900
Less Cash Payments		
Payments to Creditors	2 500	
Drawings	1 400	
Wages	1 950	
GST Paid	160	
Computer Equipment	1 600	
Interest on Loan	150	
GST Settlement	390	8 150
Cash Surplus (Deficit)		**4 750**
Add Bank Balance at Start (1 August 2016)		**(2 000)**
Bank Balance at End (31 August 2016)		**2 750**

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Additional information:

• Credit sales for August 2016	$4 200	plus	$420 GST
• Credit purchases for August 2016	8 700	plus	$870 GST
• Cost of Sales for August 2016	7 700		
• Stock balance as per stock cards as at 31 August 2016	13 600		
• Physical stocktake as at 31 August 2016	13 800		

- The loan is repayable in instalments of $500 per month.

Required

* **a** **Prepare** an Income Statement for Cozy Imij for August 2016.

b **Explain** why payments to creditors is not reported as an expense in the Income Statement.

c **Explain** two reasons why Cozy Imij made a net loss yet generated a cash surplus for August 2016.

d **Calculate** the balance of Debtors, Creditors and the GST as at 31 August 2016.

* **e** **Prepare** a Balance Sheet for Cozy Imij as at 31 August 2016.

f Referring to your answer to part 'e', **explain** your treatment of GST.

EXERCISE 14.4
MANAGING DEBTORS

WB page 230

Wainwright HiFi sells all of its stock on credit. The following information relates to the year ended 30 September 2016.

Credit sales	$155 000	plus $15 500 GST
Debtors (1 October 2015)	16 700	
Debtors (30 September 2016)	17 300	
Credit terms offered to customers	5/10, n/30 days	
Stock Turnover	17 days	
Stock Turnover (Industry average)	20 days	
Credit terms offered by suppliers	45 days	

Required

a **Calculate** Debtors Turnover (days) for Wainright HiFi for the year ended 30 September 2016.

b Referring to your answer to part 'a', **state** whether the Debtors Turnover is satisfactory. **Justify** your answer.

c **Suggest** two strategies the owner could implement to improve the firm's Debtors Turnover.

d **Explain** why this business may have difficulty in meeting the terms offered by its suppliers.

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EXERCISE 14.5
MANAGING DEBTORS

page 231

Bendigo Bikes has provided the following information regarding its activities for the year ended 31 May 2016.

BENDIGO BIKES

Income Statement for the year ended 31 May 2016

	Cash sales	990 000	
	Credit sales	10 000	1 000 000
Less	Cost of Goods Sold		750 000
	Gross Profit		**250 000**
Less	Other Expenses		150 000
	Net Profit		**$100 000**

Additional Information:

- Average debtors for the year ended 31 May 2016 was $2 000.
- Credit sales are made on terms of 2/7, n/60, but due to concerns over the Debtors Turnover, the owner has decided to make credit more difficult to obtain.
- All stock is purchased on credit terms of 60 days.

Required

a **Calculate** Debtors Turnover (days) for the year ended 31 May 2016.

b Referring to your answer to part 'a', **state** whether the Debtors Turnover is satisfactory. **Justify** your answer.

c **Explain** the likely effect on Debtors Turnover of the owner's decision to make credit more difficult to obtain.

d **Explain** why the firm's Debtors Turnover will not have a significant effect on its ability to meet its short-term debts.

e **Explain** how the Debtors records could be used to improve the management of debtors.

EXERCISE 14.6
MANAGING CREDITORS

page 232

Pennington Prints purchases all of its stock on credit. The following information relates to the year ended 30 November 2016.

Credit purchases	$71 900	plus $7190 GST
Creditors (1 December 2015)	13 600	
Creditors (30 November 2016)	12 400	
Credit terms offered by suppliers	60 days	
Stock Turnover (year ended 30 November 2015)	24 days	
Stock Turnover (year ended 30 November 2016)	30 days	
Debtors Turnover (year ended 30 November 2015)	31 days	
Debtors Turnover (year ended 30 November 2016)	38 days	

Required

a **Explain** why this business should not have difficulty in meeting the terms offered by its suppliers.

b **Calculate** Creditors Turnover (days) for Pennington Prints for the year ended 30 November 2016.

c Referring to your answer to part 'a', **state** whether the Creditors Turnover is satisfactory. **Justify** your answer.

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d **State** two possible consequences of exceeding the terms offered by the supplier.

e Referring to the information provided, **identify** two reasons why the Creditors Turnover increased in the year ended 30 November 2016.

EXERCISE 14.7

MANAGING CREDITORS

page 233

Mildura Fashions has provided the following information relating to the year ended 31 March 2016

Credit purchases	$ 91 250	plus	$9 125 GST
Average creditors	12 000		
Credit terms offered by suppliers	7/10, n/45 days		

Required

a **Calculate** Creditors Turnover (days) for the year ended 31 March 2016.

b Referring to your answer to part 'a', **state** whether the Creditors Turnover is satisfactory. **Justify** your answer.

c **State** one positive consequence of exceeding the credit terms offered by suppliers.

d **Explain** how exceeding the credit terms offered by suppliers may have a negative effect on Net Profit.

EXERCISE 14.8

REPORTING CREDIT TRANSACTIONS

page 234

Hattie Madding is the owner and operator of Madding Hatters, a hat retailer. Stock is purchased on credit. Credit sales are offered to sporting clubs, but some cash sales are also made over the counter. Hattie has provided the following information regarding the firm's activities for July 2016.

MADDING HATTERS

Assets and Equities as at 1 July 2016

Assets	**$**	**Equities**	**$**
Bank	1 500	Creditors	35 000
Debtors	41 000	Loan – QuickFin	28 000
Stock of Hats	9 000	GST Payable	500
Office Equipment	14 000	Capital – Madding	22 000
Shop Fittings	20 000		
Total Assets	**$85 500**	**Total Equities**	**$85 500**

Cash Receipts Journal

Date	Details	Rec. No.	Bank	Debtors	Sales	Sundries	GST
July	**TOTALS**		**54 400**	**32 400**	**20 000**	**nil**	**2 000**

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Cash Payments Journal

Date	Details	Ch. No.	Bank	Creditors	Drawings	Wages	Sundries	GST
July	Protective Spray						6 200	620
	Rent						3 000	300
	Interest on Loan						300	
	Delivery to Customers						2 000	200
	TOTALS		**57 920**	**26 500**	**7 800**	**11 000**	**11 500**	**1 120**

Sales Journal

Date	Debtor	Inv. No.	Sales	GST	Total Debtors
July	**TOTAL**		**46 000**	**4 600**	**50 600**

Additional Information:

- Cost of Sales $ 28 000
- Debtors as at 31 July 2016 59 200
- Creditors as at 31 July 2016 40 400
- Stock on hand as at 31 July 2016 (Stock cards) 10 000
- Stock on hand as at 31 July 2016 (Stocktake) 9 800
- All stock is treated with a special protective spray before it is offered for sale to customers.
- The Loan – QuickFin is repayable at $4 000 p.a.

Required

a **Calculate** the Bank balance of Madding Hatters as at 31 July 2016.

* b **Prepare** an Income Statement for Madding Hatters for July 2016.

c **Explain**, giving two examples from the information provided, how Madding Hatters generated a Net Profit despite suffering a cash deficit for July 2016.

d **Calculate** the GST balance as at 31 July 2016.

* e **Prepare** a Balance Sheet for Madding Hatters as at 31 July 2016.

f **Explain** why most business will end up with GST payable at the end of the period.

EXERCISE 14.9
REPORTING CREDIT TRANSACTIONS

WB page 236

Josh Houston runs a paint shop called Painter's Choice. All stock is purchased on credit, but sales are made on both cash and credit terms. Josh has provided the following information regarding the firm's activities for June 2016.

PAINTER'S CHOICE

Assets and Equities as at 1 June 2016

Assets	$	Equities	$
Debtors	3 500	Bank	2 000
Stock of Paint	29 500	Creditors	3 000
GST Receivable	200	Loan – ANZ	12 000
Shop Fittings	13 500	Capital – Houston	29 700
Total Assets	**$46 700**	**Total Equities**	**$46 700**

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PAINTER'S CHOICE

Statement of Receipts and Payments for June 2016

	$	**$**
Cash Receipts		
Cash Sales	2 000	
Receipts from Debtors	10 390	
Capital Contribution	5 000	
GST Received	200	17 590
Less Cash Payments		
Payments to Creditors	7 700	
Drawings	3 400	
Wages	1 750	
GST Paid	70	
Freight In	200	
Interest	100	
Rent	500	13 720
Cash Surplus (Deficit)		**3 870**
Bank Balance at Start (1 June 2016)		**(2 000)**
Bank Balance at End (30 June 2016)		**1 870**

Additional Information:

• Credit sales	$ 8 900	plus $890 GST
• Cost of Sales	8 500	
• Stock on hand as at 30 June 2016 (stock cards)	30 390	
• Stock on hand as at 30 June 2016 (stocktake)	30 200	

Required

a **Suggest** one possible reason to explain how this firm generated GST receivable as at 1 June 2016.

* b **Prepare** an Income Statement for Painter's Choice for June 2016.

c **Explain**, giving two examples from the information provided, how Painter's Choice generated a cash surplus despite suffering a Net Loss for June 2016.

d **Calculate** the balance of Debtors as at 30 June 2016.

e Referring to your answer to part 'd', **state** one method Josh could use to check the accuracy of this calculation.

f **State** two strategies that Josh could implement to encourage late debtors to pay.

* g **Prepare** an extract of the Balance Sheet to show the Current assets of Painter's Choice as at 30 June 2016.

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Where are we headed?

After completing this chapter, you should be able to:

- **explain** how the Reporting Period principle and Qualitative Characteristic of *Relevance* affect the calculation of profit
- **define** the term 'balance day adjustment'
- **explain** the purpose of balance day adjustments
- **define** depreciation, and other related terms
- **calculate** depreciation expense using the straight-line method
- **make** balance day adjustments for prepaid and accrued expenses and depreciation expense
- **state** the effect of balance day adjustments on the accounting equation
- **report** prepaid and accrued expenses and accumulated depreciation in the Balance Sheet.

CHAPTER 15

BALANCE DAY ADJUSTMENTS – EXPENSES

KEY TERMS

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

- accrual accounting
- balance day adjustment
- prepaid expense
- accrued expense
- finite life
- depreciable asset
- depreciation
- depreciation expense
- depreciable value
- accumulated depreciation
- carrying value.

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15.1 CALCULATING PROFIT

At its most basic, profit is calculated by deducting expenses from revenue, so it's probably a good idea to remember the definitions of revenues and expenses outlined in Chapter 1.

Revenue – an *inflow* (or saving in outflows) of economic benefits, in the form of an increase in assets (or reduction in liabilities), that leads to an *increase* in Owner's Equity.

Expense – an *outflow* or *consumption* (or reduction in inflows) of economic benefits, in the form of a decrease in assets (or increase in liabilities), that leads to a *decrease* in Owner's Equity.

We have already seen that the definition of revenue is much broader than just 'cash', and that a business does not have to receive cash in order to recognise revenue. For example, a Stock Gain is revenue in the form of increased stock (Chapter 13), and Credit Sales is revenue in the form of an increase in debtors (Chapter 14). This means that revenue should be recognised when the economic benefit, not the cash, is received. That is, when the revenue is earned.

Similarly, it is not necessary for cash to be paid to recognise an expense. Stock Loss and Cost of Sales are but two expenses that are recognised when stock, not cash, decreases. The important requirement here is that an outflow or consumption of an economic benefit has occurred, so expenses should be recognised when the economic benefit is consumed or incurred.

Thus, when we speak of determining profit, we are actually comparing the revenue earned in the current reporting period against the expenses incurred in the current reporting period. This is the essence of **accrual accounting**.

Accrual accounting
determining profit by recognising revenues as earned when the good/service is provided, and expenses as incurred when the benefit is consumed

The need for balance day adjustments

Up to this point we have assumed that the figures we recorded in the journals already showed the amounts earned and incurred in the current reporting period. However, this will not always be the case. For example, at balance day, the final day of the reporting period when the reports are prepared, there may be electricity that has been incurred but has *not yet been paid*, or rent that was *paid in advance* and has now been consumed. These amounts that have been incurred will *not* appear in the journals, so any profit calculation based on the journals will be inaccurate.

In each of these situations, a **balance day adjustment** (BDA) is necessary to change (or adjust) the figures so that profit can be calculated accurately, using all revenues earned, and all expenses incurred in the current reporting period. The purpose of a balance day adjustment is thus:

Balance day adjustment
a change made to a revenue or expense on balance day to show revenues earned and expenses incurred in a particular reporting period

to ensure that profit can be calculated accurately, by comparing revenues earned against expenses incurred in the current reporting period.

Balance day adjustments apply the Reporting Period principle to ensure *Relevance* in the accounting reports. That is, by adjusting the figures so that they show revenue earned and expenses incurred in the current reporting period, we are ensuring that the Income Statement (and for that matter, the Balance Sheet) includes all information which is useful for decision making, while excluding information which is not (such as revenue or expenses which were earned or incurred outside the current period).

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Types of balance day adjustments

The balance day adjustments to be covered in this unit refer mainly to expenses (with stock gain being the obvious exception), and include:

- stock losses and gains (covered in Chapter 13)
- prepaid expenses
- accrued expenses
- depreciation expense.

These balance day adjustments must be made *before* the reports are prepared.

REVIEW QUESTIONS 15.1

1. **Explain** what is meant by 'accrual accounting'.
2. **Explain** the purpose of balance day adjustments.
3. **Explain** how balance day adjustments ensure *Relevance* in the accounting reports.
4. **List** the four balance day adjustments that relate to expenses.

15.2 PREPAID EXPENSES

Frequently, a business will make payments for expenses that are not consumed at the time the payment is made. For example, rent is usually paid in advance, covering the next month, six months or even the forthcoming year. At the time the payment is made, how should items like these be recorded?

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The definition of an expense actually refers to a *consumption* or *outflow* of economic benefits. Yet at the time the rent (or insurance, advertising, rates etc) is paid, none has been consumed. In fact, it will not be consumed until some time in the future, so it is not a *consumption* of an economic benefit, but rather a *future* economic benefit. In other words, at the time the rent is paid, it is actually for the puchase of an asset.

Recording expenses paid in advance

Prepaid expense an expense that has been paid but is yet to be consumed

When an expense is paid in advance, it should properly be recorded as a current asset called a **prepaid expense** (in this case, Prepaid Rent Expense), and recorded as such in the Cash Payments Journal.

EXAMPLE

On 1 May 2016, Nelson Fridges paid $900 (plus $90 GST) for rent for the next six months (Ch. 128).

This payment would be recorded in the Cash Payments Journal as is shown in Figure 15.1.

Figure 15.1 ***Cash Payments Journal: Prepaid expense***

Cash Payments Journal

Date	Details	Ch. No.	Bank	Creditors	Drawings	Wages	Sundries	GST
May 1	Prepaid Rent Expense	128	990				900	90

STUDY TIP

Don't be fooled by the inclusion of the word 'expense' – the word 'Prepaid' overrules this, meaning the item is an asset.

Of the **$990** paid, $90 was GST but the remaining **$900**, the amount relating to the rent itself, is a current asset called **Prepaid Rent Expense**.

Effect on the accounting equation

As a result of the payment for prepaid rent:

	Increase/Decrease/No effect	Amount $
Assets	Decrease (**decrease Bank $990, increase Prepaid Rent Expense $900**)	90
Liabilities	Decrease (GST payable)	90
Owner's Equity	No effect	

At this point there is *no expense recorded*: the entire **$900** is recorded as a current asset. (And according to the definitions, it *cannot* be recorded as an expense, as it does not decrease Owner's Equity.)

Adjusting for the consumption of a prepaid expense

Prepaid expenses are recorded as current assets because at the time of payment, none of the amount has been incurred/consumed – it is all a *future* economic benefit. However, by the time balance day arrives at least part of this prepaid expense is likely to have been consumed or incurred. In other words, part of the asset has become an expense.

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It is therefore necessary to adjust the figures so that:

- the amount incurred (consumed or 'used up') is shown as an expense
- only the amount remaining ('unused') is shown as a current asset.

In our example, six months' rent was paid in advance on 1 May 2016. By 30 June 2016 (2 months later), how much of the **$900** has been incurred/consumed? Figure 15.2 shows this calculation.

Figure 15.2 ***Calculating expense incurred: prepaid expense***

$$\frac{\$900 \text{ Prepaid Rent Expense}}{6 \text{ months}}$$

= $150 per month × 2 months incurred (May and June)

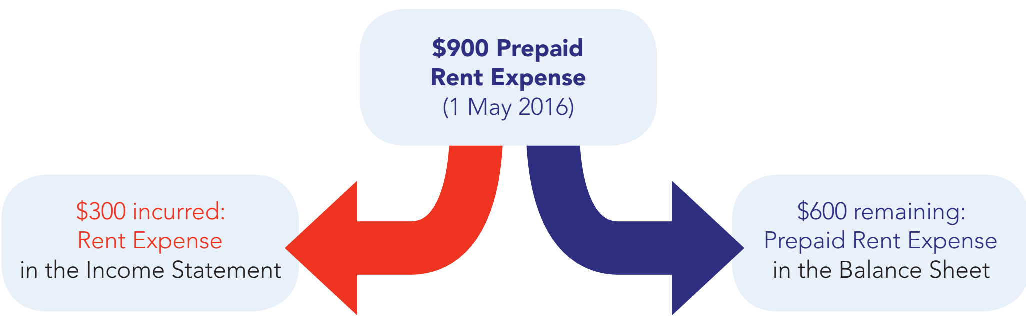
= $300 Rent Expense

By balance day the business will have had use of the premises for two months, and so incurred Rent Expense of $300. The remaining $600 (four months) that has not yet been consumed represents a future economic benefit that will be consumed in the next 12 months, and so should be reported as a current asset – Prepaid Rent Expense. That is:

	Prepaid Rent Expense (1 May 2016)	**$ 900**	
Less	Rent Expense	300	Income Statement
	Prepaid Rent Expense (30 June 2016)	$ 600	Balance Sheet (current asset)

Figure 15.3 represents this, another way.

Figure 15.3 ***Effect on reports: prepaid expense consumed***



STUDY TIP

When a prepaid expense is consumed, take away the amount consumed from the amount prepaid.

Effect on the accounting equation

If no adjustment was made, then Prepaid Rent Expense would be reported in the Balance Sheet as a current asset worth $900, and no rent expense would be reported in the Income Statement. However, as a result of the adjustment for rent expense incurred:

	Increase/Decrease/No effect	Amount $
Assets	Decrease (Prepaid Rent Expense)	300
Liabilities	No effect	
Owner's Equity	Decrease (increase Rent Expense decreases Net Profit)	300

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This adjustment does not change Bank, nor does it affect the GST payable; it changes the calculation of profit, and the amount of the prepaid expense reported in the Balance Sheet. In this case, both Prepaid Rent Expense and Net Profit decrease by $300, so assets and Owner's Equity decrease by the amount that has been incurred in the current reporting period.

REVIEW QUESTIONS 15.2

1. **Define** the term 'prepaid expense'.
2. **Explain** why a prepaid expense is classified as a current asset.
3. **State** the effect on the accounting equation of a payment for a prepaid expense.
4. Referring to one Accounting Principle, **explain** which part of a prepaid expense should be reported as:
   - an expense
   - a current asset.
5. **State** the effect on the accounting equation of the balance day adjustment for the consumption of a prepaid expense.

15.3 ACCRUED EXPENSES

Whereas prepaid expenses are paid *before they are incurred/consumed*, some expenses will be *incurred before they are paid*. For example, wages may be owing to employees for work that has already been done, or interest may be owing for the use of borrowed funds. In cases such as these, the extra amount that has been incurred – in the language of the definition, consumed – in the current reporting period must be added to the amount paid to determine the total expense incurred. In addition, because the extra amount is still owing, it should also be recorded as a current liability. The amount owing for an expense that has already been consumed is called an **accrued expense**.

Accrued expense
an expense that has been incurred but not yet paid

Adjusting for an accrued expense

Prior to making any balance day adjustments, the journals will only show the amounts *paid* for expenses.

EXAMPLE

During November 2016, Johns Forklifts paid **$23 000** wages, but as at 30 November 2016 a further $4 000 wages was owing to employees.

The **$23 000** actually **paid** for wages during November 2016 would be recorded in the Cash Payments Journal, but the $4 000 accrued wages would not be recorded, as it is still owing to employees: it has not yet been paid. It is therefore necessary to adjust the figures so that:

- the extra amount incurred (consumed) is added to the expense **paid**
- the amount accrued (unpaid) is shown as a current liability.

In the example, **$23 000** was paid but $4 000 wages was still owing to employees. Therefore, the total wages expense incurred would be calculated as shown in Figure 15.4.

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STUDY TIP

When an expense is accrued, add on the amount owing.

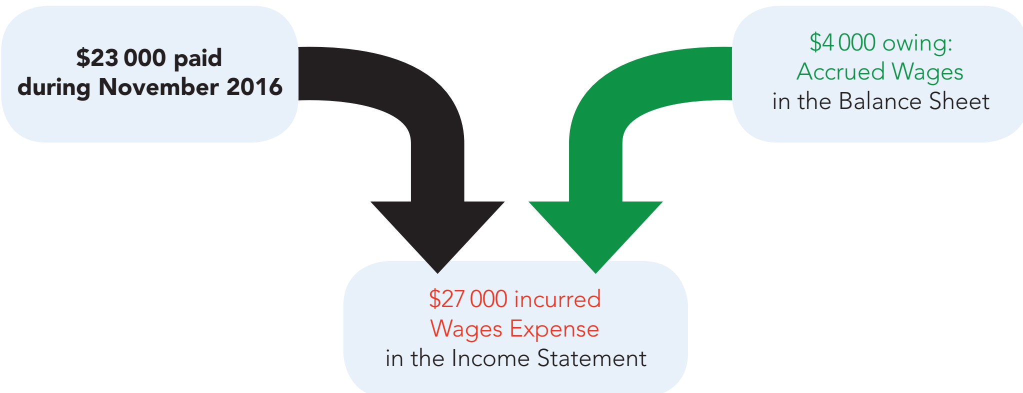
Figure 15.4 ***Calculating expense incurred: accrued expense***

	Wages paid	**(November 2016)**	**$ 23 000**
+	Accrued Wages	(30 November 2016)	**4 000**
	Wages Expense	(November 2016)	$27 000

By balance day the business will have incurred both the **$23 000** it has paid for, as well as the $4 000 it still owes to its employees, a total Wages Expense of $27 000. The $4 000 that has not yet been paid represents a present obligation that must be settled in the next 12 months, and so should be reported as a current liability – Accrued Wages.

This could be represented as is shown in Figure 15.5.

Figure 15.5 ***Effect on reports: accrued expense***



Effect on the accounting equation

If the adjustment is *not* made, wages expense will be reported as **$23 000**, and the $4 000 wages owing will not be reported at all. However, as a result of the adjustment for accrued wages:

	Increase/Decrease/No effect	Amount $
Assets	No effect	
Liabilities	Increase (Accrued Wages)	4 000
Owner's Equity	Decrease (increase Wages Expense decreases Net Profit)	4 000

Net Profit (and therefore Owner's Equity) decreases, but accrued expenses (and therefore total liabilities) increases by the amount still owing. Note that the amount used in the adjustment ($4 000) is *not* the total expense for the period; it is simply the amount that is owing. It is *added* to the amount paid to calculate the total expense incurred of $27 000.

