

RECORDING AND REPORTING FOR A TRADING BUSINESS

In Unit 3 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 and the financial information they may require
- **distinguish** between financial data and financial information
- **identify** and **explain** the stages in the accounting process
- **define** and **apply** the accounting principles and qualitative characteristics
- **explain** the relationships between the accounting principles and qualitative characteristics
- **identify** and **define** the elements of financial statements.

CHAPTER 1

THE ROLE OF ACCOUNTING

KEY TERMS

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

- financial data
- financial information
- transaction
- source documents
- recording
- reporting
- advice
- agreed value
- materiality
- accounting principles
 - entity
 - Going Concern
 - Reporting Period
 - Historical Cost
 - Conservatism
 - Consistency
 - Monetary Unit
- qualitative characteristics
 - Relevance
 - Reliability
 - Comparability
 - Understandability
- elements of financial statements
 - assets
 - liabilities
 - owner's equity
 - revenue
 - expense

1.1 THE PURPOSE OF ACCOUNTING

Unfortunately for business owners, having a great business idea is not enough to guarantee success. You don't have to look very far to find stories of business owners who started out with what they thought was a fantastic product or service, but ended up going bust. Aside from the quality of what business owners are selling, there are a variety of other factors that will influence their chance of success, including:

- consumer tastes and demand
- the level of competition
- the quality of their staff/employees
- the economic climate
- the management skills of the owners.

This last point is particularly important because in most small businesses owners have a hands-on managerial role, and their management skills can have a direct and significant effect on what happens to that business. Whether they are determining selling prices, deciding on advertising campaigns, employing staff, or undertaking more mundane tasks, such as paying bills, the owner must make important decisions on a daily basis.

Certainly, small business owners must have detailed knowledge of whatever it is they are trying to sell, but they must also have detailed information on a whole range of other issues that may affect their chances of success. This is where accounting comes into the picture; it is essentially an information service.

Accounting is the collection and recording of financial data, and the reporting, analysis and interpretation of financial information.

purpose of accounting
to provide financial
information to assist
decision-making

The **purpose of accounting** 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* decisions, but it should help them to make *more informed* decisions, which will hopefully improve the performance of the firm and its chances of success.



The purpose of accounting is to provide business owners with financial information that will assist them in making decisions about the activities of their firm

REVIEW QUESTIONS 1.1

- 1 **List** five factors that can influence the likelihood that a small business will be successful.
- 2 **List** three important decisions that a business owner would need to make on a daily basis.
- 3 **Define** 'accounting'.
- 4 **Explain** the purpose of accounting.

1.2 USERS OF ACCOUNTING INFORMATION

This course concentrates specifically on accounting for sole traders; that is, trading businesses that are owned by only one person, who is usually responsible for running the firm. For this reason, we will concentrate on the information that the owner will want to see. However, it is important to note that a number of different parties may be interested in the firm's financial information. 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*, who will want to know about the firm's current levels of debt before providing it with any additional finance
- *employees*, who may wish to know about the firm's long-term viability – and their long-term employment prospects – or its ability to afford improvements in wages and conditions
- *prospective owners*, who may wish to know about the firm's financial structure and earnings performance
- *the Australian Tax Office (ATO)*, which will require financial information for taxation purposes.

Considering the variety of users of accounting information, and the different information each may require, what information should the accounting system provide? This seemingly difficult question has a surprisingly simple answer: the accounting system should provide whatever information the user decides is necessary. This means that it is the user – not the accountant or the accounting system – who decides what is necessary.

Financial data versus financial information

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

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

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

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

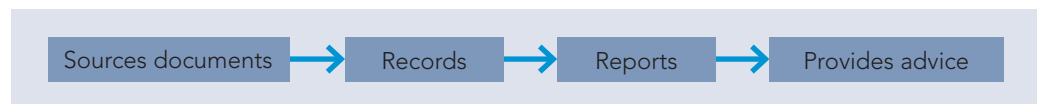
REVIEW QUESTIONS 1.2

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

1.3 THE ACCOUNTING PROCESS

If we work backwards, then what the owner is looking for is the information the accounting system can provide. Data must be collected, processed into a useable form, and then communicated so that the business owner has meaningful information on which to base a decision. The accountant should then provide some guidance as to appropriate courses of action. These four 'phases' or 'stages' are the basis of what is known as the accounting process.

Figure 1.1 *The accounting process*



Stage 1: collecting source documents

Collecting source documents is sometimes known as the 'input stage', where the business collects the source documents relating to its transactions. A **transaction** is simply an exchange of goods or services with another party.

Source documents are the paper or electronic documents that provide both the evidence that a transaction has occurred and the details of the transaction itself. 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 sales and purchases
- *memos*, which provide evidence of transactions within the firm itself.

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

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

Stage 2: recording

Once the source documents have been collected, the data they contain must be written down or noted in a more useable form, or 'recorded'. **Recording** involves sorting, classifying and summarising the data contained in the source documents so that it is more useable. This is sometimes known as the 'processing' stage, where data becomes information.

Common accounting records include:

- *journals*, which record daily transactions of a common type (such as all cash paid or all stock purchased on credit)
- *ledgers*, which record the effect of each transaction on the items in the firm's accounting reports
- *stock cards*, which record all the movements of stock in and out of the business.

transaction

an exchange of goods or services with another party

source documents

paper or electronic documents that provide both the evidence that a transaction has occurred and the details of the transaction itself

recording

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

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

Stage 3: reporting

The 'output' stage of the accounting process involves taking the information generated by the accounting records (in stage 2) and reporting that financial information to the owner of the business in an understandable form. **Reporting** 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 *Cash Flow Statement*, which reports on the firm's cash inflows and outflows, and the change in its cash balance over a period
- an *Income Statement*, which reports on the firm's ability to earn a profit from its trading activities over a period
- a *Balance Sheet*, which reports on the firm's assets and liabilities at a particular point in time.

Stage 4: advice

Armed with the information presented in the reports, the owner should be in a much better position to make informed decisions. However, the best course of action is sometimes unclear. Therefore, the accountant should be able to offer **advice** by making some suggestions about an appropriate course of action or, at the very least, presenting owners with a range of options from which they can then choose.

The provision of advice is the accountant's key function, but this advice rests on the information generated by the first three stages of the accounting process.

Essentially, the accounting process involves collecting data from source documents; sorting it, classifying it and writing it down; communicating the financial information to the owner; and providing advice about that information. We will refer to this accounting process throughout the text, so that you have a clear idea of how each topic fits into the overall process.

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

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

REVIEW QUESTIONS 1.3

- 1 **List** the four stages in the accounting process.
- 2 **Explain** the role of source documents in the accounting process.
- 3 **State** the type of transaction evidenced by the following source documents:
 - receipt
 - cheque butt
 - invoice
 - memo.
- 4 **Explain** the difference between the 'recording' and 'reporting' stages of the accounting process.
- 5 **State** the purpose of the following accounting reports:
 - Cash Flow Statement
 - Income Statement
 - Balance Sheet.

1.4 ACCOUNTING PRINCIPLES

By and large, accountants approach their craft from a common perspective. For instance, most would agree that a motor vehicle owned by the firm should be regarded as an asset. However, from time to time certain issues arise where proper accounting procedure is unclear, and a number of alternative approaches are possible. For instance, if a business purchased a building in 1991 for \$225 000, and spent \$140 000 on renovations in 2004, at what value should it be recorded and reported today? What if the building would be worth \$850 000 if sold today? What if its plumbing system requires replacement? In short, how much is the building worth?

These are but a few of the questions that an accountant must answer, and in many cases, each of these questions could have more than one answer.

To provide for some degree of certainty, the accounting profession has agreed to a number of **accounting principles** that govern the way accounting information is generated. In this course, we will investigate the following accounting principles:

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

Entity

The **Entity** principle states that from an accounting perspective, the business is assumed to be separate from the owner and other businesses, and its records should be kept on this basis. This may seem a slightly bizarre idea, especially when we consider that the owner of a sole proprietorship is frequently the person behind the counter, or the one actually performing the service. However, if we are to assess the performance of the *business itself*, we must include only information relevant to that business. The owner may have a beach house or a four-wheel drive, but if this item is not being used by the business, it must not be included as a business asset.

Transactions between the business and the owner

In practical terms, the Entity principle means that the business must have a separate bank account, and that it should only be used for business purposes. If the owner uses the business's funds for personal purposes, this must be recorded in the business's records as drawings.

In the same way, if the owner contributes personal assets to the business, then this should be recorded as a capital contribution from one entity (that is, the owner) to another entity (that is, the business).

In the case of a contribution of non-cash assets, such as a vehicle, the Entity principle will have a further effect in terms of the way the asset is valued. Consider an asset, such as a vehicle, purchased by the owner but then contributed to the business. This asset cannot be valued at the original price paid by the *owner*, as it is the cost to the *business*, as a separate entity, that is important.

However, although the business and the owner are assumed to be separate accounting entities, there would be no source document to verify the 'sale' by the owner to the business as they are, in fact, one and the same. In this case, the asset

accounting principles the generally accepted rules that govern the way accounting information is generated

Entity the business is assumed to be separate from the owner and other businesses, and its records should be kept on this basis



If a business owner contributes a personal asset, such as a vehicle, to the business, this should be recorded as a capital contribution from one Entity (the owner) to another Entity (the business)

would be recorded in the books of the business at an **agreed value** (determined at the time the asset is contributed to the business). This agreed value would then become the effective Historical Cost as far as the business is concerned.

Going Concern

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 have an effect on the future. For instance, where a sale is made on credit terms, the cash will not have been received from the customer. By assuming that the business will continue trading indefinitely, the Going Concern principle allows us to record debtors (amounts owed to the business by credit customers) as an asset because at some stage in the future the business is likely to receive cash. The same applies to amounts the business owes to its creditors for its credit purchases, or to amounts the business has paid in advance for benefits it is yet to receive.

The effect of the Going Concern principle is also significant in distinguishing between expenses (whose benefit is consumed entirely) and assets (whose benefit extends into the future). Only by assuming that the life of the business is ongoing can we recognise the benefit that *will be* derived some time in the future from the assets under the firm's control. (See '1.6 The elements of financial statements' for a discussion of the difference between assets and expenses.)

Reporting Period

The **Reporting Period** principle states that the life of the business must be divided into periods of time to allow reports to be prepared. 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 profit can be determined. We cannot wait until the end of the firm's life to calculate profit (because we are assuming that the end will never come) so we calculate profit for the month, or year. A Reporting Period can be as short as the owner requires, but in most cases, to meet taxation requirements, is no longer than a year.

agreed value
the accepted value of a non-cash asset at the time of its contribution by the owner

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

Reporting period
the life of the business must be divided into periods of time to allow reports to be prepared; these accounting reports should reflect the Reporting Period in which a transaction occurs

accrual accounting

calculating profit by comparing revenues earned against expenses incurred in a particular reporting period

Historical Cost

the recording of a transaction at its original cost or value, as this value is verifiable by reference to the source document

Conservatism

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

Consistency

accounting methods should be applied in a consistent manner to ensure that reports are comparable between periods

Monetary Unit

all items must be recorded and reported in a common unit of measurement; that is, Australian dollars

One possible consequence of dividing the life of the business is that at the end of a Reporting Period the business may still be waiting for some cash from debtors, or may not yet have paid for some expenses. These amounts are still included in the calculation of profit, as the revenue was *earned* (when the goods were sold) and the expense *incurred* (when the item was consumed) in the current reporting period. This method of calculating profit as revenues *earned* less expenses *incurred* in each Reporting Period is known as **accrual accounting**.

Historical Cost

The **Historical Cost** principle states that a transaction should be recorded at its original cost or value, as this value is verifiable by reference to the source document. This principle applies particularly to assets, which must be recorded at their original purchase price. Any other valuation, such as resale value or replacement value, is subject to a certain amount of guesswork, and therefore Historical Cost is preferred. For instance, if land is bought for \$300 000, and is later estimated to be worth \$320 000, it should remain in the accounting records as \$300 000 as the other price is only an estimate, and not verifiable. There are certain situations in which it is acceptable to use a valuation other than Historical Cost, but these situations will be covered in later chapters.

Conservatism

The **Conservatism** principle states that losses should be recorded when probable but gains should be recorded only when certain, 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. Where different valuations are possible, or it is impossible to avoid the use of an estimate, accountants should use whichever data gives the most cautious or 'conservative' assessment. This does not mean the records should deliberately represent a situation as worse than it actually is, but it does mean they should not represent the situation as better than it might turn out to be. From an accounting point of view it is better to be cautious and conservative than overly optimistic (and then get a rude shock when reality does not match expectations).

Consistency

The **Consistency** principles states that accounting methods should be applied in a consistent manner from one period to the next, so that reports can be compared between periods. Without consistent accounting methods, it is difficult to tell whether changes in accounting reports are the result of changes in business performance, or simply changes in accounting procedures. This makes it difficult to compare reports from one period to the next. The amounts in the reports do not need to be the same, but the way they are calculated does.

Monetary Unit

The **Monetary Unit** principle states that all items must be recorded and reported in a common unit of measurement; that is, Australian dollars. This is one of the more obvious principles. It would make little sense to record the purchase of a motor vehicle as '1 Holden Commodore' without attaching a valuation in dollars. To do so would make it impossible to aggregate total assets or make comparisons between periods or businesses. Similarly, recording loans in Australian dollars and stock in Japanese yen would make the information impossible to use.



The Monetary Unit principle states that all items must be recorded and reported in a common unit of measurement; that is, Australian dollars

REVIEW QUESTIONS 1.4

1 Define the following accounting principles:

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

2 Explain one practical consequence of adopting the entity principle.

3 State the length of a Reporting Period. (Beware: this is a trick question!)

4 Explain why the implementation of the Going Concern principle requires the adoption of the Reporting Period principle.

5 State how profit is calculated under accrual accounting.

1.5 QUALITATIVE CHARACTERISTICS

In addition to the accounting principles, which guide the recording process, the profession is guided by what is known as *The International Framework for the Preparation and Presentation of Financial Reports*. The Framework, as it has become known, sets out the broad concepts that underpin the preparation of financial reports. These concepts are known as **qualitative characteristics**. The Framework also defines the items that will be reported in each report.

The Framework also provides the basis for the development of Accounting Standards, which are rules governing specific accounting procedures that all accountants are compelled to follow. These standards underpin many of the techniques used in this text, but students are not required to know the relevant Accounting Standard.

If we follow and implement the accounting principles when we are recording, then our accounting reports should possess the qualitative characteristics outlined in the Framework. 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.

qualitative characteristics
the qualities of the information in accounting reports

STUDY TIP

Accounting principles apply mainly to records, whereas qualitative characteristics apply to reports.

Relevance

accounting reports should include all information that is useful for decision-making

materiality

size or significance

Reliability

accounting reports should contain information that is accurate, and free from bias or error

Comparability

accounting reports should be able to be compared over time

Understandability

accounting reports should be presented in a manner that makes it easy for them to be understood by the user

Relevance

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, and appropriate to the decision at hand. The quality of Relevance guides us in 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 a 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 are 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 to assess this year's profit. The key is whether the information is useful for decision-making.

Although Relevance is determined largely by whether the *nature* of the item makes it useful for decision-making, the *size* or **materiality** of the item can also be important. Items that are too small or insignificant to affect decision-making may be considered to be immaterial, meaning they can be reported in the value of a larger item, or in some cases omitted from the reports. For instance, *Relevance* allows us to omit from the Balance Sheet \$1.95 spent on stationery (as it is such a small amount) and instead report this as an expense. Its inclusion (or exclusion, for that matter) in the Balance Sheet will not affect decision-making in any material way.

Reliability

Reliability states that reports should contain information that is free from bias and error, and thus can be relied upon for its accuracy. The quality of *Reliability* means that in relation to the amounts we show in 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 and error is to make sure it is verifiable by reference to a source document. Reliable information has proof to support its accuracy. For example, it should be possible to check the level of credit sales reported in the Income Statement against the invoices that documented the sales. This ensures there is no room for subjectivity or guesses.

Comparability

Comparability states that reports should be comparable over time, and between different companies, through the use of consistent accounting procedures. One of the most basic uses of accounting reports is to compare performances of businesses and between periods. However, this will only be possible if consistent accounting methods have been used. Where accounting procedures are changed, this should be stated clearly (disclosed) in the reports, so that the users can make more informed assessments of what the reports are telling them.

Understandability

Understandability states that reports should be presented in a manner that is simple to understand.

It is important to remember that the most basic function of accounting reports is to communicate information to the user; that is, sole traders and/or owners. Most small business owners are not accountants, so it is not sensible to present reports in a form that owners cannot understand. The characteristic of Understandability means it is easy for the user to comprehend the meaning of reports. 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.

In summary, the accounting process is guided by:

- accounting principles, which govern the way accounting information is recorded
- qualitative characteristics, which inform the way accounting reports are prepared.

REVIEW QUESTIONS 1.5

- 1 **Define** the following qualitative characteristics:
 - Relevance
 - Reliability
 - Comparability
 - Understandability.
- 2 **Explain** how the Entity and Reporting Period principles ensure Relevance in the accounting reports.
- 3 Referring to one qualitative characteristic, **explain** why accountants must follow the Historical Cost principle.
- 4 **Explain** how the recording system can ensure *Comparability* of accounting reports.
- 5 **Suggest** two ways of improving the Understandability of accounting reports.