REVIEW QUESTIONS 15.3

1. **Define** the term 'accrued expense'.
2. **Explain** why an accrued expense is classified as a current liability.
3. **State** the effect on the accounting equation of the balance day adjustment for an accrued expense.
4. Referring to one Accounting Principle, **explain** why accrued expenses must be added on to the amount paid to determine the total expense figure.

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15.4 DEPRECIATION OF NON-CURRENT ASSETS

Depreciable non-current assets

Items such as vehicles, Office Equipment and shop fittings will provide a *future 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 like these will last for more than 12 months does not mean they will last forever – almost all will have a **finite life**, meaning they will be useful for a fixed period of time, but at some point in the future will be no longer able to earn revenue. Assets that have a finite life are known as **depreciable assets**. (This would include the vast majority of non-current assets on the Balance Sheet of a typical business, such as vehicles, shop fittings, Office Equipment and furniture.)

Finite life
the limited period of time (usually measured in years) for which a non-current asset will exist

Depreciable asset
a non-current asset which has a finite life, and thus must be depreciated over that life

Why do depreciable assets have a finite life? Put simply, as they age, they wear out, and as their life expires, so too does their ability to earn revenue; in effect, they are *consumed* over time. Every year, *part* of the value of the asset is consumed, until – at the end of its life – it is no longer able to earn revenue. The value of the non-current asset that is consumed in each reporting period is reported as the depreciation expense.

Depreciation

Depreciation
the allocation of the cost of a non-current asset over its useful life.

Although the term **depreciation** is frequently used to describe the expense, it actually refers to the *process* – the accounting procedure – that creates depreciation expense. In terms of the process, depreciation is the allocation of the cost of a non-current asset over its useful life.

Because a non-current asset is not consumed entirely within one reporting period, depreciation is an attempt to calculate how much of the asset's value has been consumed in the *current* reporting period. 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.

Depreciation expense
that part of the cost of a non-current asset which has been consumed in the current reporting period.

As a result of this process, **depreciation expense** is created, representing that part of the cost of a non-current asset that has been consumed in the current reporting period.

By recognising as an expense only that part of the cost of a non-current asset that is consumed/incurred in the *current* reporting period, depreciation (which is a balance day adjustment) ensures that profit will be calculated accurately, and that *Relevance* is upheld because the reports will include all information that is useful for decision making.

(Depreciation does not involve any payment of cash. The cash payment relating to each non-current asset will be recorded only at the time when the asset is purchased. Depreciation affects only the Income Statement and the Balance Sheet.)

EXAMPLE

On 1 July 2015 Mickleson Books paid $16 000 (plus $1 600 GST) for new shelving which is expected to last for four years.

How should this shelving be reported?

At purchase date – **1 July 2015** – the shelving is clearly a non-current asset: none has been consumed, so the entire $16 000 is a *future economic benefit* (in terms of the books it can display), and that benefit will be provided for *more than 12 months* (four years).

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But how should the shelving be reported as at **30 June 2016**? Because the business still has the shelving, it would be inaccurate to report the entire $16 000 as an expense for the year as it has not been consumed. Indeed, the shelving still has three years of life left and so should still be reported as a non-current asset.

However, the shelving will not last forever, and by **30 June 2016** one year of its life has been consumed. Given the shelving is expected to last for four years, in one year the business will have consumed $^1/_4$ of its life, and therefore $^1/_4$ of its value. Thus, of the $16 000 of future economic benefit, $4 000 ($^1/_4$ of $16 000) has been consumed and should be reported as depreciation expense. The remaining $12 000 remains a future economic benefit and should be reported as a non-current asset.

STUDY TIP

Depreciation does not mean there is less shelving; it means the same shelving is worth less to the business because some of its value has been consumed.

REVIEW QUESTIONS 15.4

1 **Explain** why the entire cost of a non-current asset should not be reported as an expense in one reporting period.
2 **Define** the following terms:
- finite life
- depreciable asset
- depreciation
- depreciation expense.

3 Referring to one Accounting Principle, **explain** the purpose of depreciating a non-current asset.
4 **Explain** the effect of depreciation on a firm's bank balance.

15.5 STRAIGHT-LINE DEPRECIATION

Although there are a number of different methods for depreciating a non-current asset, this course concentrates on only one – the *straight-line method of depreciation*. This method of calculating depreciation assumes that non-current assets *contribute evenly to revenue*. As a result, it assumes that the value of a non-current asset is *consumed evenly over its life*, and that the depreciation expense will be the same every year. (If this depreciation expense was plotted on a graph, the line would be a straight-line, giving the method its name.)

Calculating depreciation expense: Straight-line formula

$$\textbf{Depreciation expense (\$ per annum)} = \frac{\textbf{HC less RV}}{\textbf{Life}}$$

Where:

HC = Historical cost:	the original purchase price of the non-current asset
RV = Residual Value:	the estimated value of the non-current asset at the end of its useful life
Life = Useful Life:	the estimated period of time for which the non-current asset will be used (by the current entity) to earn revenue. (This is usually measured in years)

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The basic premise is to divide the cost of the asset by the number of years for which it is used, thus determining how much of that cost is consumed per year. (Because each non-current depreciable asset is different in terms of its useful life and residual value, each must be depreciated individually.)

EXAMPLE

On 1 July 2015, Dells Luggage purchased shop fittings for $8 000 (plus GST). The fittings will be kept for five years, at which time they are estimated to have a residual value of $500.

$$\textbf{Depreciation expense} = \frac{\text{HC less RV}}{\text{Life}}$$

$$= \frac{\$8\ 000 - 500}{5 \text{ years}}$$

$$= \frac{\$7\ 500}{5}$$

$$= \$1\ 500 \text{ per annum}$$

The top line of the formula shows that of the $8 000 paid for the shop fittings, $500 of its value will remain unused at the end of its useful life: this amount will not be consumed by Dells Lugagge, but rather by the next owner. As a result, the **depreciable value** of the shop fittings – the amount that will be consumed by Dells Luggage – is only **$7 500**. (If the asset has no value at all at the end of its useful life its residual value will be zero.)

However, this **$7500** will not be consumed in one year, but over *five* years. Thus, the depreciation process calculates that Dells Luggage will consume $1 500 worth of the shop fittings' value each year. This amount would be reported as **depreciation expense** in the Income Statement, and would also decrease the value at which the shop fittings are valued in the Balance Sheet.

Depreciable value
the total value of the asset that will be consumed by the current entity, and so must be allocated over its useful life

Depreciable expense
the value of a non-current asset which has been consumed in the current reporting period

REVIEW QUESTIONS 15.5

1 **Explain** the assumption that underlies the straight-line method of depreciation in relation to how assets contribute to revenue.
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 (rather than as a total).
5 Referring to one Accounting Principle, **explain** why Residual Value is deducted from Historical Cost when calculating depreciation using the straight-line method.

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15.6 REPORTING DEPRECIATION

Income Statement

Only the amount consumed in the current reporting period is reported in the Income Statement as depreciation expense. In the example, the Income Statement of Dells Luggage for the year ended 30 June 2016 would report the $1 500 which has been consumed as Depreciation of Shop Fittings under the heading 'Other Expenses' (see Figure 15.12 on page 310 for an illustration).

STUDY TIP

Depreciation is reported along with all the 'Other Expenses' such as Wages, Advertising and Rent.

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, which in turn decreases Owner's Equity.

At the same time, depreciation also decreases the value at which the asset is valued in the Balance Sheet. After all, the non-current asset is a *future economic benefit*, but by depreciating the asset we are recognising that some of this benefit has now been consumed. This reduction in the value of an asset is reported as a new item called **accumulated depreciation**, which is a negative asset.

Accumulated depreciation the value of a non-current asset that has been consumed over its life so far

Whereas depreciation expense refers to the amount consumed in the current reporting period (and is reported in the Income Statement), accumulated depreciation refers to depreciation that has accumulated (or built up) *over the life of the asset so far* (and is reported in the Balance Sheet). That is, accumulated depreciation will grow every year as the depreciation expense for each reporting period is added to it.

Figure 15.6 shows how the shop fittings would be reported in the Balance Sheet.

Figure 15.6 ***Balance Sheet: Accumulated depreciation***

DELLS LUGGAGE

Balance Sheet (extract) as at 30 June 2016

Non-Current Assets	$	$
Shop Fittings	1 8 000	
Less Accumulated Depreciation	2 1 500	3 6 500

Instead of just reporting the asset as one figure, *three* are now involved:

1 Historical cost $8 000

To ensure the reports remain as *free from bias* (and therefore as *Reliable*) as possible, the asset must always be reported at its Historical Cost – its original purchase price – as this amount is verifiable by reference to the source document.

2 Accumulated Depreciation $1 500

Accumulated Depreciation represents the total value of the asset that has been consumed over its life so far. This negative asset must be reported in the Balance Sheet to show that some of the asset's value has been consumed.

3 Carrying Value $6 500

The **carrying value** is calculated by deducting any accumulated depreciation from the Historical Cost of the asset. It represents the value of the asset that is *yet to be consumed* – and thus yet to be allocated as depreciation expense – plus any residual value. Once the asset is depreciated the Historical Cost of the asset is less useful for decision-making than the carrying value: the carrying value is thus a more *Relevant* valuation to report in the Balance Sheet.

Carrying value the value of a non-current asset that is yet to be consumed/ allocated as an expense, plus any residual value

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STUDY TIP

Carrying value is also known as carrying cost, written down value, unallocated cost and book value.

Effect on the accounting equation

Depreciation thus has the following effect on the accounting equation:

	Increase/Decrease/No effect	**Amount $**
Assets	Decrease (increase Accumulated Depreciation)	1 500
Liabilities	No effect	
Owner's Equity	Decrease (Depreciation expense decreases Net Profit)	1 500

Like all balance day adjustments, depreciation does not involve any payment of cash, and only affects the Income Statement and the Balance Sheet.

Successive periods

Although depreciation expense will be the same amount each year ($1 500 in this example) accumulated depreciation will increase every year as the depreciation expense for each reporting period is added to it.

The shop fittings owned by Dells Luggage (which will be depreciated at $1 500 per year for every year of their life) would appear in successive Balance Sheets as is shown in Figure 15.7.

Figure 15.7 ***Successive Balance Sheets: Accumulated depreciation***

DELLS LUGGAGE

Balance Sheet (extract) as at 30 June:

Non-Current Assets	**2016**	**2017**	**2018**	**2019**
Shop Fittings	8 000	8 000	8 000	8 000
Less Accumulated Depreciation	1 500	3 000	4 500	6 000
	6 500	5 000	3 500	2 000

STUDY TIP

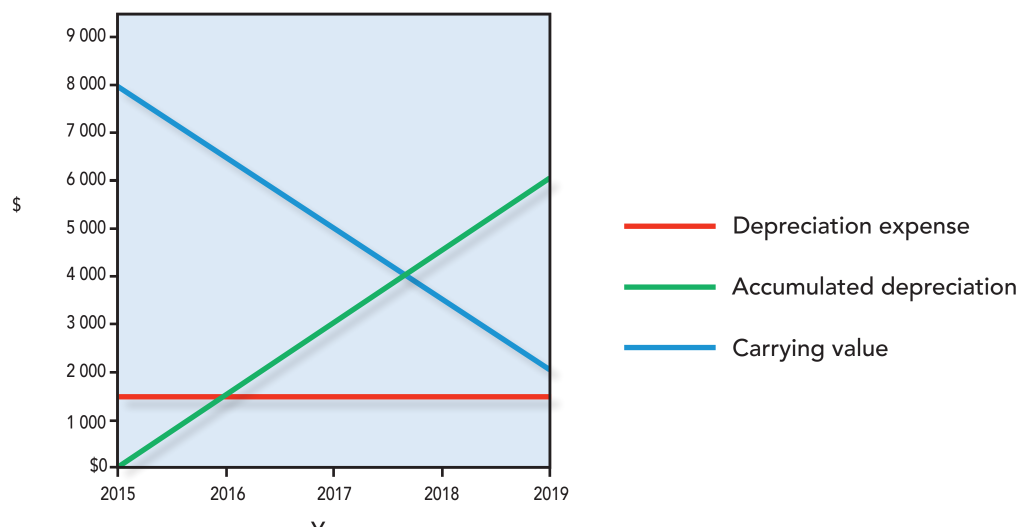
As accumulated depreciation increases, the carrying value decreases.

Representing depreciation graphically

In order to satisfy *Understandability*, reports must be prepared in a manner which is readily understandable by the user, with the preparation of graphs one simple strategy which 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.

For example, Figure 15.8 shows how the depreciation expense, accumulated depreciation, and carrying value could be represented graphically.

Figure 15.8 ***Graphing depreciation***



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This graph clearly shows why it is called the 'straight-line' method, as the amount of depreciation expense is constant every year ($1 500), creating a straight-line across the life of the asset.

The accumulated depreciation starts at zero and grows at a constant rate (increased by the depreciation expense). At the same time, the carrying value starts at the Historical Cost and moves in exactly the opposite direction, decreasing every year (by the amount of the deprecation expense), ending at the Residual Value (if the graph shows the asset's entire useful life).

REVIEW QUESTIONS 15.6

1 **Explain** how depreciation is reported in the Income Statement.
2 **Define** the term 'accumulated depreciation'.
3 Referring to one Accounting Principle, **explain** the difference between depreciation expense and accumulated depreciation.
4 Referring to one Accounting Principle, **explain** why the original purchase price of a non-current asset must be disclosed in the Balance Sheet.
5 **Define** the term 'carrying value'.
6 Referring to one Qualitative Characteristic, **explain** why non-current assets must be reported at their carrying value in the Balance Sheet.
7 **State** the effect of depreciation on the accounting equation.
8 Referring to one Qualitative Characteristic, **explain** why it may be useful to represent depreciation graphically.

15.7 DEPRECIATION – CALCULATION ISSUES

Rate of depreciation

The formula used earlier calculates the *amount* of depreciation expense, expressed in dollar terms, but depreciation can also be expressed as a *rate* – a percentage of the cost.

Depreciation rate: formula

$$\textbf{Depreciation rate (\% per annum)} = \frac{\textbf{Depreciation Expense}}{\textbf{Historical Cost}} \times \mathbf{100}$$

The figures from the earlier example were:

Historical Cost	=	$8 000
Residual Value	=	$ 500
Useful Life	=	5 years
Depreciation Expense	=	$1 500 per year

The rate of depreciation would thus be calculated as is shown in Figure 15.9.

Figure 15.9 ***Rate of depreciation***

$$\begin{aligned}\textbf{Depreciation rate (\% per annum)} &= \frac{\text{Depreciation Expense}}{\text{Historical Cost}} \times 100 \\ &= \frac{\$1\,500}{\$8\,000} \times 100 \\ &= 18.75\%\text{ per annum}\end{aligned}$$

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This means 18.75% of the asset's cost will be consumed for each of the five years of its life. (This will leave 6.25% unconsumed as residual value.)

EXAMPLE

On 1 July 2015 Jiggles Clothing purchased a delivery vehicle for $25 300 (including GST). The vehicle is to be depreciated at 12% per annum. Balance day is 30 June 2016.

If the rate is known, the depreciation expense (in dollar terms) can be calculated by simply multiplying the rate by the Historical Cost as is shown in Figure 15.10.

Figure 15.10 ***Calculating depreciation expense: rate***

Depreciation Expense ($ per annum)	=	Depreciation rate × Historical Cost
	=	12% × $23 000
	=	$2 760 per annum

STUDY TIP

Note when the asset is purchased to calculate how many months worth of depreciation should be reported.

Depreciation for less than a year

Because the life of the asset is usually measured in years, the formula will calculate depreciation expense *per annum*. However, if at the time the reports are prepared 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 ($^1/_{12}$ of a year) should be charged as an expense.

Referring to the example above, if Jiggles Clothing had purchased the vehicle on 1 **February** 2016 (rather than 1 **July** 2015), then by balance day – 30 June 2016 – it would have been under business control for only five months (February to June inclusive), so only five months worth of depreciation should be charged as an expense for the year ending 30 June 2016. This is shown in Figure 15.11.

STUDY TIP

Rather than multiply by fractions like $^1/_4$ or $^1/_2$, it is safer to multiply by the number of months out of 12, e.g. $^3/_{12}$ or $^6/_{12}$.

Figure 15.11 ***Calculating depreciation: less than a year***

Depreciation Expense	=	$2 760 per annum × $^5/_{12}$
	=	$1 150

Thus the depreciation expense for the five months from purchase until balance day is $1 150, and only this amount should be reported in the Income Statement for the year ending 30 June 2016. The following year, the firm will have had control of the vehicle for the full 12 months, and so for the year ending 30 June 2017 should report depreciation expense as $2 760.

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Estimates

One of the key issues in calculating depreciation is estimating the asset's residual value and useful life; without these estimates, depreciation cannot be calculated. However, because the residual value and useful life are *estimates*, using them in the calculation of depreciation means that the reports will not be free from bias, and to some extent this will undermine the *Reliability* of the accounting reports.

The obvious question then arises: why depreciate non-current assets if we are undermining a key Qualitative Characteristic? The answer lies in a different Qualitative Characteristic: *Relevance*. Depreciation ensures that the Income Statement includes all information that is useful for decision-making (about profit) by showing the consumption of non-current assets in the current reporting period. Similarly, by showing accumulated depreciation in the Balance Sheet, it ensures that assets are shown at their carrying value, which is more useful for decision-making about their replacement. In this sense, *Relevance* overrides *Reliability* so that the accounting reports fulfil their function of providing useful financial information.

STUDY TIP

Although the depreciation figure *may* be inaccurate, not reporting any depreciation at all is *certain* to be inaccurate.

REVIEW QUESTIONS 15.7

1. **Show** the formula for calculating the rate of depreciation.
2. Referring to one Accounting Principle, **explain** why it is not always accurate to report depreciation expense per annum.
3. **Explain** the process for calculating depreciation when the firm has had control of the asset for less than a year.
4. **Explain** how depreciation can undermine the *Reliability* of accounting reports.
5. **Explain** how depreciation ensures *Relevance* in the accounting reports.

15.8 COMPREHENSIVE EXAMPLE

To summarise how balance day adjustments are reported, consider the following example.

EXAMPLE

Kingsmill Music has provided the following information relating to its trading activities for March 2016:

Cash sales	$ 63 000	
Cost of Sales	28 000	
Wages paid	14 000	
Advertising paid	800	(plus GST)
Rent paid	7 920	(including GST)

Additional information:

- 6 months rent was paid in advance on 1 March 2016
- Accrued wages as at 31 March 2016 was $700
- Depreciation of Van for March 2016 was $150
- The van was purchased for $28 000, and as at 28 February 2016, accumulated depreciation on the van amounted to $7 000.

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The Income Statement for Kingsmill Music is shown in Figure 15.12.

Figure 15.12 ***Income Statement: balance day adjustments***

KINGSMILL MUSIC

Income Statement for March 2016

Revenue	**$**	**$**
Sales		63 000
Less Cost of Goods Sold		
Cost of Sales		28 000
Gross Profit		**35 000**
Less Other Expenses		
Wages Expense	14 700	
Advertising	800	
Rent Expense	1 200	
Depreciation of Van	150	18 150
Net Profit		**16 850**

STUDY TIP

The expense must be titled 'Depreciation of Van' rather than just Depreciation, because it is likely that more than one non-current asset will be depreciated.

The Balance Sheet for Kingsmill Music as at 31 March 2016 is shown in Figure 15.13.

Figure 15.13 ***Balance Sheet: balance day adjustments***

KINGSMILL MUSIC

Balance Sheet as at 31 March 2016

Current Assets	**$**	**$**	**Current Liabilities**	**$**	**$**
Bank	* 1 200		Creditors	* 15 400	
Stock	* 60 500		GST Payable	* 1 300	
Debtors	* 14 300		Accrued Wages	700	
Prepaid Rent Expense	6 000	82 000	Loan – Qs Finance	* 9 000	26 400
Non-Current Assets			**Non-Current Liabilities**		
Van	28 000		Loan – Qs Finance		* 21 000
Less Accum. Depreciation	7 150	20 850			
			Owner's Equity		
			Capital – Kingsmill	* 42 600	
			+ Net Profit	**16 850**	
				59 450	
			Less Drawings	* 4 000	55 450
Total Assets		**102 850**	**Total Equities**		**102 850**

* Additional figures have been made up to create a realistic Balance Sheet.

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WHERE HAVE WE BEEN?

- Balance day adjustments are necessary so that an accurate profit is calculated by comparing revenue earned in the current reporting period and expenses incurred in the current reporting period.
- Balance day adjustments may be necessary for:
  - stock losses and gains (covered in Chapter 13)
  - prepaid expenses
  - accrued expenses
  - depreciation expense.
- Each balance day adjustment for expenses increases the expense, thus decreasing profit and owner's equity.
- Balance day adjustments have no effect on cash, but will change Net Profit and the items in the Balance Sheet.
- Without balance day adjustments, the reports will not include all information which is useful for decision-making (*Relevance*).

EXERCISES

EXERCISE 15.1
PREPAID EXPENSE

WB page 239

On 16 July 2016, Milton Shoes paid $400 (plus $40 GST) for cleaning materials (Chq. 331). By 31 July 2016, $320 worth of cleaning materials had been consumed.

Required

a **Record** Cheque 331 in the Cash Payments Journal of Milton Shoes.

b **State** the amount of cleaning materials expense that would be reported in the Income Statement for Milton Shoes for July 2016. **Justify** your answer.

c **Show** how the unused cleaning materials would be reported in the Balance Sheet of Milton Shoes as at 31 July 2016.

d **State** the effect of the adjustment for cleaning materials expense on the accounting equation of Milton Shoes.

EXERCISE 15.2
PREPAID EXPENSE

WB page 240

On 1 April 2016, Glendale Golf Gear paid $4 800 (plus $480 GST) to cover insurance for the next 12 months (Chq. 163). The business prepares its financial reports on 30 June each year.

Required

a **Explain** how the insurance would be reported in the Balance Sheet of Glendale Golf Gear as at 1 April 2016.

b Referring to one Accounting Principle, **explain** why some of the insurance should be reported as an expense for the year ending 30 June 2016.

c **Calculate** insurance expense for the year ending 30 June 2016.

d **Show** how Prepaid Insurance would appear in the Balance Sheet of Glendale Golf Gear as at 30 June 2016.

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EXERCISE 15.3
PREPAID EXPENSE

WB page 241

On 11 May 2016, Ridewell Motorcycles paid $132 including GST for stationery (Chq. 220). On 31 May 2016, only $35 worth of the stationery was still on hand.

Required

- **a** **Record** the purchase of stationery in the Cash Payments Journal of Ridewell Motorcycles.
- **b** **Calculate** stationery expense for May 2016.
- **c** **Show** how the stationery would be reported in the Balance Sheet of Ridewell Motorcycles as at 31 May 2016.
- **d** **State** the effect on the accounting equation of Ridewell Motorcycles if the adjustment for stationery expense was **not** made.
- **e** **Explain** the difference between an expense and an asset.

EXERCISE 15.4
PREPAID EXPENSE

WB page 242

See Dee's music shop has presented the following extract from its Balance Sheet as at 31 December 2015.

Current Assets: Prepaid Rent Expense $1 800

The yearly rent was paid in advance on 1 October 2015. The business prepares reports monthly, and the next balance day occurs on 31 January 2016.

Required

- **a** Referring to one Qualitative Characteristic, **explain** why balance day adjustments are necessary.
- **b** **Calculate** rent expense for January 2016.
- **c** **Explain** the effect of the adjustment for rent expense on the accounting equation of See Dee's.
- **d** **Show** how Prepaid Rent would be reported in the Balance Sheet of See Dee's as at 29 February 2016.