1.6 THE ELEMENTS OF FINANCIAL STATEMENTS

We have discussed at length the qualities that accounting reports should possess, but what items should they include? The Framework defines the elements of the accounting reports as:

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

Assets

Assets are resources controlled by an entity, as a result of past events, from which future economic benefits are expected to flow to the entity. For an item to be recognised as an asset, it must meet each part of the definition. An item that fails to meet any of these requirements cannot be considered to be an asset.

Let's break this definition down into its main components.

Resources controlled by the entity

Resources are simply items that are capable of generating an economic gain for a business, such as bank (the cash held there, not the building), debtors, stock, vehicles and premises.

However, only those items that are under the firm's *control* can be defined as assets. This means that the firm must be in a position 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 the bank account will be spent, when the debtors are expected to pay and how the vehicles will be used.

By contrast, the owner's home cannot be classified as a *business asset* because it is not under *business control*. Don't forget the Entity principle here: the owner's home is under the control of the owner, who is considered to be a separate accounting entity from the business.

asset

a resource controlled by an entity, as a result of past events, from which future economic benefits are expected to flow to the entity

Note that although a business will own many of its assets, ownership itself is not a necessary condition for an item to be classified as a business asset. *Control* is much broader than *ownership*, so the firm's assets will obviously include, but not be restricted to, what it owns.

Future economic benefits

In addition to falling under business control, assets must be capable of generating a *future* economic benefit. That is, they must represent some sort of benefit that is yet to be received. This reflects the Going Concern principle. For example, cash in the bank can be spent and stock can be sold at some point in the future; the amount owed to the business by its debtors will be received as cash some time in the next month or so; and items such as premises and vehicles will usually be used for business activities for a number of years into the future.

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

Liabilities

Liabilities are present obligations of the entity as a result of past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits. This may seem like a lot of jargon, but broken into its components it is easier to understand.

Present obligations

If the business has a legal responsibility (or *obligation*) to settle a debt, then this debt is likely to be a liability. In the case of a bank overdraft or mortgage, the contract with the lender means the business is obliged to repay the amount owing.

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

Expected to result in an outflow of economic benefits

The fact that a liability is *expected* to result in an outflow or sacrifice of economic benefits means that the outflow/sacrifice has not yet occurred. In this way, a liability could be seen as requiring a *future economic sacrifice*.

In most cases, the economic benefit to be sacrificed will be cash, and the expected outflow will occur when the business pays its debts. However, this is not always the case; there may be an alternative economic benefit that must be sacrificed. For example, a firm may have received cash in advance for a job yet to be completed; it is not a payment that is required to extinguish this liability, but the completion of the work.

Owner's equity

Owner's equity is the residual interest in the assets of the entity after the deduction of its liabilities. In effect, owner's equity is what is left over for the owner once a firm has met all its liabilities. 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'.

liability

a present obligation of the entity as a result of past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits

owner's equity

the residual interest in the assets of the entity after the deduction of its liabilities

Revenue

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. Capital contributions are excluded because they occur not due to the activities of the *business*, but rather the actions of the *owner*.

Revenue then represents the *increases* in owner's equity that occur through business activities, and in most cases will represent what the business has gained from the goods it has sold or the work it has done. But there are other forms of revenue, and although revenue may take the form of cash, this is not a requirement: credit sales would be revenue in the form of an increase in an asset other than cash (namely, debtors), whereas discount revenue would take the form of a decrease in a liability (creditors). The key is that a revenue must increase owner's equity, but not as a consequence of the owner making a contribution.

Expenses

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. Drawings is excluded because it doesn't contribute to the firm's ability to carry out its trading activities, and so does not affect its ability to earn revenue or profit.

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

revenue

an inflow of economic benefits (or saving in outflows) in the form of an increase in assets (or decrease in liabilities) that increases owner's equity, except for capital contributions by the owner

expense

an outflow or consumption of economic benefits (or reduction in inflows) in the form of a decrease in assets (or increase in liabilities) that reduces owner's equity, except for drawings by the owner

STUDY TIP

Compare the definitions of revenues and expenses. Opposites apply here.

REVIEW QUESTIONS 1.6

1 **Define** the following items:

- asset
- liability
- owner's equity
- revenue
- expense.

2 **State** one reason why wages is **not** considered to be an asset.

3 **State** one reason why the advertising for next year is **not** considered to be a liability.

4 **Explain** why a capital contribution is **not** considered to be revenue.

5 **Explain** why drawings is **not** considered to be an expense.

WHERE HAVE WE BEEN?

- The purpose of accounting is to provide financial information to assist decision-making.
- The accounting process involves collecting source documents, recording financial data and then reporting financial information, and subsequently advising the owner on an appropriate course of action.
- Accounting principles, the generally accepted rules governing the way accounting information is generated, are:
 - entity
 - Going Concern
 - Reporting Period
 - Historical Cost
 - Conservatism
 - Consistency
 - Monetary Unit.
- Qualitative characteristics, the qualities we would like our financial reports to possess, are:
 - *Relevance*
 - *Reliability*
 - *Comparability*
 - *Understandability*.
- The three general-purpose financial reports are the Cash Flow Statement, the Income Statement and the Balance Sheet.
- The elements of the financial reports are assets, liabilities, owner's equity, revenue and expenses.

EXERCISES

EXERCISE 1.1 ACCOUNTING PRINCIPLES

 page 4

In each of the following situations, **state** and **explain** the accounting principle that has been breached.

- a** Rhonda recorded the payment of her daughter's orthodontist's fees as a business expense.
- b** The proprietor of Richmond Spare Parts decided to combine the recording of repair expenses with vehicle expenses after recording them separately for several years.
- a** Due to uncertainties with the exchange rate, Dig Freely decided to record foreign earnings in yuan (the Chinese currency).
- a** During January 2015, Jean Simons received cash for goods sold in December 2014. Jean decided to record the cash as revenue for 2015.
- e** Mills & Son have just revalued their non-current assets upwards by 4% to reflect the rate of inflation.
- f** Paul Rullett is the proprietor of PR Traders. He has decided to list all the liabilities of the firm as current to give him a better picture of what he owes, despite a mortgage that is due in 10 years.
- g** Karen Roberts only prepares financial reports every two years.



EXERCISE 1.2

ACCOUNTING PRINCIPLES AND QUALITATIVE CHARACTERISTICS



page 6

During December 2015, Bon Wilhelm paid for a family holiday using a business cheque. This transaction was treated as a business expense, with Bon arguing, 'It's my business; it's my money.'

Required

- a Referring to one accounting principle, **explain** why this transaction should have been recorded as drawings.
- b **Explain** how Wilhelm's decision will undermine the Relevance of the financial reports.

EXERCISE 1.3

ACCOUNTING PRINCIPLES AND QUALITATIVE CHARACTERISTICS



page 7

In October 2015, Mark Larkin, the owner of Larkin Lighting, decided that the firm's stock should be valued at its selling price rather than its cost price because, according to Mark, 'That's what it is actually worth.'

Required

- a Referring to one accounting principle, **explain** why the stock must be valued at its cost price.
- b **Explain** how valuing stock at its selling price will undermine the Reliability of the reports.

EXERCISE 1.4

ACCOUNTING PRINCIPLES AND QUALITATIVE CHARACTERISTICS



page 8

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

Required

- a Referring to one accounting principle, **explain** why Erica should disclose the damages in the Income Statement.
- b **State** the qualitative characteristic that supports your answer to part 'a'. **Justify** your answer.

EXERCISE 1.5

ACCOUNTING PRINCIPLES AND QUALITATIVE CHARACTERISTICS



page 9

In an attempt to satisfy the Consistency principle, Coolick Refrigerators always reports the same figure for depreciation of equipment.

Required

- a **Define** 'consistency' as an accounting principle.
- b Referring to one qualitative characteristic, **explain** why the accounting records should be maintained by following the Consistency principle.

EXERCISE 1.6

page 10

ACCOUNTING PRINCIPLES, QUALITATIVE CHARACTERISTICS AND ELEMENTS OF THE REPORTS

In October 2014, Rad Magazines successfully completed a marketing campaign where readers pay in advance for magazines to be delivered in 2015. The owner wants to record all the cash received as revenue for 2014.

Required

- a** Referring to one accounting principle, **explain** why the cash received should **not** be recorded as revenue for 2014.
- b** **State** the qualitative characteristic that will be undermined if the cash received is reported as revenue for 2014. **Justify** your answer.
- c** Referring to the definitions of the elements of the reports, **explain** why the cash received is **not** yet revenue.

EXERCISE 1.7

page 11

ACCOUNTING PRINCIPLES AND QUALITATIVE CHARACTERISTICS

The accounting department of Plastic Cups Emporium recently issued a report to a meeting of the workers of the firm, complete with various financial statements and financial ratios. None of the workers at the meeting had any knowledge of accounting.

Required

- a** Referring to one qualitative characteristic, **explain** why the accounting reports will **not** fulfil their intended function.
- b** **State** one technique the accounting department could employ to improve the appropriateness of its financial reports.

EXERCISE 1.8

page 12

ACCOUNTING PRINCIPLES AND QUALITATIVE CHARACTERISTICS

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

Required

- a** Referring to one accounting principle, **explain** why the market value of Frosty Fridges will **not** be shown as the difference between total assets and total liabilities.

EXERCISE 1.9

page 13

ACCOUNTING PRINCIPLES, QUALITATIVE CHARACTERISTICS AND ELEMENTS OF THE REPORTS

On 1 April 2012, Max contributed second-hand shelving to his business with an agreed value of \$12 500. Max originally paid \$15 000 for the shelving. On 30 June 2015, the resale value of the shelving was \$8 500.

Required

- a** Referring to the definitions of the elements of the reports, **explain** how the shelving should be classified in the Balance Sheet of Max's business.
- b** Referring to one accounting principle, **explain** how the shelving should have been valued in the Balance Sheet of Max's Mart as at 1 April 2012.
- c** Referring to one qualitative characteristic, **explain** why the shelving should **not** be valued at its resale value in the Balance Sheet as at 30 June 2015.

EXERCISE 1.10 ELEMENTS OF THE REPORTS

 page 14

For each of the following items, **state** whether it should be reported in the Income Statement or the Balance Sheet, using the definitions of the elements of the reports to **explain** how it should be classified:

- a** debtors
- b** loan – principal
- c** interest on loan
- d** stock loss
- e** cash sales
- f** wages incurred
- g** wages owing
- h** discount revenue.

EXERCISE 1.11 ELEMENTS OF THE REPORTS

 page 15

Hard Utes specialises in the sale of utility vehicles. On 31 August 2014, the firm purchased a new vehicle worth \$35 000 on credit from Holden.

Required

- a Explain** the difference between an asset and an expense.
- b Explain** one circumstance in which the cost of the vehicle would be reported as a current asset.
- c Explain** one circumstance in which the cost of the vehicle would be reported as a non-current asset.
- d Explain** one circumstance in which the cost of the vehicle would be reported as an expense.

EXERCISE 1.12 GOODWILL

 page 16

Over the last couple of years, Elaine has built up a loyal clientele for her fashion boutique, Fine Fashions. These customers buy from Elaine on a regular basis because they trust her judgement and expertise.

Required

- a Discuss** whether Elaine should recognise this 'goodwill' as an asset.

Where are we headed?

After completing this chapter, you should be able to:

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

CHAPTER 2

THE ACCOUNTING EQUATION

KEY TERMS

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

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

2.1 ASSETS, LIABILITIES AND OWNER'S EQUITY

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

Let's start by refreshing our understanding of assets, liabilities and owner's equity.

Assets

As was explained in Chapter 1, assets are defined as resources controlled by an entity, as a result of past events, from which future economic benefits will flow to the entity.

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

- *bank* – cash kept in the business's bank account
- *debtors* – the amount owed to the business by customers who were sold goods on credit
- *stock* – goods purchased and held for resale to customers
- *fixtures and fittings* – items used in the business premises, such as shelving or window coverings
- *vehicles* – cars, trucks and vans used for business purposes
- *premises* – the building(s) from which the business activity is conducted.

Liabilities

Liabilities are present obligations of the entity as a result of past events, the settlement of which is expected to result in an outflow of resources embodying economic benefits.

A common list of liabilities might include:

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

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

Owner's equity

Owner's equity is the residual interest in the assets of the entity after the deduction of its liabilities. Liabilities are obligations to external entities; that is, parties outside the firm, such as banks, creditors and other lenders. This means that liabilities are debts owed to entities other than the owner. The amount owed to the owner – the owner's claim on the assets of the firm – must be reported separately as owner's equity.

How can a business owe its owner? Don't forget the Entity principle: as accountants, we assume that the business and the owner are separate entities, separate beings. The assets of the *firm* are not assets of the *owner*, and nor are the liabilities; they are assumed to belong to the business alone. Because the value of the firm's assets must exceed its liabilities, there will be an amount 'left over'. It is this left over or residual

amount that the firm owes not to any external party, but to the owner, so owner's equity is the residual interest in the assets of the entity after the deduction of its liabilities.

The accounting equation

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

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



equities

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

accounting equation

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

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

Accounting equation

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

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

For instance, if a firm has assets of \$120 000 and liabilities worth \$85 000, its owner's equity must be the residual (that is, what is left over): \$35 000. It is not possible for owner's equity to equal an amount *greater* than this, because there would be insufficient assets to fund the claim.

On the other hand, it is not possible for owner's equity to equal an amount *less* than this. If liabilities claimed \$85 000, and the owner claimed only \$20 000, that would leave an amount of \$15 000 that has not been claimed by liabilities, nor by the owner (and no-one is suggesting it should just be given away!). It is not possible for an amount to remain unclaimed, proving that the accounting equation must always balance.

REVIEW QUESTIONS 2.1

- 1 **Define** the term 'asset'.
- 2 **List** three assets that would be found in the Balance Sheet of a typical trading firm.
- 3 **Define** the term 'liability'.
- 4 **List** three liabilities that would be found in the Balance Sheet of a typical trading firm.
- 5 **Define** the term 'owner's equity'.
- 6 Referring to one accounting principle, **explain** how a business can 'owe its owner'.
- 7 **State** the accounting equation.

2.2 THE BALANCE SHEET

Balance Sheet

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

The relationship between assets, liabilities and owner's equity – as described by the accounting equation – is at the heart of the **Balance Sheet**. The Balance Sheet is an accounting report that details the firm's assets, liabilities and owner's equity at a particular point in time, and is a reflection of the firm's accounting equation. This relationship is shown in Figure 2.1.

Figure 2.1 The accounting equation and the Balance Sheet

Assets	=	Liabilities + Owner's equity
Assets		Liabilities
		plus Owner's equity
TOTAL ASSETS		TOTAL EQUITIES

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

Figure 2.2 Balance Sheet

MORGAN'S MERCHANDISE					
Balance Sheet as at 30 June 2015					
Assets	\$	\$	Liabilities	\$	\$
Bank		5 000	Creditors	6 000	
Stock		34 000	Loan – MHB Bank	36 000	42 000
Debtors		12 000	Owner's Equity		
Vehicles		45 000	Capital – Morgan		54 000
Total Assets		96 000	Total Equities		96 000

The assets are listed on the left-hand side, with the equities (liabilities and owner's equity) listed on the right, just like the accounting equation.

Note how the title of the report states *who* it has been prepared for (Morgan's Merchandise), *what* kind of report it is (a Balance Sheet) and *when* it was prepared (30 June 2015). Because businesses engage in a number of transactions every day, and every transaction changes the Balance Sheet, the Balance Sheet is only ever accurate on the day it is prepared. Thus, the title says 'as at' a particular date.

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

REVIEW QUESTIONS 2.2

- 1 **Explain** what is shown in a Balance Sheet.
- 2 **Explain** the relationship between the accounting equation and the Balance Sheet.
- 3 **State** the three pieces of information that must be present in the title of every accounting report.
- 4 **Explain** why the Balance Sheet is titled 'as at' a particular date.

2.3 CLASSIFICATION IN THE BALANCE SHEET

Given that accounting exists to provide financial information to assist decision-making, accountants are always seeking ways to improve the usefulness of the information they provide. One simple but very effective way of improving the usefulness of the Balance Sheet is by classifying the information it contains.

Classification involves grouping together items that have some common characteristic. In relation to the Balance Sheet, the assets and liabilities have already been grouped together, but within these groupings the items can be classified according to whether they are current or non-current.

Current 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 assets** or **non-current assets**. Put simply, assets are classified as current or non-current according to how long they are expected to last.

If it is expected that the asset will be sold, used up or turned into cash within a year (that is, if it is expected to provide an economic benefit only *in the next 12 months*) then it should be classified as a current asset. Common current assets include the cash in the business's bank account, the stock it is holding for resale, 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 premises, vehicles or shop fittings) should be classified as non-current assets.

classification

grouping together items that have some common characteristic

current asset

a resource controlled by the entity as a result of past events, from which a future economic benefit is expected to flow to the entity *in the next 12 months*

non-current asset

a resource controlled by the entity as a result of past events, from which a future economic benefit is expected to flow to the entity *for more than the next 12 months*

If it is expected that an asset will be sold, used up or turned into cash within a year (such as stock held for resale in a warehouse) it should be classified as a current asset



An asset that is expected to provide an economic benefit for more than the next 12 months (such as a business's premises or truck) should be classified as a non-current asset



current liability

a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow of resources embodying 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 resources embodying economic benefits *in more than 12 months*

Current versus non-current liabilities

The same '12-month' test applies to liabilities. **Current liabilities** are obligations that are expected to be met *in the next 12 months*, such as amounts owing to creditors and loans due in the next year. 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. That is, although it is unlikely to occur, it is possible that an overdraft could be called in (for repayment) on very short notice, making it a current liability.