EXERCISE 15.5
PREPAID EXPENSE

WB page 243

On 18 August 2016, Keyboards @ Kyneton paid $3 300 (including GST) for advertising on Channel 31 (Ch. 65). The advertising campaign will run for four months, beginning in September 2016.

Required

- **a** **Explain** how the amount paid for advertising would be reported in the Balance Sheet of Keyboards @ Kyneton as at 31 August 2016.
- **b** **Calculate** advertising expense for September 2016.
- **c** **Explain** the effect on Net Profit for September 2016 if the adjustment for advertising expense was **not** made.
- **d** **Show** how Prepaid Advertising would be reported in the Balance Sheet of Keyboards @ Kyneton as at 31 October 2016.

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EXERCISE 15.6
ACCRUED EXPENSE

WB page 244

During April 2016, Wilco Farm Gear paid $1 200 (plus $120 GST) for electricity, but as at 30 April 2016 a further $600 had been incurred but not yet paid.

Required

- **a** **Calculate** electricity expense for April 2016.
- **b** Referring to one Accounting Principle, **explain** why the electricity owing should be included in the electricity expense for April 2016.
- **c** **State** the effect of the adjustment for electricity owing on the accounting equation of Wilco Farm Gear.
- **d** **Show** how the electricity owing would be reported in the Balance Sheet for Wilco Farm Gear as at 30 April 2016.

EXERCISE 15.7
ACCRUED EXPENSE

WB page 245

During November 2016, Hair Today employed two sales assistants, each of whom earns $600 for a six-day week. During November 2016, Hair Today paid wages of $2 400, but by balance day – 30 November 2016 – two days' wages were still owing to each assistant.

Required

- **a** **Calculate** wages owing as at 30 November 2016.
- **b** Referring to one Qualitative Characteristic, **explain** why the wages owing must be reported in the Balance Sheet for Hair Today as at 30 November 2016.
- **c** **Calculate** wages expense for November 2016.
- **d** **Explain** the effect of the adjustment for wages owing on the Net Profit of Hair Today for November 2016.

EXERCISE 15.8
ACCRUED EXPENSE

WB page 246

On 1 February 2016, Wilson Desks borrowed $30 000 to purchase a new delivery van. The interest-only loan charges interest at 6% p.a., with payments due at the end of April, July, October and January each year.

Required

- **a** **Calculate** interest expense for the year ending 30 June 2016.
- **b** **Calculate** interest paid for the year ending 30 June 2016.
- **c** Referring to your answers to parts 'a' and 'b', **explain** why there is a difference between interest expense and interest paid.
- **d** **State** the effect on Net Profit if the adjustment for interest owing was **not** made.
- **e** **Show** how Accrued Interest Expense would be reported in the Balance Sheet of Wilson Desks as at 30 June 2016.

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EXERCISE 15.9
ACCRUED EXPENSE

WB page 247

During March 2016, The Sporting Republic on High paid $3 190 (including GST) for advertising, but actually incurred an advertising expense of $3 400.

Required

- a **Calculate** accrued advertising as at 31 March 2016.
- b **Explain** how Accrued Advertising would be reported in the Balance Sheet of The Sporting Republic on High as at 31 March 2016.
- c **State** the effect on the accounting equation of The Sporting Republic on High if the balance day adjustment for advertising owing had **not** been recorded.

EXERCISE 15.10
DEPRECIATION

WB page 248

On 1 July 2015, Restoration Doors purchased a new photocopier for $6 000 (plus $600 GST). It is expected that the photocopier will have a useful life of four years, and will be disposed of at this time for $300.

Required

- a **Define** the term 'depreciation'.
- b **Calculate** depreciation of photocopier for the year ending 30 June 2016.
- c **Explain** why residual value is deducted from the historical cost when calculating depreciation.
- d **Explain** the effect of depreciation of photocopier on the Net Profit of Restoration Doors for the year ending 30 June 2016.

EXERCISE 15.11
DEPRECIATION

WB page 249

On 1 January 2016 Aroma World purchased office furniture for $12 000 (plus GST). The office furniture has an estimated useful life of 10 years, with a residual value of $1 000.

Required

- a Referring to one Accounting Principle, **explain** why it is necessary to depreciate non-current assets.
- b **Calculate** depreciation of office furniture for 2016.
- c **Show** how Office Furniture would be reported in the Balance Sheet of Aroma World as at 31 December 2016.
- d **Explain** the effect of depreciation of office furniture on the Balance Sheet of Aroma World as at 31 December 2016.

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EXERCISE 15.12
DEPRECIATION RATE

WB page 250

On 1 July 2015, Finnigan's Wave Boards purchased new polishing equipment, paying $17 600 cash (including GST). The equipment is expected to last for 5 years, at which time it will have a residual value of $1 000.

Required

a **Calculate** depreciation of equipment for the year ending 30 June 2016.
b **Calculate** the rate of depreciation applied to the equipment.
c **Show** how Equipment would appear in the Balance Sheet of Finnigan's Wave Boards as at 30 June 2016, 2017 and 2018.
d Referring to one Qualitative Characteristic, **explain** why the equipment must be shown in the Balance Sheet at is carrying value.

EXERCISE 15.13
DEPRECIATION – LESS THAN 12 MONTHS

WB page 252

On 1 October 2015, Lukin Motors purchased a new computer for $2 400 (plus GST). The computer will be depreciated at a rate of 15% per annum.

Required

a **Calculate** depreciation of computer for the year ending 30 June 2016.
b **State** the effect on the accounting equation of Lukin Motors as at 30 June 2016 if the adjustment for depreciation was **not** made.
c **Show** how the Computer would appear in the Balance Sheet of Lukin Motors as at 30 June 2016, 2017 and 2018.

EXERCISE 15.14
DEPRECIATION – LESS THAN 12 MONTHS

WB page 253

Wangaratta Watches has provided the following extract from its Balance Sheet as at 1 July 2015.

WANGARATTA WATCHES

Balance Sheet (extract) as at 1 July 2015

Non-Current Assets	**$**	**$**
Display Cases	32 000	
less Accumulated Depreciation	8 000	24 000

Additional information:

- A new display case was purchased on 30 November 2015 for $3 600 (plus $360 GST).
- Display cases are depreciated at 10% per annum using the straight-line method.

Required

a **Calculate** depreciation of display cases for the year ending 30 June 2016.
b **Show** how Display Cases would appear in the Balance Sheet of Wangaratta Watches as at 30 June 2016.
c **Explain** the effect on the Balance Sheet of Wangaratta Watches as at 30 June 2016 if the balance day adjustment for depreciation had **not** been made.

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EXERCISE 15.15

REPORTING BALANCE DAY ADJUSTMENTS

WB page 254

Wayne's Fountains sells fountains and other garden ornaments. Its assets and equities as at 1 October 2016 were as follows.

WAYNE'S FOUNTAINS

Assets and Equities as at 1 October 2016

Assets	**$**	**$**	**Equities**		**$**
Stock		127 000	Bank Overdraft		2 800
Debtors		4 900	Creditors		64 000
Premises	265 000		GST Payable		2 700
less Accum. Depreciation	120 000	145 000	Capital – Wayne		207 400
Total Assets		**276 900**	**Total Equities**		**276 900**

The business has provided the following information for the year ending 30 September 2016.

Sales Journal

Date	Debtor	Invoice number	Sales	GST	Total Debtors
	TOTALS		18 000	1 800	19 800

Purchases Journal

Date	Creditor	Invoice number	Stock	GST	Total Creditors
	TOTALS		16 000	1 600	17 600

Cash Receipts Journal

Date	Details	Rec. No.	Bank	Debtors	Sales	Sundries	GST
Sept.	Loan – FIX Finance					20 000	
	TOTALS		97 100	21 000	51 000	20 000	5 100

Cash Payments Journal

Date	Details	Chq. No.	Bank	Creditors	Drawings	Wages	Sundries	GST
	Electricity						6 000	
	Advertising						4 000	
	Prepaid Insurance						2 400	
	GST Clearing						2 700	
	TOTALS		88 940	14 100	26 000	32 500	15 100	1 240

Additional information:

- The 12-month insurance policy was taken out on 1 February 2016.
- The premises are depreciated at a rate of 5% p.a.
- As at 30 September 2016, $300 worth of electricity remained unpaid.
- Due to effective stock management techniques, both the stock cards and the stocktake as at 30 September 2016 showed $124 000 stock on hand.

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- Cost of Sales for the year was $19 000.
- The principal of the Loan – FIX Finance is due to be repaid in monthly instalments of $500.
- Balances as at 30 September 2016:

Debtors	$ 3 700
Creditors	67 500
GST Payable	4 060

Required

a Referring to one Accounting Principle, **explain** the purpose of making balance day adjustments.

b **Calculate** the following expenses for the year ending 30 September 2016:
- Electricity expense
- Insurance expense
- Depreciation of premises.

* **c** **Prepare** an Income Statement for Wayne's Fountains for the year ending 30 September 2016.

d **State** four reasons why Wayne's Fountains was able to generate a Cash Surplus despite incurring a Net Loss for the year ending 30 September 2016.

e **Calculate** the Bank balance as at 30 September 2016.

* **f** **Prepare** a classified Balance Sheet for Wayne's Fountains as at 30 September 2016.

EXERCISE 15.16
REPORTING BALANCE DAY ADJUSTMENTS

WB page 257

That Bike Shop sells bikes and riding gear, and has provided the following information relating to its trading activities for June 2016.

THAT BIKE SHOP

Assets and equities as at 31 May 2016

Assets	**$**	**$**	**Equities**	**$**
Bank		1 650	Creditors	18 650
Stock		69 700	GST Payable	1 900
Debtors		35 100	Loan – GH Bank	27 000
Prepaid Rent Expense		5 400	Capital – Melven	97 200
Shop Fittings	50 000			
Less Accum. Depreciation	17 100	32 900		
Total Assets		**144 750**	**Total Equities**	**144 750**

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THAT BIKE SHOP

Statement of Receipts and Payments for June 2016

	$	$
Cash Receipts		
Cash Sales	8 000	
Receipts from Debtors	36 000	
Capital Contribution	1 000	
GST Received	800	45 800
Less Cash Payments		
Payments to Creditors	20 000	
Drawings	6 200	
Wages	18 600	
Loan Principal	1 500	
Interest	100	
Advertising	800	
GST Paid	80	47 280
Cash Surplus (Deficit)		**(1 480)**
Add Bank Balance at Start (1 June 2016)		**1 650**
Bank Balance at End (30 June 2016)		**170**

Additional information:

- The credit journals for June 2016 showed:
  Credit sales $40 000 plus GST
  Credit purchases 15 000 plus GST
- The stock cards for June 2016 showed:
  Cost of Sales $18 000
  Stock on hand as at 30 June 2016 66 500
- A stocktake on 30 June 2016 revealed a stock loss of $200.
- Yearly rent was paid on 1 March 2016.
- As at 30 June 2016, $470 wages was owing to employees.
- Shop Fittings are depreciated at 12% p.a.
- The principal of the Loan – GH Bank is repayable at $3 000 per annum.
- As at 30 June 2016, the balance of debtors was $43 100.

Required

a **Explain** how balance day adjustments ensure *Relevance* in the financial reports.
b **Calculate** the following expenses for June 2016:
- Rent Expense
- Wages Expense
- Depreciation of Shop Fittings.

* c **Prepare** an Income Statement for That Bike Shop for June 2016.
d **Explain** two reasons why That Bike Shop was able to earn a profit despite suffering a cash deficit in June 2016.
e **Calculate** Creditors balance as at 30 June 2016.
f **Calculate** the GST balance as at 30 June 2016.
* g **Prepare** a classified Balance Sheet for That Bike Shop as at 30 June 2016.

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EXERCISE 15.17

REPORTING BALANCE DAY ADJUSTMENTS

WB page 260

Bronwyn Devitt is the owner/operator of Between the Lines, a small bookshop in Hillside. Reports are prepared quarterly, with the next balance day on 31 March 2016.

BETWEEN THE LINES

Assets and Equities as at 31 December 2015

Assets	**$**	**$**	**Equities**		**$**
Bank		2 400	Creditors		9 000
Stock		32 000	GST Payable		1 500
Debtors		5 000	Loan – ANZ		28 000
Prepaid Rent Expense		700	Capital – Devitt		35 200
Shelving	48 000				
Less Accum. Depreciation	14 400	33 600			
Total Assets		**73 700**	**Total Equities**		**73 700**

BETWEEN THE LINES

Statement of Receipts and Payments for the quarter ending 31 March 2016

	$	**$**
Cash Receipts		
Cash Sales	42 000	
Receipts from Debtors	14 000	
GST Received	4 200	60 200
Less Cash Payments		
Payments to Creditors	31 500	
Drawings	3 900	
Wages	18 000	
Freight In	250	
Loan Principal	1 200	
Interest	280	
Prepaid Advertising	3 000	
GST Paid	325	58 455
Cash Surplus (Deficit)		**1 745**
Add Bank Balance at Start (1 January 2016)		**2 400**
Bank Balance at End (31 March 2016)		**4 145**

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Additional information:

- The Purchases Journal showed credit purchases of $30 000 plus $3 000 GST, but the Sales Journal is missing.
- The stock cards for the quarter ending 31 March 2016 showed:

Cost of Sales	$ 40 000
Drawings of stock	300
Stock on hand as at 31 March 2016	21 700

- A stocktake on 31 March 2016 revealed stock on hand of $21 410.
- Wages expense for the quarter ending 31 March 2016 was calculated to be $18 700.
- Yearly rent was last paid on 1 April 2015.
- Depreciation of shelving is charged at 15% p.a. on cost.
- On 25 January 2016 the business signed a contract for three months' worth of newspaper advertising. The cash was paid to the newspaper on 12 February 2016 with the advertisements first appearing in March 2016.
- The principal of the Loan – ANZ is repayable at $400 per month.
- Selected balances as at 31 March 2016:

Creditors	$ 16 000
Debtors	7 500
GST Payable	3 875

Required

a **Calculate** the following expenses for the quarter ending 31 March 2016:
- Depreciation of shelving
- Advertising expense.

b Referring to one Accounting Principle, **explain** why only some of the amount paid for advertising is reported as an expense for the quarter ending 31 March 2016.

c **Calculate** credit sales for the quarter ending 31 March 2016.

* **d** **Prepare** an Income Statement for Between the Lines for the quarter ending 31 March 2016.

e **Explain** two reasons why Between the Lines was able to generate a Cash Surplus despite suffering a Net Loss for the quarter ending 31 March 2016.

f **Calculate** accrued wages as at 31 March 2016.

* **g** **Prepare** a Balance Sheet for Between the Lines as at 31 March 2016.

h Referring to your answer to part 'g', **explain** your classification of Accrued Wages.

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Where are we headed?
After completing this chapter, you should be able to:

- **explain** the need to report for cash
- **define** and **identify** Operating, Financing and Investing Cash Flow
- **prepare** a Cash Flow Statement
- **explain** the uses of a Cash Flow Statement
- **distinguish** between cash and profit.

CHAPTER 16

THE CASH FLOW STATEMENT

KEY TERMS

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

- Cash Flow Statement
- Operating activities
- Investing activities
- Financing activities.

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16.1 THE NEED TO REPORT FOR CASH

Earning profit is the primary reason for being in business, so owners must have accurate information about revenues and expenses if they are to improve the trading performance of their firm. However, it is cash – not profit – that pays the bills. Many small business owners make the mistake of assuming that cash and profit are the same thing and that if the business is generating a profit then they will automatically have cash available to pay business debts. Unfortunately, this is not the case; cash and profit are different measures of performance, and there are many possible reasons why a business that is earning a profit can experience a shortage of cash.

The Statement of Receipts and Payments

So far, we have reported the effect of cash transactions by preparing a Statement of Receipts and Payments. Its purpose is to detail cash received and cash paid during the period, and then identify the change in the firm's bank balance. A typical Statement of Receipts and Payments would look like the one shown in Figure 16.1.

The information presented in this report is generated in the Cash Receipts Journal and Cash Payments Journal, which together summarise all the cash transactions that have occurred in a reporting period. By listing the sources of cash (Cash Receipts) and uses of that cash (Cash Payments), this report allows the owner to identify whether the firm's cash balance has increased or decreased, and the main reasons why this has occurred.

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Figure 16.1 ***Statement of Receipts and Payments***

SERGIO'S SURF BOARDS

Statement of Receipts and Payments for 2016

	$	**$**
Cash Receipts		
Cash Sales	52 500	
Receipts from Debtors	33 000	
Loan – Colonial Bank	20 000	
Sale of Delivery Van	4 000	
Capital Contribution	6 000	
GST Received	5 250	120 750
Less Cash Payments		
Payments to Creditors	53 600	
Wages	24 400	
Drawings	18 000	
GST Paid	1 990	
Advertising	2 600	
Prepaid Insurance	1 800	
Display Racks	6 000	
Interest Expense	1 200	
Loan – Colonial Bank	4 000	
Office Furniture	9 500	123 090
Cash Surplus (Deficit)		**(2 340)**
Bank Balance at Start (1 January 2016)		**4 300**
Bank Balance at End (31 December 2016)		**1 960**

REVIEW QUESTIONS 16.1

1 **Explain** the basic function of all accounting reports.
2 **Explain** why it is important to report on both cash and profit.
3 **Explain** the function of the Statement of Receipts and Payments.

16.2 THE CASH FLOW STATEMENT

Although the Statement of Receipts and Payments can assist the owner in managing cash, 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. For this reason, the owner may wish to prepare a **Cash Flow Statement** to report on cash inflows (cash received) and cash outflows (cash paid), separately identifying cash flows relating to Operating activities, Investing activities, and Financing activities.

Cash Flow Statement an accounting report that reports all cash flows during a reporting period, classified as Operating, Investing and Financing activities.

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Operating activities

Operating activities
cash flows related to day-to-day trading activities

Operating activities refers to all cash flows related to day-to-day trading activities. Operating inflows will include cash sales, receipts from debtors, GST received from customers (for cash sales this period), GST refund, and any other cash revenues such as commission or interest received. Operating outflows will include all payments related to expenses (including interest), payments to creditors, GST paid (to suppliers and to the ATO for GST settlement – see later in this chapter), any prepaid expenses, and any payments for expenses incurred in previous periods (such as accrued wages).

Note: there are **no** credit transactions in a Cash Flow Statement; it deals only with items that involve a *cash flow*. Thus instead of credit sales, receipts from debtors is reported as an Operating cash inflow, and instead of credit purchases, payments to creditors is reported as an Operating cash outflow.

Investing activities

Investing activities
cash flows related to the purchase and sale of non-current assets

Investing activities are cash flows relating to the purchase or sale of non-current assets. In practice this will mean there are only two possible Investing items: cash received from the sale of a non-current asset (Investing inflow) and cash purchase of a non-current asset (Investing outflow).

Financing activities

Financing activities
cash flows related to changes in the financial structure of the firm

Financing activities are cash flows that are the result of changes in a firm's financial structure. In essence, this will mean only cash transactions that change loans and Owner's Equity, such as receiving or repaying loan principal, or cash contributions or drawings by the owner.

Using the same information that was reported in the Statement of Receipts and Payments in Figure 16.1, the Cash Flow Statement for Sergio's Surf Boards is shown in Figure 16.2.

STUDY TIP

Interest is always Operating, as it is a payment for an expense

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Figure 16.2 ***Cash Flow Statement***

SERGIO'S SURF BOARDS

Cash Flow Statement for the year ended 31 December 2016

	$	$
CASH FLOW FROM OPERATING ACTIVITIES		
Cash Inflows		
Cash Sales	52 500	
Receipts from Debtors	33 000	
GST Received	5 250	90 750
Less Cash Outflows		
Payments to Creditors	53 600	
Wages	24 400	
GST Paid	1 990	
Advertising	2 600	
Prepaid Insurance	1 800	
Interest Expense	1 200	85 590
Net Cash Flows from Operations		**5 160**
CASH FLOW FROM INVESTING ACTIVITIES		
Cash Inflows		
Sale of Delivery Van		4 000
Less Cash Outflows		
Display Racks	6 000	
Office Furniture	9 500	15 500
Net Cash Flows from Investing Activities		**(11 500)**
CASH FLOW FROM FINANCING ACTIVITIES		
Cash Inflows		
Loan – Colonial Bank	20 000	
Capital Contribution	6 000	26 000
Less Cash Outflows		
Drawings	18 000	
Loan – Colonial Bank	4 000	22 000
Net Cash Flows from Financing Activities		**4 000**
Net Increase (Decrease) in Cash Position		**(2 340)**
Bank balance at start (1 January 2016)		**4 300**
Bank balance at end (31 December 2016)		**1 960**

STUDY TIP

Cost of sales, depreciation, and stock gain/loss are not cash items: they are not reported in a Cash Flow Statement.

Net Cash Flows

The Net decrease in cash position (of **$2 340**) is calculated by adding together the net cash flows from each activity: Net Cash Flows from Operations of $5 160 + Net Cash Flows from Investing Activities of ($11 500) + Net Cash Flows from Financing Activities of $4 000. It can also be calculated by deducting total payments (as shown in the Cash Payments Journal) from total receipts (as shown in the Cash Receipts Journal). Either way, the answer should be the same, and reflect the total or net change in the firm's bank balance from the start of the period to the end.

Note that the final figure in this statement – bank balance at end – is exactly the same as that generated in the Statement of Receipts and Payments: **$1 960**. After all, both

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STUDY TIP

When classifying cash flows, work from the bottom up. That is, identify Financing and Investing activities first, so the remainder must be Operating.

statements report the same items; the only difference is that the Cash Flow Statement classifies the cash flows as Operating, Investing and Financing activities.

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. The specific benefits of preparing a Cash Flow Statement are:

- *To aid decision-making about the firm's cash activities* by detailing the sources and uses of cash in a particular period.
- *To assess whether the business is meeting its cash targets* by comparing the Cash Flow Statement against budgeted (or expected) cash flows. This will highlight problems and allow for corrective action to be taken.
- *To assist in planning for future cash activities* by providing a basis for the next budgeted Cash Flow Statement, which will set targets for the future.
- *To identify whether the business is generating enough cash from its Operating activities* to fund its Investing and Financing activities.

This last point is particularly important: a firm which has negative Net Operating Cash Flows will be unable to meet its other payments without contributions from the owner or external finance. This indicates that the business is unable to pay its way, as it cannot rely on capital contributions and loans every period. If a business is unable to generate sufficient cash flow from its Operating activities to meet its financial obligations then its future as a Going Concern is in serious doubt.

REVIEW QUESTIONS 16.2

1. **Define** the following terms as they relate to the Cash Flow Statement, and provide one example of an inflow, and one example of an outflow:
   - Operating activities
   - Investing activities
   - Financing activities.
2. **Explain** how the preparation of a Cash Flow Statement can assist in decision-making.
3. **Explain** how the preparation of a Cash Flow Statement can assist in planning for the future.
4. **Explain** why it may be more beneficial to prepare a Cash Flow Statement rather than just a Statement of Receipts and Payments.

16.3 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. 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 cash (or bank balance) is calculated by comparing cash inflows and cash outflows in a reporting period, whereas profit is determined by comparing revenues earned and expenses incurred in a particular reporting period. As we have seen a number of times, these items are not necessarily the same:

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- some cash items do not affect profit
- some profit items do not affect cash and
- some items affect both cash and profit, but by differing amounts.

Cash items that do not affect profit

Some cash inflows are not revenues at all. Capital contributions, loans received and GST refunds will be reported in the Cash Flow Statement as they are cash inflows that increase Bank. However, they will not be reported in the Income Statement as they are not revenues and so have no effect on profit. Items such as these may explain why a firm has been able to generate a cash surplus (and increase its bank balance) even if it has incurred a net loss.