By contrast, **non-current liabilities** are those obligations that must be met some time *in more than 12 months*. Longer-term loans, such as mortgages, are the most common non-current liabilities.

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

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

Figure 2.3 Classified Balance Sheet

MORGAN'S MERCHANDISE
Balance Sheet as at 30 June 2015

Current Assets	\$	\$	Current Liabilities	\$	\$
Bank	5 000		Creditors	6 000	
Stock	34 000		Loan – MHB Bank	12 000	18 000
Debtors	12 000	51 000			
			Non-Current Liabilities		
Non-Current Assets			Loan – MHB Bank		24 000
Vehicles		45 000			
			Owner's Equity		
			Capital – Morgan		54 000
Total Assets		96 000	Total Equities		96 000

In this example, the Loan – MHB Bank for \$36 000 has been split between **current** and **non-current** liabilities: \$12 000 must be repaid in the next 12 months, with the remaining \$24 000 due for repayment some time after that.

Note also the use of columns: where necessary, the left-hand column on each side of the statement 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.

Uses of the classified Balance Sheet

With current and non-current items identified, the Balance Sheet now has more *Relevance* for decision-making. For example, it can be used to identify the amount of debts that must be met in the forthcoming year; that is, current liabilities. If the owner wants to go further, the current liabilities can be compared against the current assets to assess the firm's ability to meet those short-term debts. This is, in effect, an assessment of the firm's liquidity by calculating its Working Capital Ratio, but we will leave this until Chapter 19.

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 2.3

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

2.4 DOUBLE-ENTRY ACCOUNTING

Although the Balance Sheet states a firm's financial position at a particular point in time, this position is not static: it will change after every transaction. Specifically, when a business exchanges goods and/or services with another Entity, at least two items will change in its accounting equation and, therefore, its Balance Sheet. This is true of every transaction that a firm could have. This means the accounting equation and Balance Sheet will need to be rewritten after every transaction. At the same time, the accounting equation must always balance, so even after each transaction has been recorded, the accounting equation and the Balance Sheet must still balance. These two rules form the basis of what is known as **double-entry accounting**.

double-entry accounting
a system that records two effects on the accounting equation as a result of each transaction

Rules of double-entry accounting

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

EXAMPLE

Imelda's Shoe Shop has presented the following transactions:

- 1 **Imelda contributed \$20 000 to establish a business bank account.**
As a result of this transaction, the business now has \$20 000 in its **Bank** account: an increase in its assets of \$20 000. In addition, because that cash came from the owner (who is assumed to be a separate accounting Entity), the **Owner's Equity** has increased by \$20 000. The accounting equation for Imelda's Shoe Shop after this transaction is shown in Figure 2.4.

Figure 2.4 Accounting equation 1

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

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

2 **Purchased stock on credit from Milano Leather Products for \$45 000.**

This time it is not **Bank** that increases, but a different asset: **Stock**. On the other side of the accounting equation, a liability is created, called **Creditors**, representing the amount owed to Milano Leather Products. The accounting equation for Imelda's Shoe Shop after transaction 2 is shown in Figure 2.5.

Figure 2.5 Accounting equation 2

Assets	\$	\$	Liabilities	\$	\$
Bank		20 000	Creditors		45 000
Stock		45 000	Owner's Equity		
			Capital – Imelda		20 000
Total Assets		65 000	Total Equities		65 000

While there is no change to **Bank**, the new asset – **Stock** – increases the assets to \$65 000. On the other side of the accounting equation, **Creditors** increases the equities to the same amount and, once again, the accounting equation balances.

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

This transaction creates a third asset (**Shop Fittings**) but in the process decreases **Bank** by the same amount. Thus, the amounts of the individual assets change without changing the total assets figure. There is no change on the equities side of the equation, proving that although two items must change, they can both be on the same side of the accounting equation, provided that the result still balances. The accounting equation for Imelda's Shoe Shop after transaction 3 is shown in Figure 2.6.

Figure 2.6 Accounting equation 3

Assets	\$	\$	Liabilities	\$	\$
Bank		8 000	Creditors		45 000
Stock		45 000	Owner's Equity		
Shop Fittings		12 000	Capital – Imelda		20 000
Total Assets		65 000	Total Equities		65 000

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 2.4

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



WHERE HAVE WE BEEN?

- Assets are resources controlled by the Entity as a result of past events, from which a future economic benefit is expected to flow to the Entity.
- Liabilities are present obligations of the Entity arising from past events, the settlement of which is expected to result in an outflow of resources embodying economic benefits.
- Owner's equity is the residual interest in the assets of the Entity after the deduction of its liabilities.
- The accounting equation is 'Assets = Liabilities + Owner's Equity', and it must always balance.
- The Balance Sheet is an accounting report that details the business's assets, liabilities and owner's equity at a particular point in time, and is a reflection of the firm's accounting equation.
- Assets are classified as current if they are expected to provide an economic benefit in the next 12 months. Assets that provide an economic benefit for more than 12 months are classified as non-current.
- Liabilities are classified as current if it is expected they will be settled in the next 12 months. Liabilities that will be settled in longer than 12 months are classified as non-current.
- Double-entry accounting means each and every transaction will have at least two effects on the accounting equation, and after these effects have been recorded the accounting equation must balance.



EXERCISES

EXERCISE 2.1 CLASSIFYING ITEMS



page 18

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

- creditors
- bank overdraft
- cash on hand
- capital
- debtors
- equipment
- mortgage owing on premises (for both this year and remainder)
- premises
- stock
- vehicles
- wages owing to employees
- rent paid in advance
- GST payable.

EXERCISE 2.2

BALANCE SHEET

 page 19

Mark Florence is the owner of Ponte Jewellers, and has provided the following list of the firm's assets and liabilities as at 31 May 2015:

Stock	\$62 000
Creditors	3 400
Loan – NAB (repayable 2025)	30 000
Shop Fittings	12 000
Bank	5 900
Debtors	8 600
Office Equipment	4 100

Required

- a **Explain** what is meant by the term 'equities'.
- b **Calculate** Capital as at 31 May 2015.
- * c **Prepare** a classified Balance Sheet for Ponte Jewellers as at 31 May 2015.
- d Referring to your answer to part 'c', **explain** your treatment of Creditors.

EXERCISE 2.3

BALANCE SHEET

 page 20

Greg Miller owns Greg's Gardening Supplies and has provided the following information as at 31 January 2015:

Item	\$	Item	\$
Term Deposit (matures 2020)	8 000	Bank	700
Debtors	2 490	Creditors	1 400
Wages Owing	600	Motor Vehicle	22 000
Stock	50 000	Loan from ANZ due 2025 (repayable \$2 000 p.a.)	36 000

Required

- a **Calculate** Capital as at 31 January 2015.
- * b **Prepare** a classified Balance Sheet for Greg's Gardening Supplies as at 31 January 2015.
- c Referring to your answer to part 'b', **explain** your treatment of Stock.
- d The motor vehicle is three years old, and the owner has estimated its value at \$15 200, rather than \$22 000 as listed in the Balance Sheet. **Discuss** how the motor vehicle should be valued, citing at least two qualitative characteristics in your answer.

EXERCISE 2.4 BALANCE SHEET

 page 21

Laura Destio owns Mallacoota Wines and has provided the following information as at 30 June 2015:

Item	\$	Item	\$
Bank Overdraft	2 500	Shelving	43 000
Stock	12 000	Mortgage	60 000
Creditors	5 000	Debtors	10 500
Premises	100 000	GST Payable	1 700

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

Required

- * **a Prepare** a classified Balance Sheet for Mallacoota Wines as at 30 June 2015.
- b Explain** why a Balance Sheet is titled 'as at'.
- c Explain** your treatment of:
 - Debtors
 - Bank Overdraft.
- d State** two external users who might be interested in this Balance Sheet.

EXERCISE 2.5 TRANSACTIONS AND THE ACCOUNTING EQUATION

 page 23

State the effect each of the following transactions has on the accounting equation:

- a loan for \$5 000 was received from ANZ Bank
- office furniture worth \$19 000 was purchased on credit from HP Enterprises
- a creditor was paid \$450
- the owner contributed to the business a vehicle worth \$25 000
- \$1 000 was paid off the loan principal
- stock worth \$3 000 was purchased with cash
- \$800 was received from a debtor.

EXERCISE 2.6 TRANSACTIONS AND THE BALANCE SHEET

 page 24

As at 31 March 2015, the assets and liabilities of Pete's Paint Emporium were as follows:

Assets	\$	Equities	\$
Bank	2 300	Creditors	9 000
Debtors	8 000	Wages Owing	2 000
Fixtures and Fittings	18 000		
Delivery Van	25 000		
Stock	24 000	Capital – Pete	?
Total Assets	77 300	Total Equities	77 300

In the first week of April 2015, the following transactions occurred:

- Apr. 1 Paid \$3 000 to a creditor.
 2 Borrowed \$28 000 cash from the NAB, which was used to purchase another van. The loan is to be repaid in monthly instalments of \$1 000, commencing in May 2015.
 3 Received \$2 400 from a debtor.
 4 Pete withdrew \$1 500 worth of paint for his own purposes.
 5 Paid the wages owing.
 6 Pete contributed to the business his personal computer. Pete had paid \$4 600 but its agreed value on this date was \$4 000.

Required

- a **Calculate** Capital as at 31 March 2015.
 b **Explain** why the computer contributed on 6 April 2015 must be valued at \$4 000.
 c **Prepare** a table to show the effect of each transaction on the Balance Sheet of Pete's Paint Emporium.
 * d **Prepare** a classified Balance Sheet for Pete's Paint Emporium as at 6 April 2015.

EXERCISE 2.7 TRANSACTIONS AND THE BALANCE SHEET



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As at 30 September 2015, the assets and liabilities of Sam Booker Liquor were as follows:

Assets	\$	Equities	\$
Debtors	3 000	Bank Overdraft	2 500
Fixtures and Fittings	15 000	Creditors	7 000
Stock	25 000	Loan – ANZ (repayable \$6 000 p.a)	36 000
Fridges	40 000	Capital – Sam	?
Total Assets	83 000	Total Equities	83 000

In the first week of October 2015, the following transactions occurred:

- Oct. 1 Paid \$2 000 to a creditor.
 2 Sam contributed \$5 000 of his own money to the business.
 3 Paid \$3 000 off the loan principal.
 4 Purchased stock on credit for \$10 000.
 5 Sam took \$2 500 of the fixtures and fittings home for personal use.
 6 Paid \$1 200 rent in advance for the next 6 months.

Required

- a **Prepare** a table to show the effect of each transaction on the Balance Sheet of Sam Booker Liquor.
 * b **Prepare** a classified Balance Sheet for Sam Booker Liquor as at 6 October 2015.
 c Referring to your answer to part 'b', **explain** your treatment of Rent paid in advance.

Where are we headed?

After completing this chapter, you should be able to:

- **explain** the role of the General Ledger
- **apply** the rules of double-entry accounting to the General Ledger
- **record** transactions in the General Ledger
- **explain** the role of a cross-reference
- **explain** the relationship between owner's equity and revenues and expenses
- **record** opening balances in the General Ledger
- **record** cash and credit sales of stock in the General Ledger
- **state** the effect of cash and credit sales on the accounting equation
- **foot** ledger accounts
- **prepare** a Trial Balance
- **balance** ledger accounts.

CHAPTER 3

THE GENERAL LEDGER

KEY TERMS

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

- ledger account
- General Ledger
- cross-reference
- Trial Balance
- footing
- balancing.

3.1 LEDGER ACCOUNTS

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

It may have occurred to you that rewriting the accounting equation after every transaction would not be practical for a real, functioning small business. In addition, the accountant or bookkeeper would probably find it very repetitive and boring.

This is particularly the case when we consider that although every transaction will change two items in the accounting equation, there may well be a large number of items that do *not* change. For instance, a credit purchase of stock will increase Stock (asset) and Creditors (liability), but will have no effect whatsoever on Bank, Debtors, Loans or even Capital. There may be many items that do not need to be changed, but they will still need to be rewritten in an updated version of the accounting equation.

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

ledger accounts
accounting records showing all the transactions that affect a particular item

What are ledger accounts?

At its most basic, a ledger account is simply an accounting record (like a page in a book) where transactions are written down, with a separate ledger account (or page) for each item in the firm's records. That is, there will be a ledger account for Bank, and a separate ledger account for each of Stock, Debtors, Creditors, Loans, Capital, etc. If the business has 400 items in its reports, it will need 400 ledger accounts. Collectively, this group of ledger accounts is known as the **General Ledger**.

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

Each individual account will record all increases or decreases in that particular item. For instance, the Bank ledger account will record all movements of cash in and out of the firm's bank account; the Stock ledger account will record all movements of stock in and out of the business; the Creditors Ledger account will record all increases and decreases in what the firm owes to its suppliers.

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

The T-form account

A T-form account is created by dividing the page into two columns. The left-hand column is labelled the debit column (or debit side) and the right-hand column is labelled the credit column (or credit side). Figure 3.1 shows the format of a T-form account.

Figure 3.1 T-form account

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

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

REVIEW QUESTIONS 3.1

- 1 **Explain** the role of a ledger account.
- 2 In reference to ledger accounts, **define** the following terms:
 - General Ledger
 - debit side
 - credit side.

3.2 DOUBLE-ENTRY RECORDING IN LEDGER ACCOUNTS

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

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

Double-entry rules

- 1 Every transaction must be recorded in at least *two* ledger accounts.
- 2 Every transaction must be recorded on the *debit* side of one ledger account and the *credit* side of another.

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

Assets

Asset items appear on the *left* side of the Balance Sheet, so to record an increase in an asset record the transaction on the *debit* side of that ledger account. By the law of opposites, decreases must be recorded on the credit side.

Bank (Asset)

Increases are recorded on the debit side	Decreases are recorded on the credit side
----------------------------------------------------	-----------------------------------------------------

Liabilities and owner's equity

Liabilities and owner's equity items appear on the *right* side of the Balance Sheet, so to record an increase in a liability or owner's equity record the transaction on the *credit* side of that ledger account. By the law of opposites, decreases must be recorded on the debit side.

Creditors (Liability)

Decreases are recorded on the debit side	Increases are recorded on the credit side
----------------------------------------------------	-----------------------------------------------------

Capital (Owner's Equity)Decreases are recorded on the
debit sideIncreases are recorded on the
credit side**REVIEW QUESTIONS 3.2**

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

3.3 RECORDING LEDGER ENTRIES

Let's examine a simple transaction to see how it would be recorded in ledger accounts.

EXAMPLE

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

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

Bank (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1		40 000			

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

Capital (OE)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Jan. 1		40 000

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



The cross-reference

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

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

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

Bank (A)

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

Capital (OE)

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

It is the *amount* (not the cross-reference) that determines whether an account has been debited or credited. In this example, the \$40 000 appears on the left side of the Bank account, so it is this account that has been debited. The cross-reference 'Capital' appears only to show the name of the *other* account affected by that particular transaction.

More examples

Continuing with the ledger accounts used above, the following transactions would be recorded in the ledger accounts as follows:

Jan. 2 Purchased \$12 000 worth of stock on credit

This transaction will increase Stock (asset) and simultaneously increase Creditors (liability). Because **Stock** is an asset (left-hand side of the Balance Sheet), increases must be recorded on the *debit* side of the account. **Creditors**, on the other hand, is a liability (right-hand side of the Balance Sheet), so increases in this account must be recorded on the *credit* side.

(Although it is likely that there will be more than one Stock item, all transactions affecting Stock will be recorded in the same General Ledger account called 'Stock Control'. The same will apply for creditors, which will be recorded in the 'Creditors Control' account, and for debtors using the 'Debtors Control' account.)

Jan. 3 Borrowed \$20 000 from Sunbank

This transaction increases **Bank** (asset) via a *debit* to that account, and also increases **Loan – Sunbank** (liability) via a corresponding *credit* to that account.

Jan. 4 Paid \$15 000 cash for a van to use for business deliveries

Although **Bank** is an asset and would normally appear on the left side of the Balance Sheet, this transaction actually involves a *decrease* to that item. This decrease must therefore be recorded on the *credit* side of the **Bank** account. The increase to assets in the form of the **Van** would be recorded on the *debit* side as usual.

cross-reference
the name of the other account affected by a transaction, so that both accounts affected by a particular transaction can be identified

The ledger accounts in the General Ledger would then appear as shown in Figure 3.2.

Figure 3.2 General Ledger accounts

General Ledger					
Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1	Capital	40 000	Jan. 4	Van	15 000
3	Loan – Sunbank	20 000			

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

Stock Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 2	Creditors Control	12 000			

Creditors Control (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Jan. 2	Stock Control	12 000

Loan – Sunbank (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Jan. 3	Bank	20 000

Van (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 4	Bank	15 000			

Every transaction has been recorded as a *debit* entry in one account, and a *credit* entry in another account, ensuring that the ledger rules are upheld. As stated before, these rules are as follows:

- At least two ledger accounts are affected.
- There is a debit entry and a credit entry for every transaction.