Similarly, *some cash outflows are not expenses.* Payments for cash drawings, loan repayments, cash purchases of non-current assets and GST settlements are reported in the Cash Flow Statement as they will decrease Bank, but they are not expenses and so will leave profit unchanged. This may help to explain why a firm has suffered a cash deficit despite earning a profit.

GST

Aside from a GST settlement or GST refund, the GST a business receives from its customers and pays to its suppliers will also affect its cash position, but not its profit.

If GST received from customers is greater than GST paid to suppliers, Bank will increase, and this may be one of the reasons why the business has *more* cash than profit.

If GST paid to suppliers is greater than GST received from customers Bank will decrease, and this may be one of the reasons why the business has *less* cash than profit.

Cash receipts that are not revenues	Cash payments that are not expenses
GST received	GST paid
GST refund	GST settlement
Capital contribution	Cash drawings
Loan received	Loan repayments
	Cash payments for non-current assets

STUDY TIP

When looking for reasons why cash and profit results are different, start with Investing or Financing activities in the Cash Flow Statement.

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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.

Firstly, *some revenues are not cash inflows*. Stock gain is a good example, as it increases profit, but represents a gain of *stock*, not *cash*, and so is not reported in the Cash Flow Statement. This may be one of the reasons why a firm can earn a profit, but still suffer a cash deficit.

Secondly, *some expenses are not cash outflows*, and as a result will decrease profit, but are omitted from the Cash Flow Statement, as they have no effect on Bank. Depreciation and Stock loss fall into this category. Expenses like these may explain why a firm can incur a loss, but earn a cash surplus.

Revenues that are not cash receipts	Expenses that are not cash payments
Stock gain	Depreciation
	Stock loss

Items that affect both cash and profit, but by differing amounts

We have so far considered items that affect one report but not the other; that is, they have a cash effect *or* a profit effect, but not both. But many items affect both cash *and* profit. Where the item affects both cash and profit, but by differing amounts, the firm's profit will not be the same as its cash performance.

Credit sales and receipts from debtors

Selling goods on credit will increase profit immediately, but may not involve a cash inflow until much later. Conversely, when the cash is received from the debtor it will increase Bank, but it is not revenue. Thus the different amounts reported as credit sales and receipts from debtors could explain why cash and profit are not the same. If credit sales is greater than receipts from debtors, the benefit in terms of profit will be greater than the benefit in cash. If credit sales is *less* than receipts from debtors, the firm may very well have less profit than cash.

Cost of Sales and payments to creditors

The way stock is paid for can also mean that cash and profit are not the same. Cost of Sales represents the value of stock *sold*, but this may not be the same as the amount that has been *paid* for that stock (as cash purchases or as payments to creditors). Remember, Cost of Sales represents a stock flow, not a cash flow. If Cost of Sales is *greater* than payments to creditors or cash purchases of stock, it will reduce profit more than it reduces bank. If Cost of Sales is *less* than payments to creditors/cash purchases of stock, it will mean a greater reduction in bank than in profit.

Expenses: amount paid versus amount incurred

Due to balance day adjustments, the amount *paid* for expenses can be different to the amount *incurred*. When expenses are paid in advance for next reporting period (like prepaid rent or prepaid insurance), the amount paid will be greater than the amount incurred, meaning that cash decreases more than profit. However, if expenses are accrued at the end of the reporting period, the amount incurred will be greater than the amount paid, meaning profit decreases more than cash.

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Revenue/expense item	Cash inflow/outflow
Credit sales	Receipts from debtors
Cost of sales	Payments to creditors/cash purchases of stock
Expense incurred	Expense paid

STUDY TIP

Remember opposites: capital contribution versus drawings; loan received versus repaid, stock loss versus gain, expenses prepaid versus accrued.

In reality, there will usually be a combination of reasons why a firm's cash and profit performance differ.

REVIEW QUESTIONS 16.3

1 **Identify** the three main reasons why the change in a firm's cash position may be different from its profit over the same period.
2 **Identify** two cash inflows that are not revenues. **Explain** the effect these items will have on both bank and Net Profit.
3 **Identify** three cash outflows that are not expenses. **Explain** the effect these items will have on both bank and Net Profit.
4 **Explain** how a stock gain might explain how a firm can earn profit despite suffering a cash deficit.
5 **Identify** three items that will be reported as expenses in the Income Statement, but will not be reported in the Cash Flow Statement.
6 **Explain** the effect on both cash and profit if:
- credit sales is greater than receipts from debtors
- cost of sales is greater than payments to creditors/cash purchases of stock
- expenses are prepaid for the next reporting period.

WHERE HAVE WE BEEN?

- The Cash Flow Statement reports cash inflows and cash outflows separately, identifying cash flows relating to Operating activities, Investing activities and Financing activities
- The Cash Flow Statement is used to aid decision-making and planning.
- Cash and profit are different measures of performance, and may differ because some cash inflows are not revenues, some cash outflows are not expenses, and some items affect both cash and profit, but by differing amounts.

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EXERCISES

EXERCISE 16.1
CLASSIFYING CASH FLOWS

WB page 264

For each of the following items, **state** whether it is a cash inflow, cash outflow, or non-cash transaction. **State** whether each cash flow item should be classified as Operating, Investing or Financing.

Item

Receipts from debtors	Cash purchase of equipment
Wages paid	Loan repayment
Cash sales	Cash drawings
Payments to creditors	Drawings of stock
Cash purchase of stock	Prepaid rent

EXERCISE 16.2
OPERATING ACTIVITIES

WB page 265

Kate Grinter owns Blush, a shop selling make-up and perfume. She has presented the following information for the year ending 30 June 2016.

Cash sales	40 000	Credit purchases	24 000
GST received	4 000	GST incurred on credit purchases	2 400
GST paid	1 000	GST settlement	2 000
Loan repayment	8 000	Payments to creditors	34 000
Advertising paid	1 500	Wages paid	11 600
Stock loss	850	Cash purchase of Office Equipment	4 700

Required

a **Explain** what is meant by the term Operating activities.
b **Calculate** Net Operating Cash Flows for Blush for the year ended 30 June 2016.
c Referring to your answer to part 'b', **explain** your treatment of:
- stock loss
- loan repayment.

EXERCISE 16.3
OPERATING ACTIVITIES

WB page 266

Beach Gems sells jewellery and has provided the following information for the quarter ended 30 September 2016.

Cash sales	20 000	GST received	2 000
Credit sales	35 000	Receipts from debtors	29 000
Rent expenses	9 000	Prepaid rent paid	15 000
Cash purchase of van	35 000	Cash purchases	19 500
Interest paid	800	Drawings	12 000
Wages paid	12 700	Wages expense	13 000
GST paid	6 950	GST refund	1 300

Required

a **Calculate** Net Operating Cash Flows for Beach Gems for the quarter ended 30 September 2016.
b **State** one reason why wages paid is less than wages expense.
c **State** two reasons why GST paid does not equal 10% of Operating Outflows.
d **Explain** the importance of Net Operating Cash Flows in assessing liquidity.

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EXERCISE 16.4
INVESTING ACTIVITIES

WB page 267

Rugged Fashions has provided the following information for February 2016.

Cash purchase of vehicle	5 600	Depreciation of vehicle	2 800
Credit purchase of equipment	5 000	Prepayment of rent	15 000
Loan repayment	12 000	GST settlement	4 800
Drawings	30 000	Sale of equipment for cash	2 300
Cash purchase of office furniture	2 600	Receipt of loan	20 000

Required

- a **Explain** what is meant by the term Investing activities.
- b **Calculate** Net Investing Cash Flows for Rugged Fashions for February 2016.
- c Referring to your answer to part 'b', **explain** your treatment of:
  - credit purchase of equipment
  - prepayment of rent.
- d **Explain** how Investing Cash Flows may have a negative effect on Net Profit.

EXERCISE 16.5
FINANCING ACTIVITIES

WB page 268

Monry Motors has provided the following information for the six months ended 31 December 2016.

Receipt of loan – CER Finance	30 000	Cash drawings	25 000
Loan repayment	5 000	Cash sales	50 000
Credit purchase of furniture	3 200	Interest paid	150
Capital contribution	30 000	Drawings of stock	3 800

Required

- a **Explain** what is meant by the term Financing activities.
- b **Calculate** Net Financing Cash Flows for Monry Motors for the 6 months ended 31 December 2016.
- c Referring to your answer to part 'b', **explain** your treatment of:
  - interest paid.
  - drawings of stock.
- d **Explain** how Financing Cash Flows may have a positive effect on Net Profit.

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EXERCISE 16.6
CASH FLOW STATEMENT

WB page 269

Busy Bytes sells computers and components, and has provided the following Statement of Receipts and Payments for the year ended 30 June 2016.

BUSY BYTES

Statement of Receipts and Payments for year ended 30 June 2016

	$	$
Cash Receipts		
Cash Sales	62 000	
Capital	2 000	
GST Received	6 200	70 200
Less Cash Payments		
Payments to Creditors	24 500	
Wages	17 000	
Drawings	6 000	
GST Paid	1 890	
Shop Fittings	11 000	
Interest on Loan	800	
Prepaid Rent	5 400	
GST Settlement	4 200	
Cartage Inwards	2 500	
Loan Repayment	1 500	74 790
Cash Surplus (Deficit)		**(4 590)**
Bank Balance at Start (1 July 2015)		**2 500**
Bank Balance at End (30 June 2016)		**(2 090)**

Required

a **Prepare** a Cash Flow Statement for Busy Bytes for the year ended 30 June 2016.

b In terms of cash management, **explain** one reason why the owner should not be overly concerned that Busy Bytes suffered a cash deficit for the year ended 30 June 2016.

c Referring to the information provided, **explain** two reasons that might explain why Busy Bytes was able to earn a profit despite suffering a cash deficit in the year ended 30 June 2016.

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EXERCISE 16.7
CASH FLOW STATEMENT

WB page 271

Cracked Pepper is a clothing retailer, and has provided its Statement of Receipts and Payments for May 2016.

CRACKED PEPPER

Statement of Receipts and Payments for May 2016

	$	$
Cash Receipts		
Cash Sales	3 000	
Loan – nab	10 000	
GST Received	300	
GST Refund	800	14 100
Less Cash Payments		
Stock	1 300	
Wages	2 500	
Drawings	1 800	
GST Paid	730	
Loan Repayment	1 200	
Interest	100	
Vehicle	6 000	13 630
Cash Surplus (Deficit)		**470**
Bank Balance at Start (1 May 2016)		**(1 500)**
Bank Balance at End (31 May 2016)		**(1 030)**

Required

a **Prepare** a Cash Flow Statement for Cracked Pepper for May 2016.

b Referring to the information provided, **explain** two reasons why Cracked Pepper was able to generate a cash surplus despite suffering a Net Loss for May 2016.

c **Explain** why the owner should be concerned about the firm's Operating Cash Flows for May 2016.

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EXERCISE 16.8
CASH FLOW STATEMENT

WB page 273

The cash journal totals for Tim's Tiny Tents for January 2016 were as follows.

Cash Receipts Journal

Date	Details	Rec. No.	Bank	Sales	Sundries	GST
Jan.	Loan – Westworth				9 000	
	GST Refund				600	
	TOTALS		**36 000**	**24 000**	**9 600**	**2 400**

Cash Payments Journal

Date	Details	Chq.	Bank	Stock	Drawings	Wages	Sundries	GST
Jan.	Interest on loan						50	
	Equipment						1 000	
	TOTALS		**31 450**	**17 000**	**1 600**	**10 000**	**1 050**	**1 800**

Additional information:

- As at 1 January 2016, the business had an overdraft of $1 800.
- Cost of sales for January 2016 was $20 000.
- Tim is delighted that a cash surplus has been generated, and so is planning to hire more staff.

Required

a **Prepare** a Cash Flow Statement for Tim's Tiny Tents for January 2016.
b Referring to your answer to part 'a', **explain** one reason why Tim should not hire more staff.
c **Explain** why Net Investing Cash Flows will usually be negative.
d **Explain** the effect of Financing Cash Flows for January 2016 on the Debt Ratio of Tim's Tiny Tents.

EXERCISE 16.9
CASH FLOW STATEMENT

WB page 275

Bella Rosa Tiles has provided the following information for November 2016.

Cash Receipts Journal

Date	Details	Rec No.	Bank	Debtors	Sales	Sundries	GST
Nov.	Loan – GE Finance					10 000	
	TOTALS		**21 200**	**3 500**	**7 000**	**10 000**	**700**

Cash Payments Journal

Date	Details	Chq.	Bank	Creditors	Drawings	Wages	Sundries	GST
Nov.	Loan Repayment						700	
	Interest on Loan						100	
	Vehicle						12 000	
	GST Settlement						600	
	TOTALS		**17 800**	**1 200**	**500**	**1 500**	**13 400**	**1 200**

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Additional information:

- The firm's bank balance as at 30 November 2016 was $7000.
- Credit sales for November 2016 was $2200 (including $200 GST).
- The business suffered a Net Loss of $500 for November 2016.

Required

a **Prepare** a Cash Flow Statement for Bella Rosa Tiles for November 2016.
b **Suggest** one reason for the Loan – GE Finance.
c Referring to the information provided, **explain** two reasons why Bella Rosa Tiles was able to generate a cash surplus despite incurring a Net Loss in November 2016.

EXERCISE 16.10
REPORTING FOR CASH AND PROFIT

WB page 277

Quality Comics has provided the following journal totals for the quarter ended 30 June 2016.

Sales Journal

Date	Debtor	Invoice number	Sales	GST	Total Debtors
	TOTALS		**30 000**	**3 000**	**33 000**

Cash Receipts Journal

Date	Details	Rec. No.	Bank	Debtors	Sales	Sundries	GST
	Capital Contribution					20 000	
	TOTALS		**99 400**	**42 000**	**34 000**	**20 000**	**3 400**

Cash Payments Journal

Date	Details	Chq.	Bank	Stock	Drawings	Wages	Sundries	GST
	Freight In						1 000	
	Display Equipment						9 700	
	Prepaid Insurance						12 000	
	Loan Principal						2 100	
	Interest on Loan						400	
	GST Settlement						800	
	TOTALS		**107 520**	**52 500**	**5 000**	**16 500**	**26 000**	**7 520**

Additional information:

- The bank balance at 1 April 2016 was $1400 overdrawn. The business has negotiated an overdraft limit of $10 000.
- All stock is purchased using cash. Cost of Sales for the quarter was $34 500, and a stock loss of $600 was incurred.
- Yearly insurance was paid in advance on 1 April 2016.
- Depreciation on display equipment for the quarter ended 30 June 2016 amounted to $1 200.

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Required

- **a** **State** whether Debtors as at 30 June 2016 would be higher or lower than Debtors as at 1 April 2016. **Justify** your answer.
- **b** **Prepare** a Cash Flow Statement for Quality Comics for the quarter ended 30 June 2016.
- **c** **State** why the owner had to contribute additional capital during the quarter.
- **d** **Explain** how the GST affected the Bank balance for the quarter ended 30 June 2016.
- **e** **Calculate** insurance expense for the quarter ended 30 June 2016.
- **f** **Prepare** an Income Statement for Quality Comics for the quarter ended 30 June 2016.
- **g** Other than GST, **explain** two reasons why Quality Comics was able to earn a Net Profit despite suffering a cash deficit for the quarter ended 30 June 2016.

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Where are we headed?

After completing this chapter, you should be able to:

- **define** profitability, liquidity, efficiency and stability
- **distinguish** between profit and profitability
- **calculate** and **interpret** various financial indicators
- **identify** and **explain** the relationships between financial indicators
- **analyse** and **evaluate** business performance using trends, variances, benchmarks, financial indicators and non-financial information
- **suggest** and **discuss** strategies to improve business performance.

CHAPTER 17

EVALUATING PERFORMANCE

KEY TERMS

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

- analysing
- interpreting
- efficiency
- stability
- trend
- variance
- benchmark
- financial indicator
- Return on Owner's Investment (ROI)
- gearing
- Debt Ratio
- Return on Assets (ROA)
- Asset Turnover (ATO)
- expense control
- Net Profit Margin (NPM)
- Gross Profit Margin (GPM)
- vertical analysis
- Cash Budget
- Working Capital Ratio (WCR)
- Quick Asset Ratio (QAR)
- Stock Turnover (STO)
- Debtors Turnover (DTO)
- Creditors Turnover (CTO)
- non-financial information.

17.1 ANALYSIS AND INTERPRETATION

The whole point of gathering, recording and reporting accounting information is so that we can assist the owner of the business in making financial decisions. So once we have the reports – the Cash Flow Statement, Income Statement and Balance Sheet – we need to analyse and interpret what they show so that we can provide advice to the owner on the strengths and weaknesses of the business, and strategies and techniques the owner can use to improve its performance.

In accounting terms, **analysing** involves examining the reports in great detail to identify *changes or differences in performance*; **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 like 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.

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

Profitability
the ability of the business to earn profit, as compared 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

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Business survival depends on having both satisfactory profitability *and* satisfactory liquidity: obviously earning a profit is the point of being in business in the first place, but a profitable business will still fail if it cannot pay its debts.

(In addition to evaluating profitability and liquidity, it is smart business practice to assess the firm's efficiency – its ability to manage its assets. This would include an assessment of Stock Turnover, Debtors Turnover and Creditors Turnover, covered in Chapters 12 and 14.)

Tools for assessing performance

There are various tools available to assess performance, including:

- trends
- benchmarks
- variances
- financial indicators.

Trends

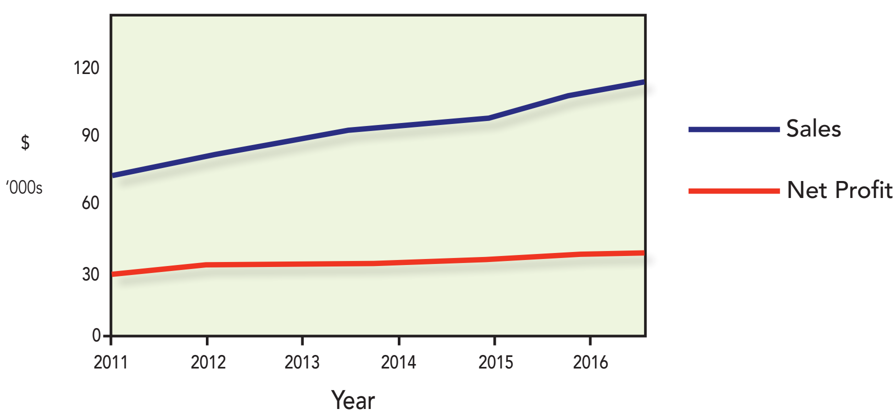
Where changes over a number of periods form a pattern, this is known as a **trend**. Trends can be very useful for identifying areas of business performance that are improving or declining. The trend in Sales and Net Profit can be used as a starting point to analyse profitability, with an upward trend indicating improving performance. The same technique could be applied to liquidity via the trend in the bank balance. Obviously the reasons behind the trend would then need to be investigated, but it is by identifying the trend that the need for an investigation is revealed.

Trend
the pattern formed by changes in an item over a number of periods

In order to improve the *Understandability* of the 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 17.1 shows a line graph showing Sales revenue and Net Profit for 2011 to 2016.

Figure 17.1 ***Line graph: Sales revenue and Net Profit***



The trend in both Sales revenue and Net Profit is upwards, and this may indicate improved profitability. However, the divergence in the trends – with Sales revenue increasing much faster than Net Profit – might indicate that expense control has deteriorated. This would need to be investigated in more detail using other analysis tools, but is the trend that has sparked the need for that investigation.

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Variance
the difference between an actual figure and a budgeted figure, expressed as 'favourable' or 'unfavourable'

Benchmark
an acceptable standard against which the firm's actual performance can be assessed

Financial indicator
a measure that expresses business performance in terms of the relationship between two different elements of that performance

STUDY TIP

Strictly speaking, Asset Turnover is an efficiency indicator, but its significance for profitability means it is part of our discussion here.

Variances

Trends highlight changes from one period to the next, but they don't allow the owner to assess whether the business has met its targets or goals for that period. A **variance** is identified by comparing the actual figures against the *budgeted* or expected figures to identify areas in which performance has been below – or hopefully above – expectations. Particularly by identifying unfavourable variances, the owner can identify where corrective or remedial action is needed.

Benchmarks

What trends and variances have in common is that they compare actual performance with a **benchmark** of some sort, which is an acceptable standard of performance (sometimes known as a yardstick). Comparing current performance against performance in a *previous period*, trends can be identified, and the owner can assess whether performance has *improved or worsened*. Alternatively, comparing current performance against the *budgeted figures* allows the owner to identify variances, and assess whether the firm's performance was *satisfactory or unsatisfactory* in terms of meeting its goals/ expectations.

Benchmarks such as these use *internal* information, and compare the performance of one business with its own previous or expected results. However, it is also desirable to use *external* benchmarks to compare the firm's performance against that of other, *similar firms*. This type of inter-firm comparison is sometimes measured by an *industry average*, and allows the firm's performance to be compared against its competitors in the same industry.

Financial indicators

In addition to the tools outlined above, the owner may ask the accountant to calculate any number of financial indicators. Sometimes known as ratios (even though most are actually presented as percentages), **financial indicators** express business performance in terms of the relationship between two elements of that performance. As a result, differences between years and also between businesses can be assessed, as the indicator expresses performance according to a common base.

Profitability indicators express an element of profit in relation to some other aspect of business performance, and include:

- Return on Owner's Investment (ROI)
- Return on Assets (ROA)
- Asset Turnover (ATO)
- Net Profit Margin (NPM)
- Gross Profit Margin (GPM).

Also important to an assessment of profitability is the Debt Ratio. Although it assesses long-term stability, it has a direct and significant effect on profitability as measured by the Return on Owner's Investment.

A similar approach can be used to assess liquidity, by measuring the funds available to meet short-term debts and comparing it against the level of debts which must be met. Liquidity indicators include:

- Working Capital Ratio (WCR)
- Quick Asset Ratio (QAR).

The efficiency indicators discussed in earlier chapters – Stock Turnover, Debtors Turnover and Creditors Turnover – also affect liquidity (and in the case of Stock Turnover, profitability), by determining the speed at which cash is generated.

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REVIEW QUESTIONS 17.1

1 **Explain** the difference between *analysing* and *interpreting* financial information.
2 **Define** the following terms:
   - profitability
   - liquidity
   - efficiency
   - stability.
3 **Explain** how the following measures can be used in an assessment of performance:
   - trends
   - variances.
4 **List** three benchmarks which can be used to assess business performance.
5 **Explain** how financial indicators can be used to assess business performance.
6 **List** the indicators which can be used to assess profitability.
7 **List** the indicators which can used to assess liquidity.
8 **Explain** how turnover indicators affect liquidity.

17.2 ASSESSING PROFITABILITY

Profitability: the ability of the business to earn profit, measured by comparing its profit against a base like sales, assets or Owner's Equity

In simple terms, a firm's ability to earn profit is dependent on its ability to:

- earn revenue and
- control its 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. 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. For example, a larger firm is likely to generate a much larger profit (in dollar terms) than a smaller rival. 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*, a comparison of the ability of each firm to earn profit if they had the same asset base would be possible, showing which was more profitable.

Thus, 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* therefore allows for comparisons between different firms, and different periods.

REVIEW QUESTIONS 17.2

1 **State** the two basic factors on which the ability to earn a profit is dependent.
2 **Explain** why an evaluation of business performance assesses profitability rather than just profit.