3.4 RECORDING RULES FOR REVENUES AND EXPENSES

The ledger rules for recording revenues and expenses can be determined by referring to their relationship to owner's equity.

Revenue

Revenue represents an *increase* in owner's equity (it is, in fact, part of the definition), so the rules for recording revenue are the same as those for recording an increase in owner's equity. Remember, increases in owner's equity are recorded on the credit side, so to record an *increase* in revenue, record the transaction on the *credit side* of the ledger account. By the law of opposites, decreases must be recorded on the debit side.



Cash Sales (Revenue)

Decreases are recorded on the debit side	Increases are recorded on the credit side
----------------------------------------------------	-----------------------------------------------------

Expenses

Expenses represent a *decrease* in owner’s equity (again, as dictated by the definition), so the rules for recording expenses are the same as those for recording a decrease in owner’s equity. Decreases in owner’s equity are recorded on the debit side, so to record an increase in expenses, record the transaction on the *debit* side of the ledger account. Once again, the law of opposites means decreases must be recorded on the credit side.

Wages (Expense)

Increases are recorded on the debit side	Decreases are recorded on the credit side
----------------------------------------------------	-----------------------------------------------------

STUDY TIP

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

EXAMPLE

Continuing with the earlier example, the following transactions occurred:

- Jan. 5 Received \$600 commission from a publisher
- 6 Paid wages \$1 200

These revenue and expense transactions would be recorded in the General Ledger as is shown in Figure 3.3.

Figure 3.3 General Ledger: recording revenues and expenses

General Ledger

Bank(A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1	Capital	40 000	Jan. 4	Van	15 000
3	Loan – Sunbank	20 000	6	Wages	1 200
5	Commission Revenue	600			

Commission Revenue (R)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Jan. 5	Bank	600

Wages (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 6	Bank	1 200			

Figure 3.4 (on the next page) summarises how to record an increase or decrease in each type of ledger account.

Figure 3.4 Summary of ledger entries

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

Recording procedure

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

- 1 Identify the items/accounts affected. (Remember there will be at least two.)
- 2 Identify what type of accounts they are – A/L/OE/R/E.
- 3 Identify whether they are increasing or decreasing.
- 4 Use the table to identify whether the account should be debited or credited.

This procedure can be followed by completing what is known as an **Analysing Chart**. The Analysing Chart for the six transactions described earlier is shown in Figure 3.5.

Analysing Chart

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

Figure 3.5 Analysing Chart

Date	Accounts affected	Type of account	Increase/Decrease	Debit \$	Credit \$
Jan. 1	Bank	Asset	Increase	40 000	
	Capital	Owner's Equity	Increase		40 000
Jan. 2	Stock Control	Asset	Increase	12 000	
	Creditors Control	Liability	Increase		12 000
Jan. 3	Bank	Asset	Increase	20 000	
	Loan – Sunbank	Liability	Increase		20 000
Jan. 4	Van	Asset	Increase	15 000	
	Bank	Asset	Decrease		15 000
Jan. 5	Bank	Asset	Increase	600	
	Commission Revenue	Revenue	Increase		600
Jan. 6	Wages	Expense	Increase	1 200	
	Bank	Asset	Decrease		1 200

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

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

REVIEW QUESTIONS 3.4

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

3.5 SOME CHALLENGING ENTRIES

Opening balances

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

The assets and equities of Mickelham Frames as at 1 July 2015 were as follows:

Bank	\$ 1 000	Creditors Control	\$ 2 000
Stock Control	4 000	Capital – Malloy	20 000
Shelving	17 000		

EXAMPLE

Even when entering opening balances, a proper double entry must still be recorded, with total debits equalling total credits. Figure 3.6 shows the Analysing Chart to enter these opening balances.

Figure 3.6 Analysing Chart: opening balances

Date	Accounts affected	Type of account	Increase/ Decrease	Debit \$	Credit \$
July 1	Bank	Asset	Increase	1 000	
	Stock Control	Asset	Increase	4 000	
	Shelving	Asset	Increase	17 000	
	Creditors Control	Liability	Increase		2 000
	Capital	Owner's Equity	Increase		20 000

Figure 3.7 shows how these opening balances would be entered in the ledger accounts.

Figure 3.7 General Ledger: opening balances

General Ledger					
Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	1 000			

Stock Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	4 000			

Shelving (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	17 000			

Creditors Control (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 1	Balance	2 000

Capital – Malloy (OE)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 1	Balance	20 000

STUDY TIP

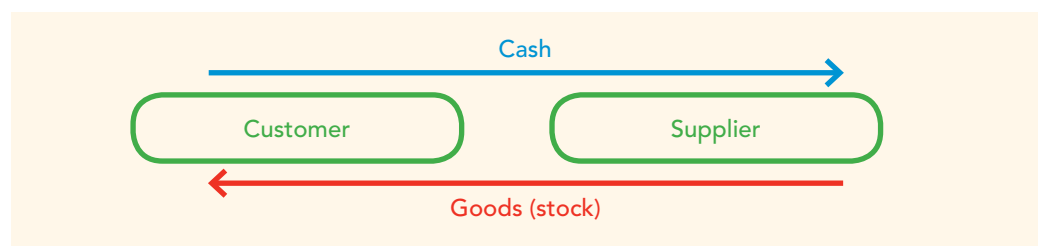
If the capital figure is not given, it can always be calculated using the accounting equation: $OE = A - L$.

Cash sales (of stock)

Most of the entries that have been dealt with to date have had only two effects on the ledger accounts: one debit entry and one credit entry. The sale of stock – whether for cash or on credit – is more complicated because it requires two double entries.

The simple mechanics of a cash sale involve the business receiving the **cash**, and the customer receiving the **goods**. But the cash and the goods will be valued differently: the cash will be for the **selling price**, while the stock will be valued at **cost price**. In fact, it is the difference between these two amounts that creates a Gross Profit from the sale. For example, goods purchased for \$320 may be sold for \$590 (earning \$270 Gross Profit). Because there are two prices to record, there are two double entries to record.

Figure 3.8 Cash sale of stock



A cash sale will increase **Bank**, which must be recorded as a debit to this account. The credit entry comes from recognising the source of that increase; that is, the **Sales** revenue earned. This transaction will be recorded at the **selling price**.

In addition, a sale of stock will decrease **Stock Control** (by crediting this account). In effect, this stock has been consumed, so an expense must be recognised to record the value of the stock consumed or sold. This expense is called **Cost of Sales**. This transaction will be recorded at **cost price**.

July 7 Sold stock for \$590 cash (cost price \$320).

EXAMPLE

Figure 3.9 shows how this sale would be entered in the ledger accounts.

Figure 3.9 Analysing Chart: cash sale

Date	Accounts affected	Type of account	Increase/Decrease	Debit \$	Credit \$
July 7	Bank	A	Increase	590	
	Sales	R	Increase		590
	Cost of Sales	E	Increase	320	
	Stock Control	A	Decrease		320

When stock is sold, the asset (**Stock Control**) becomes an expense (**Cost of Sales**). In other words, the stock is no longer a *future* economic benefit, because its value has been *consumed*.

The cash sale would be posted to the General Ledger as shown in Figure 3.10.

Figure 3.10 General Ledger: cash sale

General Ledger

Bank (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	1 000			
7	Sales	590			

Sales (R)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 7	Bank	590

Stock Control (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	4 000	July 7	Cost of Sales	320

Cost of Sales (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 7	Stock Control	320			

Effect on the accounting equation

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

	Increase/Decrease/No effect	Amount \$
Assets	Increase (increase Bank \$590, decrease Stock Control \$320)	270
Liabilities	No effect	
Owner's Equity	Increase (Sales \$590 less Cost of Sales \$320 = Profit)	270

Credit sales

A credit sale is one where the customer takes the goods but promises to pay at a later date. As with a cash sale, a credit sale is 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 fact that cash has not been received does not mean that a credit sale is not revenue. The only difference is that for a cash sale, the increase in assets is in the form of cash (Bank), whereas for a credit sale, the asset is in the form of an amount owed by debtors (Debtors Control).

EXAMPLE

July 12 Sold goods on credit for \$720 (cost price \$480)

Figure 3.11 shows how this sale would be entered in the ledger accounts.

Figure 3.11 Analysing Chart: recording a credit sale

Date	Accounts affected	Type of account	Increase/Decrease	Debit \$	Credit \$
July 12	Debtors Control	A	Increase	720	
	Sales	R	Increase		720
	Cost of Sales	E	Increase	480	
	Stock Control	A	Decrease		480

Credit sales should be recognised as revenue in the Reporting Period when the sale is made, because it is at this point that the inflow of future economic benefits – in the form of the increased amount owed by the debtors – occurs, and as a consequence the revenue is earned. Failing to include credit sales as revenue would be omitting from the Income Statement an important and *Relevant* piece of information.