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17.3 RETURN ON OWNER'S INVESTMENT (ROI)

One of the idiosyncrasies of a sole-trader business is that the owner is also the manager. As a result, the owner will be interested in the firm's profitability as its *owner* and as its *manager*, and this may require different information.

Return on Owner's Investment (ROI)
a profitability indicator that assesses how effectively a business has used the owner's capital to earn profit

From an investor's point of view, the main measure of profitability is the **Return on Owner's Investment (ROI)**, which assesses how effectively the business has used the owner's funds to earn profit, which is useful in helping the owner to assess how profitable the firm is as an investment, and to decide between alternative investments.

Return on Owner's Investment formula

$$\textbf{Return on Owner's Investment (ROI)} = \frac{\textbf{Net Profit}}{\textbf{Average Capital}} \times \textbf{100}$$

Specifically, Return on Owner's Investment measures Net Profit earned (return) per dollar of capital invested by the owner. Given that the Net Profit figure is earned *over a period*, but Capital is measured *at a point in time*, 'Average Capital' is used in the calculation of Return on Owner's Investment to account for any increases or decreases in capital over the year. This Average Capital is calculated as:

$$\textbf{Average Capital} = \frac{\textbf{Capital at start + Capital at end}}{\textbf{2}}$$

EXAMPLE

The owner of Basia's Paints has provided the following information:

Net Profit	$ 33 600
Capital – 1 July 2015	234 000
Capital – 30 June 2016	246 000

The owner is disappointed with the firm's profit as she was expecting to earn $47 000 for the year.

The Return on Owner's Investment would be calculated as is shown in Figure 17.2.

Figure 17.2 ***Return on Owner's Investment***

$$\begin{aligned} \textbf{ROI} &= \frac{33\,600}{(234\,000 + 246\,000)/2} \times 100 \\ &= \frac{33\,600}{240\,000} \times 100 \\ &= 14\% \end{aligned}$$

A Return on Owner's Investment of 14% means that for every dollar of capital she has invested, the owner has earned 14c profit. This might not seem like much – and this seems to be the owner's view! – but before we decide on its adequacy, we must compare it against some sort of benchmark.

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Assessing Return on Owner's Investment

As with most profitability indicators, there is no set level at which the Return on Owner's Investment would be considered to be satisfactory. Rather, it should be compared against one or more of the following benchmarks:

- 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, and we must not lose sight of the fact that owners take risks by investing their own money in the business.

In addition, by investing in the business, 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 might be compared against:

- the interest rate on a term deposit
- the rent earned from property
- the dividend earned on shares
- the Return on Owner's Investment earned by similar businesses.

Some owners may demand a Return on Owner's Investment that is *above* these alternative investments to account for the risk they took by investing, and the long hours they work. Conversely, the satisfaction that comes from running your own business may mean the owner is willing to accept a slightly *lower* return as a trade-off.

Return on Owner's Investment and the Debt Ratio

Obviously the Net Profit the business earns is a significant determinant of the Return on Owner's Investment, but so is the level of investment made by the owner, and this will depend on how the business is financed. Thus the firm's **Debt Ratio** – which measures its **gearing** – will affect its Return on Owner's Investment.

Gearing
the extent to which the business relies on borrowed funds to finance the purchase of its assets

Debt Ratio
measures the proportion of the firm's assets that are funded by external sources

Debt Ratio formula

$$\textbf{Debt Ratio} = \frac{\textbf{Total Liabilities}}{\textbf{Total Assets}} \times 100$$

This indicator measures the percentage of the firm's total assets that have been financed using borrowed funds (liabilities). We saw in Chapter 4 that a business that relies heavily on borrowed funds will have a high Debt Ratio (high gearing), which is generally considered to be a danger sign for long-term stability. However, a high Debt Ratio can actually have a positive effect on profitability, because the owner still receives all the profit, but the business is using someone else's funds to buy the assets to earn that profit.

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EXAMPLE

	Hilda's Hardware	Steve's Supplies
Net Profit	$ 25 000	25 000
Total Liabilities	75 000	120 000
Owner's Equity	125 000	80 000
Total Assets	200 000	200 000
Debt Ratio	37.5%	60%
Return on Owner's Investment	20%	31.25%

In this example, both firms are the same size (with total assets of $200 000), and have earned the same Net Profit of $25 000. However, the way they have financed their assets is different: with a Debt Ratio of 60%, Steve's Supplies has used more borrowed funds to purchase its assets. As a consequence, the owner has had to contribute $45 000 less capital than the owner of Hilda's Hardware, resulting in a higher Return on Owner's Investment (31.25% compared to 20%).

(Even though a higher Debt Ratio means a higher Return on Owner's Investment, it also means a higher risk that the business will be unable to repay its debts and meet the interest payments. Therefore, the owner must judge carefully so that the Debt Ratio is high enough to maximise the Return on Owner's Investment, without sending the business into difficulties in relation to its debt burden.)

STUDY TIP

The Debt Ratio does not *measure* profitability, but it has a significant *effect* on profitability

REVIEW QUESTIONS 17.3

1. **State** what is measured by Return on Owner's Investment (ROI).
2. **Show** the formula to calculate Return on Owner's Investment.
3. **List** three benchmarks that could be used to assess the adequacy of the Return on Owner's Investment.
4. **Explain** the significance of the return on similar investments as a benchmark for assessing the Return on Owner's Investment.
5. **State** what is measured by the Debt Ratio.
6. **Explain** how the Debt Ratio can affect the Return on Owner's Investment.

17.4 RETURN ON ASSETS (ROA)

Return on Assets (ROA) a profitability indicator that assesses how effectively a business has used its assets to earn profit

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: it assesses how effectively the firm has used its assets to earn profit.

Return on Assets formula

$$\textbf{Return on Assets (ROA)} = \frac{\textbf{Net Profit}}{\textbf{Average Total Assets}} \times 100$$

Return on Assets measures Net Profit earned per dollar of assets controlled by the business. Just as the formula for Return on Owner's Investment used average capital, Return on Assets uses average total assets to acknowledge that the level of assets used to earn profit may change over time.

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EXAMPLE

Jan's Jewellery has provided the following information for 2016:

Net Profit	$ 21 600
Total Assets – 1 January 2016	175 000
Total Assets – 31 December 2016	185 000

The Return on Assets would be calculated as is shown in Figure 17.3.

Figure 17.3 ***Return on Assets***

$$\textbf{ROA} = \frac{21\,600}{(175\,000 + 185\,000)/2} \times 100$$

$$= \frac{21\,600}{180\,000} \times 100$$

$$= 12\%$$

STUDY TIP

If Total Assets has not changed significantly, or an average cannot be calculated, Total Assets at the end of the period may be used.

A Return on Assets of 12% means that for every dollar of Assets under the control of Jan's Jewellery, it has earned 12c profit.

Assessing Return on Assets

Because it expresses profit *relative to assets*, the Return on Assets can be used to:

Compare the profitability of businesses of different sizes

If we were to compare two businesses of different size – one with more assets under its control than the other – we would not be surprised if the larger business had a larger profit. However, this does not mean that larger businesses are always more profitable; they could in fact be *less* profitable than a smaller, more effectively run business. By calculating the Return on Assets, businesses of different sizes can be compared to ascertain which has used its assets more effectively to earn profit.

Compare the profitability of one business over time

If a business increased its asset base, it would expect both its revenue – and profit – to increase, making an assessment of the reasons for the change in its profitability difficult to identify. That is, was the business more profitable, or just bigger? By calculating the Return on Assets, the effect of changes in assets can be isolated from changes in its profitability.

Return on Owner's Investment and Return on Assets

When comparing these two profitability indicators, the owner will probably realise that the Return on Owner's Investment will always be higher than the Return on Assets, because Owner's Equity will always be lower than total assets. This of course is due to the firm's liabilities. The greater the liabilities (and therefore the greater the Debt Ratio), the greater will be the gap between the Return on Owner's Investment and Return on Assets.

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. The Return on Owner's Investment will tell the owner whether it is worth continuing the investment in the business, and the Return on Assets will tell

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the owner how effectively the business has been managed. Sometimes these indicators will provide conflicting advice – such as a well-managed business that is nonetheless an unprofitable investment – and in these cases the owner must make a decision between their demands as an investor, and as a manager/operator.

Net Profit and Return on Assets

Assuming assets do not change, a change in the Return on Assets will be solely the result of a change in profit, which may itself be the result of a change in the firm's ability to earn revenue, or control its expenses (or both). As a result, the Return on Assets will depend heavily on the firm's ability to earn revenue and control its expenses. Thus, the Return on Assets is dependent on two other profitability indicators:

- Asset Turnover (which measures revenue earning ability) and
- Net Profit Margin (which measures expense control).

REVIEW QUESTIONS 17.4

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 a firm's Return on Owner's Investment will always be higher than its Return on Assets.
5. **Explain** how Return on Assets is affected by the Asset Turnover and Net Profit Margin.

17.5 EARNING REVENUE: ASSET TURNOVER (ATO)

Asset Turnover (ATO) an efficiency indicator that assesses how productively a business has used its assets to earn revenue

Asset Turnover (ATO) is actually an efficiency indicator: it assesses how efficiently the firm has used it assets to generate revenue. However, earning revenue is crucial to earning profit: no revenue means no profit! Therefore, assessing a firm's Asset Turnover is integral to assessing its profitability.

Asset Turnover formula

$$\textbf{Asset Turnover (ATO)} = \frac{\textbf{Sales}}{\textbf{Average Total Assets}}$$

Specifically, this indicator measures the number of times in a period the value of the firm's assets is earned as sales revenue: the higher the Asset Turnover, the more capable the firm is of using its assets to earn revenue.

EXAMPLE

Drake and Cain clothing shop has provided the following information for 2016:

Sales revenue	$ 243 000
Average Total Assets	90 000

The Asset Turnover would be calculated as is shown in Figure 17.4.

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Figure 17.4 ***Asset Turnover***

$$\text{ATO} = \frac{\$243\,000}{90\,000} = 2.7 \text{ times}$$

An Asset Turnover of 2.7 times means that during the period, sales revenue was 2.7 times the size of assets.

Assessing Asset Turnover

Just like Return on Assets, Asset Turnover expresses an element of profitability (in this case, Sales revenue) relative to assets, so it can be used to assess revenue-earning ability *independent of the level of assets* involved. This means it can be used not only to assess different businesses, but also the same business over time. An increase in revenue should flow from an increase in the assets that are used to earn that revenue, but by measuring Asset Turnover the owner can identify if there were any improvements – or deteriorations – in how productively those assets were used.

(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

Both the Return on Assets and Asset Turnover assess the firm's ability to use its assets, the only difference being that the Return on Assets relates to profit, whereas Asset Turnover relates only to revenue. Theoretically, a higher Asset Turnover (meaning more Sales revenue per dollar of assets) should mean an increase in the Return on Assets (and more Net Profit per dollar of assets). However, revenue does not always translate into profit: expense control is also required.

REVIEW QUESTIONS 17.5

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** the relationship between Asset Turnover and Return on Assets.

17.6 CONTROLLING EXPENSES: NET PROFIT MARGIN (NPM)

As we noted earlier in this chapter, earning profit is – at its most basic – fairly simple: all the business has to do is earn enough revenue and control its expenses. Unfortunately, earning revenue and controlling expenses are far from simple tasks, and require careful and constant attention. We have already noted how Asset Turnover measures how productively a business has used its assets to earn revenue, so let's now turn our attention to an assessment of expense control.

Expense control refers to the firm's ability to manage its expenses so that they either decrease, or increase no more than sales revenue. Although a reduction in expenses is desirable, we must also recognise that some expenses (like Cost of Sales

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

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and Wages) must increase as sales revenue increases. For these items, *control* rather than *reduction* is the goal. Further, some expenses (like Advertising) may in fact have to increase in order to generate greater sales. As long as expenses like these do not increase more than sales, we can consider this to be evidence of satisfactory expense control. Should they actually fall or increase by less than sales, we would consider this to be evidence of improved expense control.

Net Profit Margin (NPM)

Although expenses are a necessary part of doing business, every dollar of sales revenue that is consumed by expenses means one dollar less as profit for the owner. This means that effective expense control is a fundamental characteristic of a profitable small business, and should be part of any assessment of profitability.

If we measure the percentage of sales revenue that is retained as Net Profit, we will able to assess the effectiveness of the firm's expense control, and this is done using the **Net Profit Margin (NPM)**.

Net Profit Margin (NPM)
a profitability indicator that assesses expense control by calculating the percentage of sales revenue that is retained as Net Profit

Net Profit Margin formula

$$\textbf{Net Profit Margin (NPM)} = \frac{\textbf{Net Profit}}{\textbf{Sales revenue}} \times 100$$

This indicator measures how much of every dollar of sales revenue is retained as Net Profit (and thus – by extension – how much was consumed by expenses).

EXAMPLE

Kris Toyland has provided the following information for 2016:

Sales revenue	$150 000
Net Profit	24 000

The Net Profit Margin would be calculated as is shown in Figure 17.5.

Figure 17.5 ***Net Profit Margin***

$$\textbf{NPM} = \frac{\$24\,000}{150\,000} \times 100$$
$$= 16\%$$

A Net Profit Margin of 16% means that for every dollar of sales revenue the business earned, it retained 16c as Net Profit. Another way of looking at the Net Profit Margin is from an expense perspective – expenses consumed 84c ($1 less 16c profit) of every dollar of sales revenue.

Assessing Net Profit Margin

Because this indicator expresses Net Profit *per dollar of sales*, it can be used to identify changes in profit independent of changes in the total value of sales revenue. This means it can be compared against the figures from *previous periods, similar businesses* or in the *budgets*. Any changes will indicate a change in expense *control*, rather than just a change in expenses or revenues in dollar terms.

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Net Profit Margin, Asset Turnover and Return on Assets

We now have two specific indicators that measure the two factors that determine whether a firm will generate a satisfactory Return on Assets:

- Asset Turnover to assess revenue earning capability
- Net Profit Margin to assess expense control.

Therefore the Return on assets will be a function of the Asset Turnover and the Net Profit Margin: if these indicators change, then so too will the Return on Assets.

REVIEW QUESTIONS 17.6

1 **Define** the term 'expense control'.
2 **State** two reasons why some expenses must increase in the pursuit of profit.
3 **State** what is measured by the Net Profit Margin (NPM).
4 **Show** the formula to calculate the Net Profit Margin.
5 **Explain** the relationship between Asset Turnover, Net Profit Margin, and Return on Assets.

17.7 GROSS PROFIT MARGIN (GPM)

The Net Profit Margin can be used to assess control of expenses *overall*, but for a trading business there is one expense where control is particularly important: Cost of Goods Sold. The **Gross Profit Margin (GPM)** assesses how effectively the business has managed its Cost of Goods Sold by measuring the percentage of each dollar of sales revenue that is retained as Gross Profit. And given that Gross Profit is used to assess the adequacy of the firm's mark-up (the difference between the selling price and cost price of its stock), the Gross Profit Margin can be used to assess the average mark-up on all goods sold during a particular period.

Gross Profit Margin (GPM)
a profitability indicator which assesses the average mark-up by calculating the percentage of sales revenue that is retained as Gross Profit

Gross Profit Margin formula

$$\textbf{Gross Profit Margin (GPM)} = \frac{\textbf{Gross Profit}}{\textbf{Sales revenue}} \times 100$$

This indicator measures how much of every dollar of sales revenue is retained as Gross Profit (and – by extension – how much was consumed by Cost of Goods Sold). It can be used to assess the firm's average mark-up, and thus the effectiveness of its control of Cost of Goods Sold.

EXAMPLE

Geelong Car Sound has provided the following information for 2016:

Sales Revenue	$210 000
Cost of Goods Sold	126 000
Gross Profit	84 000
Other Expenses	52 500
Net Profit	31 500
Net Profit Margin	15%

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The Gross Profit Margin would be calculated as is shown in Figure 17.6.

Figure 17.6 ***Gross Profit Margin***

$$\textbf{GPM} = \frac{\$84\,000}{210\,000} \times 100$$
$$= 40\%$$

A Gross Profit Margin of 40% means that for every dollar of sales revenue earned, 40c was retained as Gross Profit (and 60c was consumed by Cost of Goods Sold).

Assessing Gross Profit Margin

The size of the Gross Profit Margin indicates the size of the average mark-up – the gap between selling and cost prices. Should this gap increase, the business will make more Gross Profit *per sale*, but this is not always easy, and does not always translate into greater profit overall.

For instance, a *higher selling price* will increase the average mark-up, but it carries the risk of lowering demand, and thus reducing the volume of sales. In a competitive market, customers can be sensitive to price increases, and could simply go elsewhere if prices increase (or increase too much). This could mean that whilst the business may make a higher Gross Profit *per item* (and a higher Gross Profit Margin), it may make fewer actual sales, and if sales volume drops too far, Gross Profit *in dollar terms* will actually fall.

On the other hand, finding a supplier with a *lower cost price* might mean no discernible change for customers – unless the quality of the new products is inferior! Poor quality stock could mean a loss of customers and a decrease in sales volume, as well higher returns and stock losses (through damage).

This does not mean the business should not look for a cheaper supplier: all businesses should be alert to cheaper and better ways of doing business. But it does mean the business must be vigilant about the quality of its stock, and mindful of the demands of its customers. The challenge is to find a price customers are willing to pay for stock that will still generate revenue to meet the firm's expenses.

In the face of competition from large businesses (which have the financial strength to absorb a lower average mark-up), small businesses are frequently better off competing on quality and service rather than price.

REVIEW QUESTIONS 17.7

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 actually lead to a decrease in Gross Profit.

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17.8 VERTICAL ANALYSIS OF THE INCOME STATEMENT

The Net Profit Margin and Gross Profit Margin allow us to evaluate expense control because they reveal what percentage of each dollar of revenue is retained as Net Profit and Gross Profit respectively. A similar approach can be applied to every item in the Income Statement in order to determine the percentage of sales revenue consumed by each expense. This technique of calculating every figure in a report in terms of a base figure (in this case Sales) is known as a **vertical analysis**.

The vertical analysis for Geelong Car Sound for 2016 is shown in Figure 17.7.

Vertical analysis
a report which expresses every item as a percentage of a base figure (in this case, sales revenue)

Figure 17.7 ***Income Statement: Vertical analysis***

GEELONG CAR SOUND

Income Statement for 2016

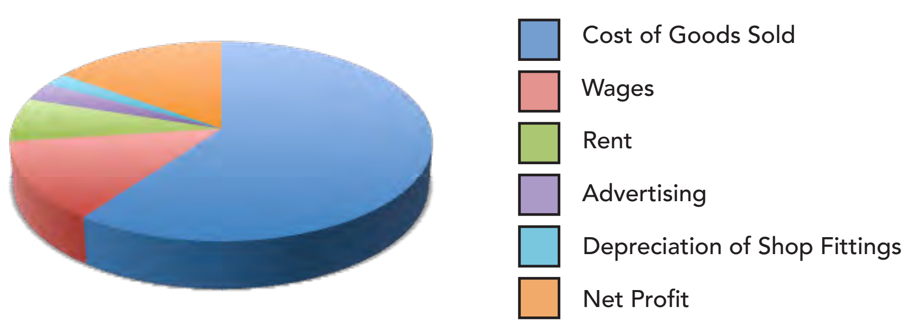
	2016	%
Sales	210 000	100
Cost of Goods Sold	126 000	60
Gross Profit	**84 000**	40
Less Other Expenses		
Wages	27 300	13
Rent	14 700	7
Advertising	6 300	3
Depreciation of Shop Fittings	4 200	2
Net Profit	**31 500**	15

The figures show that *for every dollar of sales revenue* that is earned:

- Cost of Goods Sold consumes 60c, leaving 40c as Gross Profit (meaning a Gross Profit Margin of 40%)
- Of the 40c retained as Gross Profit, 13c is consumed by Wages, 7c by Rent, 3c by Advertising, and 2c by Depreciation of Shop Fittings, leaving 15c as Net Profit (meaning a Net Profit Margin of 15%).

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 17.8 shows the pie chart for 2016:

Figure 17.8 ***Vertical analysis: pie chart***



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In order to improve *profit*, the owner should aim to increase the size of the pie – the amount of revenue that is earned. But in order to improve *profitability*, owners should aim to increase the size of the slice that is retained as Net Profit. If they can do both, then both profit and profitability will increase.

Assessing the vertical analysis

The great benefit of preparing a vertical analysis is that we can see changes not just in expense amounts, 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*, thus allowing us to assess the effectiveness of expense control.

REVIEW QUESTIONS 17.8

1. **Explain** what is shown in a vertical analysis of the Income Statement.
2. **Explain** one benefit of preparing a vertical analysis as a pie chart.

17.9 ASSESSING LIQUIDITY

Cash Budget
an accounting report that predicts future cash receipts and payments, determines the expected cash surplus or deficit, and thus estimates the cash balance at the end of the budget period

As we have seen many times, it is possible that a profitable business may still fail because it cannot pay its debts on time. Therefore an assessment of business performance must consider the firm's liquidity – its ability to meet its short-term debts as they fall due.

The importance of the Cash Budget

In terms of assessing whether a business will be able to meet its debts in the coming year, there is no substitute for the **Cash Budget**. This report predicts cash inflows and cash outflows for the coming year, allowing the owner to assess exactly whether the business will have enough liquid funds to meet its debts. (See Chapter 9 for a reminder).

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If the Cash Budget predicts a cash deficit – or perhaps worse, an overdraft – the business is likely to have difficulties meeting its short-term debts as they fall due. However, at least the owner will be prepared well in advance, and may then take corrective action. Such actions might be to:

- defer the purchase of non-current assets, or use credit facilities or a loan for their purchase
- defer loan repayments
- reduce cash drawings
- make a cash capital contribution
- organise (or extend) an overdraft facility.

A predicted cash surplus should mean few liquidity problems; however, too much cash on hand can be a problem of an entirely different nature. Should the Cash Budget predict a cash surplus, which creates a large bank balance, the owner may choose to:

- purchase more/newer non-current assets
- increase loan repayments
- increase cash drawings
- expand trading activities by increasing advertising, employing more staff etc.

Other tools for assessing liquidity

Aside from the Cash Budget, the same types of tools that were used to assess profitability can be applied to an assessment of liquidity:

- trends (particularly in relation to the level of liquid funds on hand)
- variances
- benchmarks
- liquidity indicators.

REVIEW QUESTIONS 17.9

1. **Define** the term 'liquidity'.
2. **Explain** the role of the Cash Budget in evaluating liquidity.
3. **Suggest** four strategies the owner may implement to address a predicted cash deficit.
4. **Suggest** two strategies the owner may implement to use a predicted cash surplus.

17.10 WORKING CAPITAL RATIO (WCR)

In addition to the Cash Budget, there are two key indicators that can be used to assess liquidity, the first of these being the **Working Capital Ratio (WCR)**. This indicator assesses the firm's ability to meet its short-term debts as they fall due by measuring how many dollars of current assets are available to meet each dollar of current liabilities.

Working Capital Ratio (WCR) a liquidity indicator that assesses the firm's ability to meet its short-term debts as they fall due by measuring the ratio of current assets to current liabilities

Working Capital Ratio formula

$$\textbf{Working Capital Ratio (WCR)} = \frac{\textbf{Current Assets}}{\textbf{Current Liabilities}}$$

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EXAMPLE

HOLDEN PLASTICS

Balance Sheet (extract) as at 30 June 2016

Current Assets	**$**	**Current Liabilities**	**$**
Bank	4 000	Creditors	26 000
Debtors	9 000	Loan – GV Bank	18 000
Stock	45 000	Accrued Wages	5 000
Prepaid Rent Expense	2 000	GST Payable	1 000
Total Current Assets	**60 000**	**Total Current Liabilities**	**50 000**

The Working Capital Ratio would be calculated as is shown in Figure 17.9.

Figure 17.9 ***Working Capital Ratio***

$$\textbf{WCR} = \frac{\$60\,000}{50\,000}$$

$$= 1.2{:}1$$

A Working Capital Ratio of 1.2:1 means that the business has $1.20 of current assets for every dollar of current liabilities.

Assessing the Working Capital Ratio

The assumption underlying the Working Capital Ratio is that if all current liabilities were due for repayment at once, the current assets could be liquidated and the funds used to meet the debts. Therefore if current assets are greater than current liabilities – resulting in a Working Capital Ratio of *1:1 or better* – the general rule of thumb is that the business should have few difficulties in meeting its short-term debts they fall due, meaning it has a *satisfactory* level of liquidity.

At the same time, a Working Capital Ratio that is *too high* may indicate that the business has current assets that are idle:

- excess cash in the *bank* account is likely to earn relatively little interest
- excess *stock* can create problems in terms of storage costs, stock loss, and obsolescence
- an excessive *debtors* balance may mean that debtors are not paying (on time or at all), and that debts are less likely to be collected.

Depending on which particular current asset is deemed to be *too high*, the owner may choose to:

- employ cash to repay debt; expand the business (via non-current asset purchases, advertising, or hiring staff)
- increase drawings
- allow stock levels to run down before re-ordering
- contact debtors to collect amounts outstanding.

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By contrast, a Working Capital Ratio of *less than 1:1* usually indicates *unsatisfactory* liquidity: the business has insufficient current assets to cover its current liabilities, and may not be able to meet its short-term debts as they fall due. In such difficulties, 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 for the purchase of non-current assets.

REVIEW QUESTIONS 17.10

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** one problem associated with an excessive Working Capital Ratio.
5 **State** two actions the owner may be required to take if Working Capital Ratio is:
   - too low
   - too high.

17.11 QUICK ASSET RATIO (QAR)

The Working Capital Ratio assumes that, if necessary, all current assets can be liquidated immediately to generate cash. However, this may not be the most realistic assessment of the amount of cash available to meet short-term debts.

For a start, a business cannot just assume that it will be able to liquidate all its *stock* just because the firm is facing liquidity problems! And there is virtually no chance of this happening immediately. Further, current assets such as *prepaid expenses* may not be able to be liquidated at all, especially if the business has entered into a written contract with the supplier.

On the other side of the equation, it is unlikely that a *bank overdraft* will be called in (for repayment). In fact, if the overdraft is below the limit, it may actually represent a source of funds rather than a debt that must be met using current assets.

As a consequence, it may be appropriate to assess liquidity using the **Quick Asset Ratio (QAR)** as it excludes these items, thus indicating the firm's ability to meet its immediate debts using its immediate assets.

Quick Asset Ratio (QAR) a liquidity indicator that assesses the firm's ability to meet its immediate debts by measuring the ratio of quick assets to quick liabilities

Quick Asset Ratio formula

$$\textbf{Quick Asset Ratio (QAR)} = \frac{\textbf{Current assets (excluding stock and prepaid expenses)}}{\textbf{Current liabilities (excluding bank overdraft)}}$$

EXAMPLE

PRIORITY PARTS

Balance Sheet (extract) as at 30 September 2016

Current Assets	**$**	**Current Liabilities**	**$**
Debtors	10 000	Bank Overdraft	5 000
Stock	29 000	Creditors	19 000
Prepaid Rent Expense	4 000	Accrued Wages	6 000
GST Receivable	2 000		
Total Current Assets	**45 000**	**Total Current Liabilities**	**30 000**

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Figure 17.10 shows a comparison of the Working Capital Ratio and Quick Asset Ratio.

Figure 17.10 ***Working Capital Ratio versus Quick Asset Ratio***

Working Capital Ratio	Quick Asset Ratio
$WCR = \frac{45\,000}{30\,000}$	$QAR = \frac{12\,000}{25\,000}$
$= 1.5 : 1$	$= 0.48 : 1$

A Quick Asset Ratio of 0.48:1 means the business has only 48c 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*.

In this example, the Quick Asset Ratio states that the business has only 48c of quick assets available to pay each $1 of quick liabilities, indicating that the business does **not** have sufficient immediate liquidity: it may have difficulty meeting its immediate debts and may suffer liquidity problems.

Working Capital Ratio and Quick Asset Ratio

Both the Working Capital Ratio and the WAR assess the level of liquidity, and the benchmark for both is around 1:1. So what does it mean if the two indicators provide conflicting information?

In Figure 17.10, the Working Capital Ratio indicates that liquidity is satisfactory as the business has $1.50 of current assets for every $1 of current liabilities. However, the Quick Asset Ratio indicates that liquidity is **not** satisfactory as the business has only 48c of quick assets for every $1 of quick liabilities. How can the two indicators provide a seemingly contradictory assessment?

The answer lies in the different ways the ratios are calculated, and in particular, the fact that the Quick Asset Ratio does not include *stock*. In the example above, it is only due to the heavy investment in stock that the Working Capital Ratio is satisfactory: the Quick Asset Ratio indicates that without the cash from its sale, the business will have liquidity problems. Together, the indicators suggest that if the business can sell its stock, it will be able to meet its debts as they fall due; if not, liquidity problems may result.

REVIEW QUESTIONS 17.11

1. **State** what is measured by the Quick Asset Ratio (QAR).
2. **Show** the formula to calculate the Quick Asset Ratio.
3. **Explain** why the following items are excluded from the calculation of the Quick Asset Ratio:
   - stock
   - prepaid expenses
   - bank overdraft.
4. **Explain** what is indicated if the Working Capital Ratio is satisfactory, but the Quick Asset Ratio is unsatisfactory.

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17.12 THE SPEED OF LIQUIDITY

One of the central weaknesses with using either of the two liquidity indicators outlined above is that they identify *how much* current assets and current liabilities are, but not *when* they will involve a cash flow. That is, they give no indication about the *timing* of cash inflows and outflows that is crucial to an assessment of whether debts will be paid on time.

In fact, businesses can survive in spite of an unsatisfactory level of liquidity, if the speed of their trading cycle is fast enough. That is, if a business can sell its stock – 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, our assessment of liquidity must also consider the speed of the firm's:

- Stock Turnover (STO)
- Debtors Turnover (DTO)
- Creditors Turnover (CTO).

(These indicators were considered in detail in earlier chapters, but it is important to note here their significance for liquidity.)

STUDY TIP

The static nature of the Working Capital Ratio and Quick Asset Ratio is one of the reasons why the Cash Budget is crucial to an assessment of liquidity.

Stock Turnover

Stock Turnover (STO) calculates the average number of days taken to convert stock into sales.

Stock Turnover (STO) an efficiency indicator that measures the average number of days it takes for a business to convert its stock into sales

Stock Turnover formula

$$\text{Stock Turnover (STO)} = \frac{\text{Average Stock}}{\text{Cost of Goods Sold}} \times 365$$

Fast Stock Turnover – as measured by *low days* – means on average, stock is sold quickly. This will enhance the firm's ability to generate cash from the sale of stock, and assist its liquidity. *Slow* Stock Turnover (i.e. *a high number of days*) means the firm is less able to generate sales, and therefore less able to generate cash inflows (from Cash Sales and Receipts from Debtors) in time to meet debts as they fall due.

Debtors Turnover (DTO)

Debtors Turnover (DTO) is an important factor influencing a firm's liquidity because it measures the average number of days it takes to collect cash from debtors.

Debtors Turnover (DTO) an efficiency indicator that measures the average number of days it takes for a business to collect cash from its debtors

Debtors Turnover formula

$$\text{Debtors Turnover (DTO)} = \frac{\text{Average Debtors}}{\text{Credit Sales}} \times 365$$

Fast Debtors Turnover means it takes (on average) few days to collect cash from debtors. This will mean cash is collected quickly, and can then be used to meet debts as they fall due. However, *slow* Debtors Turnover will mean cash is unavailable to meet debts, creating problems for liquidity.

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Creditors Turnover (CTO) an efficiency indicator that measures the average number of days it takes for a business to pay its creditors

Creditors Turnover (CTO)

By contrast to Stock Turnover and Debtors Turnover – which measure the speed of cash *inflows* – **Creditors Turnover (CTO)** measures the speed of cash *outflows*. Specifically, it measures the average number of days taken to pay creditors.

Creditors Turnover formula

$$\textbf{Creditors Turnover (CTO)} = \frac{\textbf{Average Creditors}}{\textbf{Credit Purchases}} \times 365$$

If Creditors Turnover is too *slow*, then the business will miss out on potential discounts, and if it is well above the credit terms offered by the supplier, it could lose its credit facilities. Conversely, a Creditors Turnover that is too *fast* may mean the business does not have sufficient time to generate cash, and therefore not have cash available to meet other obligations.

Stock, Debtors and Creditors Turnover

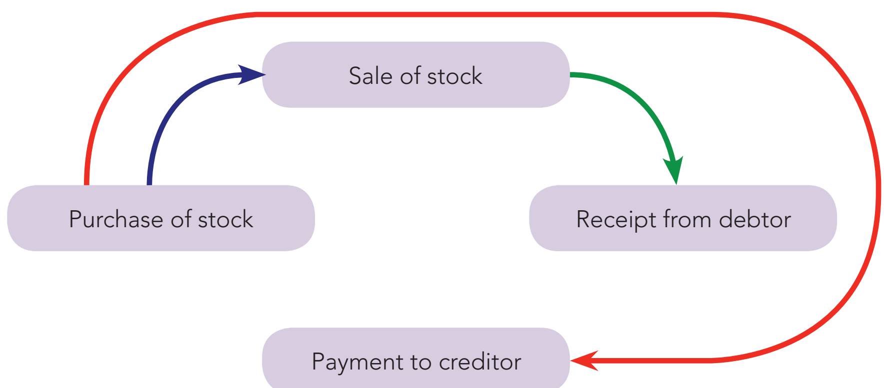
A firm's ability to pay its creditors will rely heavily on its ability to generate cash from its stock. This means Creditors Turnover is reliant on Stock Turnover and (if the business deals mainly on credit) Debtors Turnover. If Stock Turnover and/or Debtors Turnover are fast, cash will be available to pay creditors on time, and liquidity problems may be avoided.

Ideally, a firm will want its cash inflow – from STO and DTO – to be as fast as possible (i.e. the lowest number of days possible), whereas it will want to pay its creditors as slowly as possible (i.e. the highest number of days possible without exceeding credit terms).

The best circumstance for a trading business is to sell stock for cash and to buy stock on credit. This approach provides time for the business to sell its stock before paying their creditors, and should minimise liquidity problems.

Figure 17.11 represents the relationship between these elements of the cash cycle.

Figure 17.11 ***Cash cycle***



Ideally, the days taken for Stock Turnover and Debtors Turnover together (STO + DTO) should be less than the days taken for Creditors Turnover. This ensures the business has enough time to generate sales and collect cash before it must pay its creditors.

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REVIEW QUESTIONS 17.12

1. **Explain** how a firm with a high turnover may avoid liquidity problems despite an unsatisfactory Working Capital Ratio.
2. **State** what is measured by Stock Turnover (STO).
3. **Show** the formula to calculate Stock Turnover.
4. **State** what is measured by Debtors Turnover (DTO).
5. **Show** the formula to calculate Debtors Turnover.
6. **State** what is measured by Creditors Turnover (CTO).
7. **Show** the formula to calculate Creditors Turnover.
8. **Explain** the importance of Stock and Debtors Turnover, and Creditors Turnover, for liquidity.
9. **Explain** why it is advantageous for a trading firm to buy on credit, but sell on cash.

17.13 NON-FINANCIAL INFORMATION

Obviously the indicators detailed in this chapter are useful for assessing profitability and liquidity, but we need to be mindful that there are limits on the ability of this information to assist the owner in making financial decisions:

- the reports use *historical data* – they do not guarantee what will happen in the future
- many indicators rely on *averages*, and this may conceal details about individual items
- reports contain *incomplete information* as many items are not reported in the financial statements
- firms use *different accounting methods* which can undermine the *Comparability* of the reports (and indicators).

As a consequence, the owner should not rely just on the reports and indicators: non-financial information can be just as important in aiding decision-making.

Non-financial information

Non-financial information is a fairly broad term covering basically any information that is not expressed in dollars and cents, or reliant on dollars and cents for its calculation. It refers to information that cannot be found in the financial statements. 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:

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

The firm's relationship with its customers

This could be assessed by customer satisfaction surveys, the number of repeat sales, the number of sales returns, or the number of customer complaints.

The suitability of stock

This could be assessed by the number of sales returns, the number of purchase returns, or the number of customer complaints.

The firm's relationship with its employees

This could be assessed by performance appraisals, the number of days lost due to sick leave/industrial action, or the staff turnover/average length of employment.

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The state of the economy

This could be assessed by examining interest rates, the unemployment rate, the level of inflation or the number of competitors in the market.

REVIEW QUESTIONS 17.13

1 **State** three limitations of relying solely on the financial statements and financial indicators to evaluate performance.

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 stock
- the firm's relationship with its employees
- the state of the economy.

WHERE HAVE WE BEEN?

- Profitability is the ability of the business to earn profit, measured by comparing its profit against a base like sales, assets or Owner's Equity.
- Liquidity is the ability of the business to meet its short-term debts as they fall due.
- Tools available to assess performance include trends, variances, benchmarks and indicators.
- Profitability indicators include Return on Owner's Investment, Return on Assets, Asset Turnover, Net Profit Margin, and Gross Profit Margin.
- Liquidity indicators include Working Capital Ratio and Quick Asset Ratio.
- The Cash Budget predicts cash inflows and cash outflows for the coming year, allowing the owner to assess exactly whether the business will have enough liquid funds to meet its debts.
- If a business can sell its stock – and collect the cash from its customers – before that cash is needed, it may still be able to survive even with a very low Working Capital Ratio.
- Assessing performance using reports and indicators is limited by the use of historical data, averages, incomplete information and different accounting methods.
- Non-financial information refers to information which cannot be found in the financial statements.

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EXERCISES

EXERCISE 17.1
PROFITABILITY

WB page 282

Dean Simkin is the owner of two different lighting stores and last year the Vermont store earned $14 000 more profit than the Burwood store. Dean is thinking of selling the Burwood store because it is much less profitable.

Required

- **a** **Explain** the difference between profit and profitability.
- **b** **State** two bases that profit could be compared against in an assessment of profitability.
- **c** **Suggest** two reasons why Dean should **not** sell the Burwood store.

EXERCISE 17.2
RETURN ON OWNER'S INVESTMENT

WB page 283

Ceyda Sanli is the owner of Sandals and Saris, a beachwear shop in Apollo Bay. Ceyda has provided the following information relating to its performance.

	2016	2017
Owner's Equity (31 December)	$90 000	110 000
Net Profit		8 100

Before investing in this business, Ceyda had earned 6% p.a. on an investment in shares.

Required

- **a** **Calculate** the Return on Owner's Investment for Sandals and Saris for 2017.
- **b** Referring to your answer to part 'a', **explain** whether Ceyda should be satisfied with the firm's Return on Owner's Investment in 2017.
- **c** **State** one reason why a small business owner may be willing to accept a Return on Owner's Investment that is lower than the return on an alternative investment.
- **d** **State** two other benchmarks Ceyda could use to assess the adequacy of the Return on Owner's Investment.

EXERCISE 17.3
RETURN ON OWNER'S INVESTMENT

WB page 284

Michael Gowland is the owner of Country House Furniture, and has provided the following information relating to its performance over the past two years.

	2015	2016
Average Owner's Equity	$390 000	310 000
Net Profit	48 750	46 500

Required

- **a** **Calculate** the Return on Owner's Investment for Country House Furniture for 2015 and 2016.
- **b** **Explain** the cause(s) of the change in the Return on Owner's Investment from 2015 to 2016.
- **c** **Explain** one reason why Michael should be concerned about the firm's profitability in 2016.

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EXERCISE 17.4

RETURN ON OWNER'S INVESTMENT AND RETURN ON ASSETS

WB page 285

Ferdinand Photography and Cara's Cameras both sell cameras and photographic equipment. The following information relates to their trading performance for 2016.

	Ferdinand Photograph	Cara's Cameras
Net Profit	$28 000	$33 600
Average Owner's Equity	120 000	280 000
Average Total Assets	400 000	350 000
Return on Owner's Investment	28%	12%

Required

a **Calculate** the Return on Assets for each firm for 2016.

b **Explain** one reason why the owner of Ferdinand Photography would be pleased with her firm's profitability in 2016.

c **Explain** one reason why the owner of Ferdinand Photography would be disappointed with her firm's profitability in 2016.

d **Explain** why a firm's Return on Owner's Investment will always be greater than its Return on Assets.

EXERCISE 17.5

RETURN ON OWNER'S INVESTMENT AND RETURN ON ASSETS

WB page 286

G-Man and Chick Stuff are clothing boutiques in Armadale. The following information relates to their trading performance for 2015.

	G-Man	Chick stuff
Net Profit	$32 400	$32 400
Average Owner's Equity	180 000	80 000
Average Total Assets	240 000	240 000

Required

a **Calculate** the Return on Owner's Investment and Return on Assets for each business for 2015.

b **Identify** which business is the better investment. **Justify** your answer.

c **Calculate** the Debt Ratio for each business for 2015.

d **Discuss** the effects of a higher Debt Ratio.

EXERCISE 17.6

RETURN ON ASSETS AND ASSET TURNOVER

WB page 288

Zaheer Hussein owns The Game Golfer which sells golf gear and clothing, and has presented the following information relating to its performance for 2015 and 2016.

	2015	2016
Sales Revenue	$ 560 000	693 000
Net Profit	33 600	34 650
Average Total Assets	280 000	330 000
Return On Assets	12%	10.5%

Zaheer argues that higher Net Profit in 2016 is evidence of improved profitability.

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Required

- **a** **Calculate** Asset Turnover for The Game Golfer for 2015 and 2016.
- **b** **Explain** what is revealed by the change in Asset Turnover from 2015 to 2016.
- **c** Using the information provided, **explain** whether expense control has improved or worsened in 2016.
- **d** **Suggest** two strategies the owner could adopt to improve the Return on Assets without changing Asset Turnover.

EXERCISE 17.7
ASSET TURNOVER AND NET PROFIT MARGIN

WB page 289

Lowland Trailbikes has provided the following information relating to is performance for 2015.

	Lowland Trailbikes	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

- **a** **State** two reasons why the Return on Assets of Lowland Trailbikes is lower than the industry average.
- **b** **State** two benchmarks other than the industry average that could be used to assess the Return on Assets of Lowland Trailbikes.
- **c** **Suggest** two strategies Lowland Trailbikes could adopt to improve its Asset Turnover.
- **d** **Explain** why an improvement in expense control could still see total expenses increase.

EXERCISE 17.8
NET PROFIT MARGIN

WB page 290

Christou Clocks has provided the following information about its trading performance for 2015 and 2016.

	2015	2016
Sales	$ 140 000	154 000
Net Profit	7 000	9 900
Asset Turnover	1.6 times	1.4 times
Return on Assets	8%	9%

Required

- **a** Referring to the information above, **identify** one indicator that supports the claim that the firm's ability to earn revenue has worsened.
- **b** **Explain** one reason for the decrease in the firm's Asset Turnover.
- **c** **Calculate** the Net Profit Margin for 2015 and 2016.
- **b** **Identify** two factors that support the claim that expense control improved in 2016. **Justify** your answer.

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EXERCISE 17.9
GROSS PROFIT MARGIN

WB page 291

Up There Trophies sells trophies and medals to sporting clubs and has provided the following information for 2015.

	$
Sales Revenue	160 000
Gross Profit	72 000
Net Profit	88 000
Budgeted Gross Profit Margin	60%

Required

a **Calculate** the Gross Profit Margin for 2016.

b **State** two strategies the owner could adopt to improve the Gross Profit Margin without increasing the Asset Turnover.

c **Explain** how increasing selling prices could lead to an increase in the Gross Profit Margin but a decrease in Gross Profit.

d **State** two pieces of non-financial information the owner may want to see to assess the quality of his stock.

EXERCISE 17.10
VERTICAL ANALYSIS OF THE INCOME STATEMENT

WB page 292

Wheelie Hot Wheels sells mag wheels and performance tyres and has provided the following information for the years ended 30 June 2015 and 2016.

WHEELIE HOT WHEELS

Income Statement for the year ended 30 June:

	2015	**%**	**2016**	**%**
Sales Revenue	$ 180 000	100.0	$ 150 000	100.0
Less Cost Of Goods Sold	77 940	43.3	63 150	42.1
Gross Profit	**102 060**	**56.7**	**86 850**	**57.9**
Less Stock Loss	1 800	1.0	1 800	1.2
Adjusted Gross Profit	**100 260**	**55.7**	**85 050**	**56.7**
Less Other Expenses				
Wages	48 420	26.9	39 300	26.2
Administration Expenses	31 320	17.4	26 100	17.4
Advertising	5 580	3.1	3 450	2.3
Depreciation – Fittings	4 500	2.5	4 500	3.0
Net Profit	**$ 10 440**	**5.8**	**$ 11 700**	**7.8**

Required

a Referring to the information provided, **suggest** two reasons for the decrease in Sales Revenue in 2016.

b **State** whether overall expense control has improved or worsened in 2016. **Justify** your answer.

c **Suggest** two possible reasons for the increase in the Gross Profit Margin in 2016.

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d **State** one reason why the owner should be concerned that stock loss is $1 800 in 2015 and 2016.
e **Explain** why there has been no change in 'Depreciation – Fittings' in dollar terms, but an increase in percentage terms.
f **State** two pieces of non-financial information the owner could use to assess the firm's relationship with its staff.

EXERCISE 17.11
LIQUIDITY

WB page 293

As at 1 July 2016, Harrington Hardware had $6 800 cash in the bank. By 30 June 2017, this had fallen to $1 200, leading the owner to comment that liquidity must have fallen.

Required

a **Explain** why the owner's comment about the firm's liquidity may be incorrect.
b **State** two indicators that can be used to assess the level of liquidity.

EXERCISE 17.12
WORKING CAPITAL RATIO

WB page 294

Belle Formal Wear has provided the following information from its Balance Sheet as at 30 June 2015.

Current assets	$67 500
Current liabilities	90 000

Required

a **Calculate** the Working Capital Ratio for Belle Formal Wear as at 30 June 2015.
b Referring to your answer to part 'b', **state** whether the Working Capital Ratio is satisfactory or unsatisfactory. **Justify** your answer.
c **Suggest** two actions the owner may need to take to ensure the business is able to meet its short-term debts as they fall due.

EXERCISE 17.13
WORKING CAPITAL RATIO

WB page 295

Yackandandah Antiquities has provided the following information.

	2015	2016
Working Capital Ratio	2.3 : 1	4.5 : 1

Required

a **State** what is measured by the Working Capital Ratio.
b **Explain** what this trend indicates about the liquidity of Yackandandah Antiquities.
c **Explain** one reason why the owner might be concerned about the Working Capital Ratio for 2016.
d **Explain** how the Cash Budget could be used to assess liquidity.

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EXERCISE 17.14

WB page 296

WORKING CAPITAL RATIO AND QUICK ASSET RATIO

Stoneham Sunglasses has provided the following extract from its Balance Sheet.

STONEHAM SUNGLASSES

Balance Sheet (extract) as at 31 March 2016

Current Assets		**Current Liabilities**	
Bank	3 000	Loan	7 200
Stock	27 000	Creditors	19 800
Debtors	18 000	Accrued Electricity	600
Prepaid Rent Expense	6 000	GST Payable	2 400
Total Current Assets	**$ 54 000**	**Total Current Liabilities**	**$ 30 000**

The Working Capital Ratio of Stoneham Sunglasses as at 28 February 2016 was 2.5 : 1.

Required

- **a** **Calculate** the Working Capital Ratio for Stoneham Sunglasses as at 31 March 2016.
- **b** **Calculate** the Quick Asset Ratio of Stoneham Sunglasses as at 31 March 2016.
- **c** Referring to your answer to part 'b', **state** whether the Quick Asset Ratio is satisfactory or unsatisfactory. **Justify** your answer.
- **d** **Explain** why stock is excluded from the calculation of Quick assets.
- **e** **Explain** how the efficiency of this business in managing its current assets will affect its liquidity.

EXERCISE 17.15

WB page 297

WORKING CAPITAL RATIO AND QUICK ASSET RATIO

Velocity Skates has provided the following extract from its Balance Sheet.

VELOCITY SKATES

Balance Sheet (extract) as at 30 June 2015

Current Assets		**Current Liabilities**	
Stock	13 700	Bank Overdraft	5 000
Debtors	43 000	Creditors	35 000
Prepaid Registration	300	Accrued Wages	3 400
GST Receivable	1 500	Mortgage – nab	21 600
Total Current Assets	**$ 58 500**	**Total Current Liabilities**	**$ 65 000**

The bank overdraft has a limit of $15 000.

Required

- **a** **Explain** how GST Receivable will assist liquidity.
- **b** **Calculate** the Quick Asset Ratio of Velocity Skates as at 30 June 2015.
- **c** Referring to your answer to part 'b', **state** whether the Quick Asset Ratio is satisfactory or unsatisfactory. **Justify** your answer.

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d **Explain** why the bank overdraft is excluded from the calculation of Quick assets.
e **State** two reasons why this firm may not have liquidity problems despite what is shown by its Quick Asset Ratio.

EXERCISE 17.16

WB page 298

WORKING CAPITAL RATIO AND QUICK ASSET RATIO

Atlas Weights has provided the following information.

	2015	2016
Working Capital Ratio	1.8 : 1	5.2 : 1
Quick Asset Ratio	1.3 : 1	0.6 : 1

Required

a **Explain** how it is possible for the Quick Asset Ratio to be less than 1:1 when the Working Capital Ratio is greater than 1:1.
b **Explain** one negative consequence if the Working Capital Ratio is too high.
c **Discuss** whether Atlas Weights will be able to meet its debts.

EXERCISE 17.17

WB page 299

STOCK TURNOVER

Bairnsdale Bricks sells bricks and pavers and has provided the following information for 2016.

Cost of Goods Sold	$ 1 095 000
Average Stock	120 000
Budgeted Stock Turnover	35 days

Required

a **State** what is measured by Stock Turnover.
b **Calculate** Stock Turnover for Bairnsdale Bricks for 2016.
c Referring to your answer to part ‘b’, **explain** why the owner would consider this Stock Turnover to be unsatisfactory.
d **Explain** how slow Stock Turnover can have negative consequences for:

- profitability
- liquidity.

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EXERCISE 17.18
DEBTORS TURNOVER

WB page 300

Bubble On sells soaps, bath bombs and other toiletries, and has provided the following information relating to its activities for 2015.

Cash Sales	$ 10 000
Credit Sales	113 150
Average Debtors	12 400
Credit terms offered to customers	30 days
Stock Turnover	21 days

Required

- **a** **State** what is measured by Debtors Turnover.
- **b** **Calculate** Debtors Turnover for Bubble On for 2015.
- **c** Referring to your answer to part 'b', **state** whether Debtors Turnover is satisfactory or unsatisfactory. **Justify** your answer.
- **d** **Explain** why Bubble On may have liquidity problems in 2016.
- **e** **State** two other pieces of information that may be useful in an assessment of the liquidity of Bubble On.

EXERCISE 17.19
CREDITORS TURNOVER

WB page 301

Dewey Copiers sells photocopiers and fax machines and has provided the following information for the year ended 30 June 2016.

Credit Purchases	$ 228 125
Average Creditors	30 000
Credit terms offered by suppliers	60 days
Cash Sales	$ 160 000
Budgeted Sales Revenue	90 000

Creditors Turnover was 56 days in the previous financial year.

Required

- **a** **State** what is measured by Creditors Turnover.
- **b** **Calculate** Creditors Turnover for Dewey Copiers for the year ended 30 June 2016.
- **c** Referring to your answer to part 'b', **explain** why this Creditors Turnover may present problems for liquidity.
- **d** **State** two negative consequences of exceeding the credit terms offered by suppliers.

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EXERCISE 17.20
ASSESSING PERFORMANCE

page 302

Bags of Bags sells luggage and other bags, and has provided the following information relating to its activities for 2016 and 2017.

	2016	**2017**
Return on Owner's Investment	24%	28%
Return on Assets	16%	15%
Asset Turnover	0.75 times	1.5 times
Net Profit Margin	12%	10%
Stock Turnover	41 Days	44 Days
Debtors Turnover	35 Days	27 Days
Creditors Turnover	63 days	56 days
Credit terms offered to customers		30 days
Credit terms offered by suppliers		60 days
Stock Turnover – industry average		25 days

Required

a **Explain** how it is possible that the firm's Return on Owner's Investment increased whilst its Return on Assets decreased.

b **Identify** one indicator that suggests the firm's ability to earn revenue improved in 2017.

c **Identify** two factors that suggest the firm's expense control worsened in 2017.

d **Explain** why a trading firm should buy its stock on credit.

e **Suggest** one reason why the Creditors Turnover has improved in 2017. **Justify** your answer.

f Referring to one other liquidity indicator, **explain** how this business could avoid liquidity problems without raising further external finance in 2017.

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Where are we headed?

After completing this chapter, you should be able to:

- **explain** the factors behind the growth in the use of computers in small business
- **explain** different software products and their application in small business
- **explain** the role of a Chart of Accounts
- **identify** and **explain** the costs and benefits of operating a computerised accounting system.

CHAPTER 18

ICT IN ACCOUNTING

KEY TERMS

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

- Chart of Accounts.

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18.1 COMPUTERISED ACCOUNTING SYSTEMS

Prior to advances in technology, accounting records were maintained only on a manual basis, with the bookkeeper (or possibly the owner) required to complete a manual source document for each sale or receipt, and then spend the evenings or weekends writing the transactions of the day or week in special journals, stock cards, and debtor and creditor records. This obviously took some time, time that would otherwise have been spent operating the business. Consequently, completing the accounting records was sometimes seen as an impediment to business, rather than a way of making it more profitable.

However, the development of computerised accounting systems has revolutionised the way small businesses keep their accounting records. A computerised accounting system involves the use of computer hardware and software to perform the recording and reporting functions that would otherwise have been done manually. This has allowed small business owners to streamline their accounting processes, thus leaving them more time to work on their core business.

There are many factors that have led to the widespread use and adoption of computerised accounting systems over the last few years:

Access to hardware

The availability of a range of high powered and relatively low cost computers has made the use of a computerised accounting system much more affordable for small businesses. A basic desktop system or laptop can be purchased for under $1 000.

User-friendly software

Early accounting software required not only IT skills, but also detailed accounting knowledge. By contrast, contemporary accounting software can be operated with only a basic understanding of the accounting process, with extensive help menus and even online resources to assist users in their use of that software.

Increasing legal requirements

Especially since the introduction of the Goods and Services Tax (GST) in 2000, small businesses have been under increasing financial and legal requirements from the Australian Tax Office (ATO), particularly regarding GST obligations. The GST has made reporting to the ATO a monthly or at least quarterly event, with registered businesses required by law to present a regular Business Activity Statement (BAS). In addition, records must be kept for PAYG tax, WorkSafe and superannuation. The quantity and complexity of accounting information required goes beyond the simple capabilities of manual recording.

The growth of e-commerce

The growth of the internet has created new methods of communicating with both suppliers and customers, current and potential. E-commerce is changing not only the way businesses market their goods and services, but also the nature of those goods and services, and the way they are delivered. Proficiency with computers is obviously essential in this process.

Computers have become so common in the operation of small businesses that it would now be unusual to find any but the smallest of businesses using a manual system.

REVIEW QUESTIONS 18.1

1 **Explain** what is involved in a computerised accounting system.
2 **Explain** the factors behind the growth in the use of computers by small businesses.

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18.2 ICT: TYPES AND APPLICATIONS

As stated earlier, the recording and reporting requirements of the GST is probably one of the main factors that spurred the adoption of dedicated accounting software by small businesses. However, the software used by small businesses is not limited to accounting packages, with ICT used in a variety of forms.

Spreadsheets

A spreadsheet is essentially a table or grid, with each cell in the grid capable of storing data, or performing some sort of function (like a calculation). Because of its generalist nature, a spreadsheet can be used for almost anything from a simple cash journal, to reports, or even a record of customers. By using formulae to make calculations, spreadsheets can be used to assess any number of what-if situations, with one or more variable being changed at a time. For this reason, they are very useful in budgeting.

Word processors

Obviously word-processing software is essential for business correspondence, allowing business letters and marketing material to be presented in a professional manner, and then stored for easy reference (and adaption). However, a word processor is more than just a fancy typewriter! In conjunction with a customer listing, mail merge functions can be used so that even a mass marketing campaign can be personalised and tailored to the demands and interests of each customer.

Databases

Databases are essential tools for storing, sorting and retrieving information about customers, suppliers, employees, and stock items or even maintenance logs or accident reports.

Presentation software

The list of general applications which can be used to make presentations to customers, financiers or investors, or employees (for training purposes) is almost limitless, beginning with something like PowerPoint® and incorporating sounds, pictures and graphics captured and generated using ICT.

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Web software

The growth in e-commerce is making software for web design increasingly important, although small businesses may see this as an area that may be better served by sub-contracting experts in the field. This software has allowed the creation of many small businesses that only operate and sell goods online. It even has created business opportunities for companies to develop software to handle payments online, in the form of cash transfers or credit card transactions. An example of such an organisation is PayPal, which you definitely would have seen if you like Ebay!

The strength of general applications like these is that they are not designed purely for accounting purposes, making them flexible and adaptable to the needs of the owner. However, as a consequence they are unable to perform some of the specialised accounting functions that most small businesses need. For this reason, a dedicated accounting package – incorporating a computerised accounting system – might be necessary.

Dedicated accounting packages

Software packages like QuickBooks®, Mind Your Own Business (MYOB)®, Cashflow Manager®, and Attache® are designed specifically for accounting purposes, incorporating a version of the accounting process. Most allow the owner/bookkeeper to enter data in source documents, which can then be printed and given to customers. Once the data is entered, the accounting records are updated automatically, and reports can be generated easily. Stock control systems that incorporate bar codes mean that once stock is scanned, the stock cards are automatically updated. Links can be established between the business and its accountant, and information can be generated quickly, accurately, and efficiently. A variety of analysis tools also allow the owner to assess and evaluate the firm's performance.

Packages like these have made it much easier to maintain the records necessary to satisfy government requirements for items such as GST, PAYG, and superannuation without spending great amounts of time on bookkeeping, and with very little accounting knowledge required.

Custom-built software

In larger businesses, a tailor-made accounting system might be considered as an option. This would probably be more expensive; however, it would ensure that the accounting system was designed specifically for the business and its needs. For instance, accounting software can be integrated with a cash register system so that sales documents can be generated immediately and stock levels adjusted accordingly.

REVIEW QUESTIONS 18.2

1. **Explain** how each type of software could be applied in a small business situation.
2. **Explain** the benefits of adopting a dedicated accounting package.

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18.3 CHART OF ACCOUNTS

A number of the dedicated accounting packages referred to earlier summarise transactions using accounting records called *ledger accounts*. A ledger account is an accounting record that summarises all transactions affecting a particular item such as Bank, Stock, Creditors, Vehicles or Capital. Every item that will be reported in the financial statements will have its own ledger account, meaning that a small business could have many ledger accounts to manage, and even with a computerised accounting system, locating one ledger account amongst hundreds can be time consuming. Further, if some of the ledger accounts have similar titles (like stationery, stock of stationery, office expenses, or administration expenses), it may be difficult to identify which account should be used.

To address these issues, a business can use a **Chart of Accounts** to organise its ledger accounts. A chart of accounts is an index of all the accounts, which identifies and classifies each individual ledger account by allocating to it an account number or code. Each account number classifies the item as an Asset, Liability, Owner's Equity, Revenue or Expense, and as current or non-current.

Chart of Accounts
an index to the ledger that identifies and classifies each individual ledger account using an account number or code.

For example, a simple chart of accounts might number all assets from 100 to 199 (with 100 to 149 for current assets, and 150 to 199 for non-current assets), all liabilities from 200 to 299 (current liabilities 200 to 249; non-current liabilities 250 to 299), Owner's Equity accounts (including Capital, Drawings and Profit or loss) from 300 to 399, revenues in the 400s and expenses in the 500s. Therefore an asset like Stock may be numbered 120, whereas an expense like Cost of Sales might be numbered 500.

Applying this particular numbering system would produce the Chart of Accounts in Figure 18.1.

Figure 18.1 ***Chart of Accounts***

Assets	**Liabilities**	**Owner's Equity**	**Revenue**	**Expenses**
100 – Bank	205 – Accrued wages	300 – Capital	400 – Sales	500 – Cost of Sales
110 – Debtors	210 – Creditors	310 – Profit or loss	410 – Stock gain	510 – Stock loss
120 – Stock	215 – GST	320 – Drawings	415 – Interest	520 – Wages
125 – Prepaid rent	250 – Loan			535 – Advertising
150 – Equipment				540 – Rent
160 – Vehicles				545 – Administration expense

It should be noted that this is just one suggestion for a chart of accounts, and many other types exist using different numbers, letters, and alpha-numeric combinations. All of these are acceptable as long as the system is consistent, flexible (so that new items or accounts can be accommodated), and clear about the distinction between classifications.

The benefits of a chart of accounts system are thus:

- *Accounts can be located easily* by reference to their number: the name of the account does not have to be entered, just its account number.
- The *preparation of reports is made easier* as the Chart of Accounts classifies each account as an Asset, Liability, Owner's Equity, Revenue or Expense item.
- The *accuracy of data entry is improved* as there are two criteria by which to identify the correct account.

STUDY TIP

Ledger accounts – completed manually – are a key component of Units 3 and 4 VCE Accounting.

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REVIEW QUESTIONS 18.3

1 **Explain** the role of a Chart of Accounts.

2 **Explain** the benefits of using a Chart of Accounts.

18.4 COSTS AND BENEFITS OF COMPUTERISED ACCOUNTING SYSTEMS

As with most business decisions, the question of whether to adopt a computerised accounting system or not must be based on a cost versus benefit analysis. Once the decision is made to use a computerised system the same approach would then be applied to determine which type of system to use.

Benefits

Greater efficiency

Once the system is established, there are a number of accounting processes that can be carried out automatically. This can range from the automatic updating of records once source documents are created, to the generation of reports (including the BAS).

Greater accuracy

Using a computer ensures mathematical accuracy and (as long as all data is entered correctly) will produce reports that are accurate and include all relevant information.

Timely information for decision-making

Because financial reports can be generated almost instantaneously, computerised systems are able to provide information on demand regarding the level of stock on hand, the balance owed by an individual debtor, or when payments are due to creditors. In this way, the software aids accounting in its role of providing information to aid decision-making.

Improved storage

Since source documents are generated electronically, they can also be stored electronically. Some packages allow for data to be backed up online. (Obviously documents can be printed if required, and would be provided as hard copies for customers and suppliers.)

Faster communication of information

Many software packages can use the internet to communicate information between various parties. For example, software updates and changes in small business regulations can be communicated directly to the owner as they occur. Information can be exchanged electronically between the business and its customers, suppliers, and accountant, and even the ATO (for the electronic submission of their BAS). In some sophisticated stock management systems, orders can be sent to suppliers automatically (by email) once stock levels reach a certain minimum.

Costs

Hardware

Even though the costs of computers are falling, at the time of writing, a basic computer would still cost around $1 000. If other hardware, like bar code scanners or a dedicated phone line for an internet connection, is required, then this cost must also be considered.

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Software

Basic accounting packages start at around $100, but can increase to around $1 000 for complex multi-user packages. If the business requires software written specifically for the business, the cost could be thousands of dollars.

Training

Many of the more prominent accounting packages offer tutorials and online assistance, and some also run specialist courses to train staff, or the owner, in the operation of the system, but not all of these are free.

Time

Although using a computerised accounting system should ultimately save time, the establishment of the system can take time away from the firm's core activity of making sales. Like all business decisions, it is a matter for the owner/manager to determine what would be most beneficial for the business. However, considering the decreasing costs and the increasing legal requirements it is unsurprising that more and more businesses are choosing to use computerised accounting systems.

REVIEW QUESTIONS 18.4

1 **List** the benefits of computerised accounting systems.
2 **List** the costs of computerised accounting systems.

WHERE HAVE WE BEEN?

- A computerised accounting system involves the use of computer hardware and software to perform the recording and reporting functions that would otherwise have been done manually.
- Software used in small businesses includes general applications (such as spreadsheets, word processors, databases, presentation software and web software) and those created specifically for accounting purposes such as computerised accounting systems.
- Dedicated accounting packages are designed specifically for accounting purposes, incorporating a version of the accounting process. Once the data is entered, the accounting records are updated automatically, and reports can be generated easily.
- The Chart of Accounts is an index to the ledger that identifies and classifies each individual ledger account using an account number or code.

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EXERCISES

EXERCISE 18.1
ICT FOR SMALL BUSINESS

WB page 304

In each of the following situations, **state** which type of software would be most suitable, and **justify** your answer:

- Superior Tune Motors wants to keep a record of the work it has performed for each of its customers.
- Vanderlay Industries is preparing a cash budget, but the owner is unsure about how much cash drawings she will be able to take.
- William's Workwear is expanding, and wants to inform its customers about its new product range. However, the product range is massive, and customers are unlikely to be interested in the every product in the range.
- Musical Inspiration has just registered for GST, PAYG and FBT.
- Ferrugia Paints has organised a stand at a trade fair for businesses operating in the housing market.
- Denholm Surf Clothing has just signed a new distribution deal, so it can now make sales to customers in South Africa.

EXERCISE 18.2
CHART OF ACCOUNTS

WB page 305

Crystal's Clothing has provided the following list of accounts:

Capital – Crystal	Creditors	Interest expense
Cash at bank	Debtors	Office furniture
Sales	Drawings	Rent
Cost of Sales	Electricity	Stock
Telephone expense	Fixtures and fittings	GST Payable
Prepaid rent	Stock Loss	Stock gain
Wages	Premises	Accrued wages

Required

a **Establish** a Chart of Accounts for Crystal's Clothing.

b **Explain** how a Chart of Accounts could assist in the preparation of reports.

EXERCISE 18.3
CHART OF ACCOUNTS

WB page 306

Max's Smart Locks has provided the following list of accounts:

100: Bank	110: Debtors	410: Mortage
130: Prepaid rent	710: Stock Loss	610: Stock gain
500: Capital – Max	310: Creditors	620: Interest
600: Sales	510: Drawings	730: Rent
700: Cost of Sales	740: Electricity	120: Stock
720: Wages	220: Premises	330: Accrued electricity
750: Advertising	200: Office Equipment	320: GST Payable

Required

a **Explain** why GST payable has been given account number 320.

b **Explain** whether Interest is a revenue or an expense account.

c **Determine** an account number for the following accounts:
- Stock of stationery
- Accrued wages

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- Depreciation of Office Equipment.

d **Explain** how a chart of accounts could assist in the recording process.

EXERCISE 18.4
ACCOUNTING SOFTWARE

WB page 307

The following data could be recorded using a number of different software applications, including dedicated accounting software.

Jason Braun used to be a cabinetmaker, but in 2016 decided to start his own furniture retailing business called Frankston Outfitters. Jason employs one assistant, Tim Vissello, who helps out with both sales and administration.

The business sells two items, bookcases and desks, and as at 31 October 2016, the following stock was on hand:

10 Bookcases @ $100 each	$ 1 000
15 Desks @ $200 each	3 000

Bookcases are bought from Pine Products and paid for in cash, but desks are bought on credit from two suppliers. As at 31 October 2016, Frankston Outfitters had two creditors:

BBs Desks	$ 300
A & T Furnishings	600

Sales are made on both cash and credit terms, and as at 31 October 2016, Frankston Outfitters had two debtors:

Yarra City Council	$ 1 000
A–Z Services	800

Other account balances as at 31 October 2016 were:

Bank	$ 9 000
Fixtures and fittings (2 years old)	30 000
Less Accumulated depreciation	2 400
Loan – nab	10 000
Capital – Braun	31 500

Required

a Using the information above, **establish** a file for Frankston Outfitters using a computerised accounting system.

b **Establish** a Chart of Accounts for Frankston Outfitters, and enter the account numbers.

The following transactions occurred during November 2016:

Nov.	1	Paid $3 600 plus $360 GST to Rays First National for rent (Chq. 100)
	2	Cash sale of 5 desks for $440 (including $40 GST) each (Rec. 50)
	3	Purchased 6 book cases from Pine Products for $100 plus $10 GST each (Chq.101)
	4	Sale of 5 bookcases to CPX Accountants for $220 (including $20 GST) each (Inv. 10)
	5	Received $1 000 from Yarra City Council in settlement of account from October 2016 (Rec. 51)
	6	Paid A&T Furnishings $600, being amount owing on account (Chq. 102)
	7	Purchased two desks from BB's Desks for $200 plus $20 GST each (Inv. B90)

8	Purchased office supplies from Officeworks for $220 including GST (Chq. 103)
9	Cash sale of four bookcases for $220 (including $20 GST) each (Rec. 52)
10	Received $800 from A–Z Services for settlement of account (Rec. 53)
11	Paid Tim Visello two weeks' wages: $800 (Chq. 104)
13	Purchased six desks for $200 plus $20 GST each from A&T Furnishings (Inv. A3)
15	Paid BB's Desks amount full amount owing (Chq. 105)
17	Sold 10 desks to Yarra City Council for $440 (including $40 GST) each (Inv. 11)
19	Purchased 8 bookcases from Pine Products for $100 plus $10 GST each (Chq.106)
21	Jason withdrew $500 for personal use (Chq. 107)
23	Sold 10 bookcases to A–Z Services for an invoice total of $2 200 including $200 GST (Inv. 12)
25	Purchased five desks from A&T Furnishings for $200 plus $20 GST each (Inv. A7)
27	Purchased additional fixtures and fittings from Guest Bros. costing $3 000 plus GST (Chq. 109)
30	Jason withdrew $500 for personal use (Chq. 110)

Additional information:

- A physical stocktake on 30 November 2016 showed 4 bookcases and 11 desks on hand.

Required

c **Record** the transactions for November 2016.

d **Prepare** the following accounting reports for Frankston Outfitters:
- Trial Balance as at 30 November 2016
- Income Statement for November 2016
- Balance Sheet as at 30 November 2016.

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GLOSSARY

Accounting [p. 4]
the collection, recording and reporting of financial information to assist business owners in decision-making

Accounting Principles [p. 7]
the generally accepted rules which govern the way accounting information is recorded

Accrual Accounting [p. 277, 296]
determining profit by recognising revenues as earned when the good/service is provided, and expenses as incurred when the benefit is consumed

Accrued expense [p. 300]
an expense that has been incurred but not yet paid

Accumulated depreciation [p. 305]
the value of a non-current asset that has been consumed over its life so far

Adjusted Gross Profit [p. 228]
Gross Profit less Stock loss (or plus Stock gain)

Advice [p. 7]
the provision to the owner of a range of options appropriate to their aims/objectives, and recommendations as to their suitability

Analysing [p. 338]
examining the financial reports in detail to identify changes or differences in performance

Asset [p. 16]
a resource controlled by the entity (as a result of past events), from which future economic benefits are expected

Asset Turnover (ATO) [p. 346]
an efficiency indicator that assesses how productively a business has used its assets to earn revenue

Balance day adjustment [p. 296]
a change made to a revenue or expense on balance day to show revenues earned and expenses incurred in a particular reporting period

Balance Sheet [p. 18]
an accounting report that details a firm's financial position at a particular point in time by reporting its assets, liabilities and owner's equity

Bank overdraft [p. 55]
an external source of finance provided by a bank that allows the account holder to withdraw more than their current account balance

Bank Reconciliation [p. 113]
the process of verifying that the entries in a firm's cash journals are the same as those recorded by the firm's bank on the bank statement

Bank Reconciliation Statement [p. 114]
an accounting report which attempts to explain the difference between the bank balance determined in the firm's records and the bank balance reported on the bank statement

Bank Statement [p. 112]
a record kept by the bank of all transactions affecting a particular bank account

Benchmark [p. 340]
an acceptable standard against which the firm's actual performance can be assessed

Break-even point [p. 190]
the level of sales where total revenue equals total expenses and the business makes neither a profit nor a loss

Budgeted Income Statement [p. 167]
an accounting report which predicts revenues earned and expenses incurred, and thus the expected Net Profit, for the budget period

Budgeting [p. 160]
the process of predicting/estimating the financial consequences of future events

Capital contribution [p. 54]
an internal source of finance consisting of cash (or other assets) contributed to the business from the personal assets of the owner

Capital Gain [p. 37]
a return generated from an investment in the form of an increase in the value of an asset that can therefore be sold for more than its purchase cost

Capital Gains Tax [p. 37]
a form of taxation charged when a gain is made on the sale of an asset

Capital Loss [p. 38]
the loss incurred when an asset is sold at a price less than its initial price

Carrying value [p. 305]
the value of a non-current asset that is yet to be consumed/allocated as an expense, plus any residual value

Cash Budget [p. 162, 352]
an accounting report that predicts future cash receipts and payments, determines the expected cash surplus or deficit, and thus estimates the cash balance at the end of the budget period

Cash Budget Variance Report [p. 170]
an accounting report which compares actual and budgeted cash flows, highlighting variances so that problems can be identified and corrective action taken

Cash control [p. 111]
the procedures and strategies used to protect the firm's cash

Cash deficit [p. 94]
an excess of cash payments over cash receipts, leading to a decrease in a positive bank balance or an increase in a bank overdraft

Cash Flow Statement [p. 323]
an accounting report that reports all cash flows during a reporting period, classified as Operating, Investing and Financing activities

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Cash Payments Journal [p. 91]
an accounting record which summarises all cash paid to other entities during a particular reporting period

Cash receipt (1) [p. 73]
a source document used to verify cash received

Cash receipt (2) [p. 73]
a transaction that occurs when cash is received from another entity

Cash Receipts Journal [p. 88]
an accounting record which classifies and summarises all cash received from other entities during a particular reporting period

Cash surplus [p. 94]
an excess of cash receipts over cash payments, leading to an increase in a positive bank balance or decrease in a bank overdraft

Chart of Accounts [p. 375]
an index to the ledger that identifies and classifies each individual ledger account using an account number or code

Cheque butt [p. 78]
a source document used to verify cash payments

Classifying/classification [p. 19]
grouping together items that have some common characteristic

Comparability [p. 10]
reports should be able to be compared over time through the use of consistent accounting procedures

Competitors' prices [p. 187]
prices charged by businesses competing in the same market

Conservatism principle [p. 9]
losses should be recorded when probable, but gains only when certain so that liabilities and expenses are not understated and assets and revenues are not overstated

Consistency principle [p. 9]
the business should use the same accounting methods to allow for the comparison of reports from one period to the next

Contribution margin [p. 191]
the Gross Profit from each sale that goes towards covering fixed expenses and contributing to Net Profit; calculated by deducting variable costs from selling price

Cost of Goods Sold [p. 228]
a heading used in the Income Statement for all costs incurred to bring stock into a location and condition ready for sale

Cost of Sales [p. 207]
the expense incurred when stock flows out of the business due to a sale

Cost price [p. 41]
the original purchase price of stock

Cost-volume-profit analysis [p. 190]
an analysis tool that allows a business to determine a selling price or volume of sales that will let them achieve a specific profit goal

Credit purchase [p. 245]
a transaction that involves the acquisition of stock (or other goods) from a supplier who does not require payment until a later date

Credit sale [p. 252]
a transaction that involves the provision of goods to a customer who is not required to pay until a later date

Credit transaction [p. 242]
when goods are exchanged but the cash relating to the stock is not exchanged until some later date, meaning the customer owes a debt to the seller

Creditor [p. 55, 244]
a supplier who is owed a debt by the business for goods or services purchased from them on credit

Creditors record [p. 250]
a subsidiary accounting record which records each individual transaction with each individual creditor, and shows the balance owing to that creditor at any point in time

Creditors schedule [p. 251]
a listing of the name and balance of each creditor's record

Creditors Turnover (CTO) [p. 283, 360]
an efficiency indicator that measures the average number of days it takes for a business to pay its creditors

Current asset [p. 20]
a resource controlled by the entity (as a result of a past event), from which a future economic benefit is expected for 12 months or less

Current liability [p. 20]
a present obligation of the entity (arising from past events), the settlement of which is expected to result in an outflow of economic benefits in the next 12 months

Debt Ratio [p. 24, 57, 343]
measures the proportion of the firm's assets that are funded by external sources

Debtor [p. 244]
a customer who owes a debt to the business for goods or services sold to them on credit

Debtors record [p. 257]
a subsidiary accounting record which details each individual transaction with each individual debtor, and shows the balance owed by that debtor at any point in time

Debtors Schedule [p. 258]
a listing of the name and balance of each debtor's record

Debtors Turnover (DTO) [p. 281, 357]
an efficiency indicator that measures the average number of days it takes for a business to collect cash from its debtors

Deposit not yet credited [p. 114]
a cash deposit that is yet to appear on the bank statement (usually due to the timing of its preparation)

Depreciable asset [p. 302]
a non-current asset which has a finite life, and thus must be depreciated over that life

Depreciable value [p. 304]
the total value of the asset that will be consumed by the current entity, and so must be allocated over its useful life

Depreciation [p. 302]
the allocation of the cost of a non-current asset over its useful life

Depreciation expense [p. 302]
that part of the cost of a non-current asset which has been consumed in the current reporting period

Direct credit [p. 114]
a deposit of cash directly into a bank account

Direct debit [p. 114]
a withdrawal of cash directly from a bank account

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Dishonoured cheque [p. 114]
a cheque that cannot be honoured/exchanged for cash because there are insufficient funds in the account of the drawer to allow the payment to be made

Dividend [p. 38]
a share of the profit earned by a company that is distributed to shareholders

Drawee [p. 77]
the financial institution or bank of the drawer

Drawer [p. 77]
the entity writing the cheque

Efficiency [p. 338]
the ability of the business to manage its assets and liabilities

Entity principle [p. 7]
the business is separate from the owner and other entities, and its records should be kept on this basis

Equities [p. 18]
claims on the assets of the firm, consisting of both liabilities and owner's equity

Expense [p. 143]
an outflow or consumption of an economic benefit (or reduction in an inflow) in the form of a decrease in assets (or increase in liabilities) that reduces owner's equity (except for Drawings)

Expense control [p. 347]
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

External finance [p. 55]
funds generated from sources outside the business

Financial data [p. 5]
raw facts and figures upon which financial information is based

Financial indicator [p. 340]
a measure that expresses business performance in terms of the relationship between two different elements of that performance

Financial information [p. 5]
financial data which has been sorted, classified and summarised into a more usable and understandable form

Financing activities [p. 324]
cash flows related to changes in the financial structure of the firm

Finite life [p. 302]
the limited period of time (usually measured in years) for which a non-current asset will exist

First In First Out (FIFO) [p. 212]
the assumption that the stock that is purchased first will be sold first

Fixed costs [p. 190]
costs that do not vary with the level of activity

Franchise [p. 46]
an arrangement under which one party (the franchisor) grants to another party (the franchisee) certain rights, including the use of the franchise name and business practices

Franchisee [p. 46]
the entity that purchases the right to operate under the franchise agreement

Franchisor [p. 46]
the entity that holds (and sells to the franchisee) the rights to operate under the franchise agreement

Franking credit [p. 38]
Dividend income received by the investor on which the company has already paid tax

Gearing [p. 343]
the extent to which the business relies on borrowed funds to finance the purchase of its assets

Going Concern principle [p. 8]
the life of the business is assumed to be continuous, and its records are kept on that basis

Goodwill [p. 46]
an intangible asset representing the value of the firm's reputation, clientele, viability and future growth prospects

Gross profit [p. 208]
the profit earned purely from the purchase and sale of stock, measured by deducting Cost of Sales from Sales revenue

Gross Profit Margin (GPM) [p. 349]
a profitability indicator which assesses the average mark-up by calculating the percentage of Sales revenue that is retained as Gross Profit

GST [p. 73]
Goods and Services Tax: a 10% tax levied by the federal government on sales of goods and services

GST payable [p. 97, 279]
GST owed by the business to the ATO when the amount of GST the business has received on its revenue is greater than the GST it has paid to its suppliers

GST receivable [p. 97, 279]
GST owed to the business by the ATO when the amount of GST the business has paid to its suppliers is greater than the GST it has received on its fees

GST refund [p. 98]
a cash receipt from the ATO to clear GST receivable

GST settlement [p. 97]
a payment made to the ATO by a small business to settle GST payable

Historical Cost principle [p. 8]
transactions should be recorded at their original purchase price, as this value is verifiable by source document evidence

Income Statement [p. 144]
an accounting report which details the revenues earned and expenses incurred during the reporting period

Income Statement Variance Report [p. 171]
an accounting report that compares actual and budgeted revenues and expenses, and highlights variances so that problems can be identified and corrective action taken

Indicator [p. 23]
a measure that expresses profitability, liquidity or stability in terms of the relationship between two different elements of performance

Interest-only loan [p. 57]
a loan which requires the borrower to make regular interest payments before repaying the entire principal in one lump sum on the last day of the loan period

Internal control [p. 110]
the procedures and strategies used to protect the firm's assets from theft, damage and misuse

Internal finance [p. 54]
funds generated by and within the firm.

Interpreting [p. 338]
examining the relationships between the items in the financial reports in order to explain the cause and effect of changes or differences in performance

Investing activities [p. 324]
cash flows related to the purchase and sale of non-current assets

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Invoice [p. 79, 243]
a source document used to verify credit transactions

Journal [p. 87]
an accounting record which classifies and summarises transactions during a particular reporting period

Lease [p. 56]
a written agreement which grants to the lessee the right to use a particular asset for a specified period of time in return for periodic payments to the lessor

Lessee [p. 56]
the entity that is leasing the non-current asset

Lessor [p. 56]
the entity that provides the non-current asset for lease

Liability [p. 16]
a present obligation of the entity (as a result of past events), the settlement of which is expected to result in an outflow of economic benefits

Limited liability [p. 45]
the legal status of a company, which exists as a separate legal entity, so the owners have no further responsibility for liabilities incurred by the business

Liquidity [p. 24, 338]
the ability of the business to meet its short-term debts as they fall due

Market reaction [p. 188]
the response of customers in a particular marketplace to price levels for a particular good or service

Mark-up [p. 188]
determining selling prices by adding to the cost price a predetermined profit margin

Memo [p. 80]
a source document used to verify internal transactions

Minimum desired profit [p. 186]
a lowest acceptable profit figure, usually similar to previous income plus a return on the amount invested

Monetary Unit principle [p. 9]
all items must be recorded and reported in the currency of the country of location where the reports are being prepared

Mortgage [p. 56]
a loan that is secured against property

Negative gearing [p. 37]
a strategy used by investors to reduce their taxable income by purchasing property which generates rental income which is less than the costs it incurs

Net Profit Margin (NPM) [p. 348]
a profitability indicator that assesses expense control by calculating the percentage of sales revenue that is retained as Net Profit

Non-current asset [p. 20]
a resource controlled by the entity (as a result of a past event), from which a future economic benefit is expected for more than 12 months

Non-current liability [p. 20]
a present obligation of the entity (arising from past events), the settlement of which is expected to result in an outflow of economic benefits sometime after the next 12 months

Non-financial information [p. 359]
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

Not negotiable [p. 77]
a control mechanism that ensures that the cheque can only be deposited into the account of the nominated payee

Operating activities [p. 324]
cash flows related to day-to-day trading activities

Owner's equity [p. 17]
the residual interest in the assets of the entity after the liabilities are deducted

Partnership [p. 44]
a business owned by two or more persons in business together with a view to making a profit

Payee [p. 77]
the entity that is receiving the cheque or to whom the cheque is written

Perpetual inventory system [p.206]
system of accounting for stock that involves the continuous recording of stock movements in stock cards

Prepaid expense [p. 298]
an expense that has been paid but is yet to be consumed

Principal and interest loan [p. 57]
a loan which requires the borrower to make regular repayments of both the principal and interest over the life of the loan

Profitability [p. 338]
the ability of the business to earn profit, as compared against a base such as sales, assets or owner's equity

Proprietary company [p. 44]
a business that exists as a separate legal entity that is entitled to do business in its own right

Purchase invoice [p. 244]
a source document that verifies a credit purchase of stock or other items

Purchases [p. 207]
the stock bought by a trading firm for the purposes of resale

Purchases Journal [p. 245]
an accounting record which summarises all transactions involving the purchase of stock on credit

Qualitative Characteristics [p. 9]
the qualities of the information in accounting reports

Quick Asset Ratio (QAR) [p. 355]
a liquidity indicator that assesses the firm's ability to meet its immediate debts by measuring the ratio of quick assets to quick liabilities

Recommended retail price (RRP) [p. 187]
a selling price that is recommended by the manufacturer or wholesaler

Recording [p. 6]
sorting, classifying and summarising the information contained in the source documents so that it is more usable

Reducing balance interest [p. 60]
interest calculated as a percentage of the current balance owing on the loan

Relevance [p. 10]
reports should include all information which is useful for decision-making

Reliability [p. 10]
reports should contain information verified by source document evidence so that it is free from bias

Reporting [p. 6]
the preparation of financial statements that communicate financial information to the owner

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Reporting Period principle [p. 8]
the life of the business must be divided into 'periods' of time to allow reports to be prepared, and the accounting records should reflect the reporting period in which a transaction occurs

Retained earnings [p. 54]
an internal source of finance consisting of funds generated from business profits that are not taken as drawings by the owner

Return on Assets (ROA) [p. 344]
a profitability indicator that assesses how effectively a business has used its assets to earn profit

Return on Owner's Investment (ROI) [p. 64, 342]
a profitability indicator that assesses how effectively a business has used the owner's capital to earn profit

Revenue [p. 142]
an inflow of an economic benefit (or saving in an outflow) in the form of an increase in assets (or decrease in liabilities) that increases owner's equity (except for capital contributions)

Sales [p. 207]
the revenue earned by a trading firm from the sale of stock

Sales invoice [p. 244]
a source document that verifies a credit sale of stock

Sales Journal [p. 253]
an accounting record that summarises all transactions involving the sale of stock on credit during a reporting period

Security [p. 56]
also known as collateral; an identified asset that can be claimed by a lender from a borrower who defaults on a loan

Service business [p. 86]
a small business that operates by providing its time, labour or expertise (or a combination of all three) in return for a fee or charge

Share [p. 38]
a document that verifies part-ownership in a public company

Simple interest [p. 59]
interest calculated as a percentage of the original amount borrowed

Single-entry accounting [p. 88]
the process of recording transactions in journals and then using the summarised information to prepare reports

Small business [p. 34]
a business in which the owner and manager is the same person, and which employs fewer than fifteen people

Sole proprietorship [p. 43]
a business owned by a single individual, operating their business in their own right under their own name or a registered business name

Source documents [p. 6, 72]
the pieces of paper that provide both the evidence that a transaction has occurred, and the details of the transaction itself

Stability [p. 24, 338]
the ability of the business to meet its debts and continue its operations in the long term

Statement of Account [p. 259]
a summary of the transactions a firm has had with a particular debtor/creditor over a certain period of time (usually a month)

Statement of Receipts and Payments [p. 88]
an accounting report which lists cash receipts and payments during a reporting period, the change in the bank balance, and the opening and closing bank balance

Stock [p. 206]
goods purchased by a trading firm for the purpose of resale at a profit

Stock card [p.206]
a subsidiary accounting record that records each individual transaction involving the movement in and out of the business of a particular line of stock

Stock gain [p. 215]
a revenue that occurs when the stocktake shows more stock on hand than is shown in the stock card

Stock loss [p. 214]
an expense that occurs when the stocktake shows less stock than is shown on the stock cards

Stock sheet [p. 229]
a listing of the quantity and value of each line of stock on hand

Stock Turnover (STO) [p. 230, 357]
an efficiency indicator that measures the average number of days it takes for a business to convert its stock into sales

Stocktake [p. 213]
the process of counting every item of stock on hand to verify the accuracy of the stock cards and detect any stock loss or gain

Term deposit [p. 37]
an investment option that requires the investor to agree to invest for a specified length of time

Term loan [p. 56]
a form of external finance provided by banks and other lenders for a specific purpose and repaid over time

Trade credit [p. 55]
a form of external finance offered by some suppliers, which allows customers to purchase goods/services and pay at a later date

Trading firms [p. 206]
a business which aims to generate profit by purchasing goods and then selling them at a higher price

Transaction [p. 6]
an agreement between two parties to exchange goods or services for payment

Trend [p. 339]
the pattern formed by changes in an item over a number of periods

Understandability [p. 11]
reports should be presented in a manner that makes it easy for the user to comprehend their meaning

Unlimited liability [p. 43]
the legal status of sole proprietorships and partnerships that are not recognised as separate legal entities, so the owner(s) is personally liable for the debts of the business

Unpresented cheque [p. 114]
a cheque that has not yet been presented for payment by the payee

Variable costs [p. 190]
costs that vary directly with the level of activity

Variance [p. 170, 340]
the difference between an actual figure and a budgeted figure, expressed as 'favourable' or 'unfavourable'

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Variance report [p. 169]
an accounting report that compares actual and budgeted figures, highlighting variances so that problems can be identified and corrective action taken

Vertical analysis [p. 351]
a report which expresses every item as a percentage of a base figure (in this case, sales revenue)

Working Capital Ratio (WCR) [p. 24]
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

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SELECTED ANSWERS

Chapter 2

2.6	c	Total Assets = $87 900
2.7	a	Total Assets = $148 500
2.8	b	Total Assets = $139 000
2.15	c	Total Assets = $61 500

Chapter 6

6.1	a	Cash Receipts Journal = $3 650
		Cash Payments Journal = $2 915
6.2	a	Cash Receipts Journal = $2 145
		Cash Payments Journal = $8 049
6.3	a	Cash Receipts Journal = $3 935
		Cash Payments Journal = $5 420
6.4	b	Cash Receipts Journal = $4 257
		Cash Payments Journal = $6 025
6.5	d	Cash Receipts Journal = $19 020
		Cash Payments Journal = $9 975
6.6	a	Cash Receipts Journal = $4 001
		Cash Payments Journal = $3 055
6.7	f	Cash Receipts Journal = $4 136
		Cash Payments Journal = $3 577

Chapter 7

7.1	a	Cash Receipts Journal = $2 582
		Cash Payments Journal = $3 498
	b/d	Bank balance = $319
7.2	b	Cash Receipts Journal = $3 950
		Cash Payments Journal = $2 005
	c/d	Bank balance = $3 195
7.3	a	Cash Receipts Journal = $3 200
		Cash Payments Journal = $3 995
	b/c	Bank balance = ($595)
7.4	a/b	Bank balance = ($380)
7.5	b	Cash Receipts Journal = $6 780
		Cash Payments Journal = $5 455
	c/d	Bank balance = $4 715
7.6	a	Cash Receipts Journal = $15 620
		Cash Payments Journal = $10 540
	b/c	Bank balance = $2 080
7.7	b	Cash Receipts Journal = $3 435
		Cash Payments Journal = $3 175
	d/e	Bank balance = ($290)
7.8	d/e	Bank balance = $450
7.9	c/e	Bank balance = $705
7.10	a	Cash Receipts Journal = $3 845
		Cash Payments Journal = $4 410
	b/c	Bank balance = ($895)
7.11	b	Cash Receipts Journal = $2 511
		Cash Payments Journal = $3 024
	c	Bank balance = ($393)
7.12	c	Cash Receipts Journal = $2 830
		Cash Payments Journal = $3 605
	d/e	Bank balance = ($1 130)

Chapter 8

8.2	a	Net profit = $880
	d	Owner's equity = $33 180
8.3	a	Net loss = $1 600
	d	Owner's equity = $36 800
8.4	a	Net profit = $4 400
	d	Total assets = $59 005
8.5	a	Bank at end = $4 410
	b	Net profit = $2 750
	d	Total assets = $113 910
8.6	b	Bank at end = $4 210
	c	Net loss = $350
	e	Total assets = $87 210
8.7	d	Net profit = $2 500
	f	Total assets = $53 000

Chapter 9

9.1	b	Bank at end = $(1 500)
9.2	b	Bank at end = $1 723
9.3	b	Bank at end = $13 236
9.4	b	Bank at end October = $2 295
		Bank at end November = $4 270
		Bank at end December = $3 560
9.5	a	Bank at end July = $270
		Bank at end August = $(140)
		Bank at end September = $995

Chapter 12

12.3	a	Net profit = $2 000
	c	Owner's equity = $39 500
12.4	a	Net profit = $4 600
	c	Owner's equity = $46 000
12.5	a	Net loss = $5 500
	c	Owner's equity = $49 000
12.8	c	Net profit = $8 800
12.9	f	Net profit = $15 350
	h	Owner's equity = $32 050

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Chapter 13

13.2	b	Purchase Journal = $17 490
13.3	a	Purchase Journal = $ 2 343
		Cash Payments Journal = $10 240
13.4	a	Purchase Journal = $32 010
		Cash Payments Journal = $39 362
13.6	b	Sales Journal = $5 247
13.7	c	Sales Journal = $5 544
		Cash Receipts Journal = $17 990
13.8	b	Sales Journal = $31 240
		Cash Receipts Journal = $22 402
13.9	a	Sales Journal = $3 762
		Purchase Journal = $10 670
		Cash Receipts Journal = $5 898
		Cash Payments Journal = $6 909

Chapter 14

14.1	a	Bank = $1 740
	b	Net profit = $2 400
	f	Total assets = $135 580
14.2	a	Bank = $3 500
	b	Net profit = $25 500
	g	Total assets = $79 500
14.3	a	Net loss = $400
	e	Total assets = $41 880
14.8	b	Net profit = $15 300
	e	Total assets = $103 000
14.9	b	Net loss = $340
	g	Current assets = $34 970

Chapter 15

15.15	c	Net loss = $7 650
	f	Total assets = $265 610
15.16	c	Net profit = $8 730
	g	Total assets = $146 970
15.17	d	Net loss = $6 020
	g	Total assets = $66 855

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