Effect on the accounting equation

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

	Increase/Decrease/No effect	Amount \$
Assets	Increase (increase Debtors Control \$720, decrease Stock Control \$480)	240
Liabilities	No effect	
Owner's Equity	Increase (Sales \$720 less Cost of Sales \$480 = Profit)	240

Receipts from debtors

The most common error in recording cash received from a debtor is to treat it as additional revenue, rather than as simply the swapping of one asset (**Debtors Control**) 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 – when it was earned; that is, at the point of sale, when the goods were provided to the customer.

Figure 3.12 shows how this receipt from a debtor would be entered in the ledger accounts.

July 24 \$500 was received from a debtor

EXAMPLE

Figure 3.12 Analysing Chart: receipt from a debtor

Date	Accounts affected	Type of account	Increase/ Decrease	Debit \$	Credit \$
July 24	Bank	A	Increase	500	
	Debtors Control	A	Decrease		500

The credit sale *and* the receipt from the debtor would be posted to the General Ledger as shown in Figure 3.13.

Figure 3.13 General Ledger: credit sale and receipt from a debtor

General Ledger Bank (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	1 000			
7	Sales	590			
24	Debtors Control	500			

Debtors Control (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	3 000	July 24	Bank	500
12	Sales	720			

Sales (R)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 7	Bank	590
			12	Debtors Control	720

Stock Control (A)

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

Figure 3.13 (cont.) General Ledger: credit sale and receipt from a debtor

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

Drawings

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

EXAMPLE

July 28 Owner withdrew \$650 in cash
 July 31 Owner took home stock worth \$1200

Figure 3.14 shows how these drawings would be entered in the ledger accounts.

Figure 3.14 Analysing Chart: drawings

Date	Accounts affected	Type of account	Increase/ Decrease	Debit \$	Credit \$
July 28	Drawings	- OE	Increase	650	
	Bank	A	Decrease		650
31	Drawings	- OE	Increase	1 200	
	Stock Control	A	Decrease		1 200

These entries would be posted to the General Ledger as shown in Figure 3.15.

Figure 3.15 General Ledger: drawings

General Ledger					
Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	1 000	July 28	Drawings	650
7	Sales	590			
24	Debtors Control	500			

Stock Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	4 000	July 7	Cost of Sales	320
			12	Cost of Sales	480
			31	Drawings	1 200

Drawings (– OE)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 28	Bank	650			
31	Stock Control	1 200			

Total drawings – in this case \$1 850 (\$650 cash and \$1 200 worth of stock) – is then reported in the Balance Sheet under the heading 'Owner's equity', but as a *deduction* from Capital, as is shown in Figure 3.16.

Figure 3.16 Balance Sheet: owner's equity

Balance Sheet (extract) as at 30 June 2015

Owner's Equity	\$	\$
Capital	30 000	
Plus Net Profit	<u>5 400</u>	
	35 400	
Less Drawings	<u>1 850</u>	33 550

REVIEW QUESTIONS 3.5

- 1 **Show** the debit and credit entries necessary to record:
 - a cash sale (stock)
 - a credit sale (of stock)
 - a receipt from a debtor
 - cash drawings.
- 2 **Explain** why a receipt from a debtor does **not** increase profit.

3.6 THE TRIAL BALANCE

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

Footing an account

Footing is the process of calculating the balance of an account, and involves the following steps:

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

This **balance** should not be written in the same column as the other amounts, because this risks inadvertently (and incorrectly) counting it as an entry. The balance should be written in the cross-reference section to make it clear that it is not an *entry*, but the *balance* of the account. Figure 3.17 shows how the Bank account would be footed:

Trial Balance

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

footing

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

Figure 3.17 Footing an account

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
March 1	Balance	12 500	March 3	Wages	4 000
15	Cash Sales	6 000	12	Rent	9 000
22	Debtors Control	3 400	25	Drawings	6 250
	2 650				
		21 900			19 250

The balance of the Bank account is \$2 650 (on the debit side).

Once all the accounts have been footed, the balances are listed in two columns: one for Debit balances, and one for Credit balances. The columns are then totalled and – if the ledger recording is correct – the totals should be the same. Figure 3.18 shows the Trial Balance for Clack's Shoe Shop as at 31 March 2015:

Figure 3.18 Trial Balance

CLACK'S SHOE SHOP (PROP. G. CLACK)
Trial Balance as at 31 March 2015

Account	Debit	Credit
Bank	2 650	
Stock Control	24 700	
Debtors Control	8 900	
Shop Fittings	33 100	
Creditors Control		6 500
Loan – KH Bank		40 000
Capital – Clack		19 450
Sales		13 000
Cost of Sales	5 600	
Rent	1 500	
Wages	2 100	
Advertising	400	
Totals	78 950	78 950

Errors revealed

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

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

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

Errors not revealed

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

- A transaction has been *omitted* altogether.
- The debit and credit entries have been *reversed*. (For example, instead of recording a payment to a creditor by debiting Creditors Control and crediting Bank, the entry is erroneously recorded as a debit to Bank and a credit to Creditors Control.)
- The transaction has been recorded in the *wrong ledger accounts*. (For example, instead of recording the payment of wages as a debit to the Wages account, the transaction is incorrectly debited to Rent.)
- An *incorrect amount* is recorded on both sides of the ledger.

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

REVIEW QUESTIONS 3.6

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

3.7 BALANCING

Footing is an informal process that can be done to any account at any time to determine its balance. But at the end of the reporting period, asset, liability and owner's equity accounts must be formally ruled off, and their balance carried forward to the next period, so that their balances can be reported in the Balance Sheet.

Balancing procedure

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

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

STUDY TIP

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

balancing

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

Steps for balancing

Balancing an account involves the following steps:

- 1 Total the amounts on each side, and write the **larger of these two totals on both sides**. In the example below, the transactions on the debit side add up to \$21 900, and the transactions on the credit side add up to only \$19 250, so **\$21 900** is written on *both sides*. This figure should be 'ruled off' with a double line to indicate that in that reporting period there are no more transactions that affect the account. This is not the *balance* of the account: it is the *total*. At this point, the amounts on only one side – in this case the debit side – will add up to this total of **\$21 900**.
- 2 Calculate the **balance** by deducting the total of the smaller side from the total of the account. In the example, this is,
\$21 900 (total) – 19 250 (smaller side) = \$2 650 (balance).
- 3 Enter this balance as a proper ledger entry with a matching debit and credit **above the total on the smaller side and below the total on the larger side**. This entry 'carries forward' the balance from the end of one reporting period to the start of the next. This is why in the example the date is given as March 31 *above* the total but as April 1 *below*.

Figure 3.19 shows the 'Bank' account after it has been balanced.

Figure 3.19 'Balancing' an account

Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
March 1	Balance	12 500	March 3	Wages	4 000
15	Cash Sales	6 000	12	Rent	9 000
22	Debtors Control	3 400	25	Drawings	6 250
			31	Balance	2 650
		21 900			21 900
April 1	Balance	2 650			

STUDY TIP

Compare this 'balanced' account with the 'footed account in Figure 3.17. The balance of the account is the same, but this account has been more formally completed.

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

REVIEW QUESTION 3.7

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



WHERE HAVE WE BEEN?

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



EXERCISE 3.1 RECORDING IN THE GENERAL LEDGER



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EXERCISES

Jane Green is an ex grounds-keeper who has just gone into business for herself selling lawn seed, operating under the name Reap and Sow. Her transactions for the first week of May 2015 are shown below:

May	1	Contributed \$40 000 cash to commence business
	2	Rented a small office, paying \$500 rent for May 2015
	3	Purchased stock worth \$8 000 on credit from Lush Lawnseed
	4	Paid \$3 000 for office furniture
	5	Paid \$150 for advertising in the local paper
	6	Jane contributed to the business her personal computer (agreed value \$1 200)

Required

- Prepare** an Analysing Chart to show the double entry required to record each entry in the General Ledger of Reap and Sow.
- Record** the transactions for the first six days of May 2015 in the General Ledger of Reap and Sow.
- Referring to one accounting principle, **explain** why the transaction on 6 May 2015 must be recorded in the accounts of the business.

EXERCISE 3.2

RECORDING IN THE GENERAL LEDGER



page 30

Phil Meecup just commenced business as Quick Perk, a company that sells coffee machines. The following transactions occurred during the first week of November 2015:

- | | | |
|------|---|------------------------------------------------------------------------|
| Nov. | 1 | Phil contributed \$25 000 cash to commence business |
| | 2 | Purchased premises for \$140 000 using a mortgage from the Bank of RLM |
| | 3 | Purchased stock worth \$50 000 on credit from NewCaffe Supplies |
| | 4 | Paid wages to office manager \$1 900 |
| | 5 | Phil withdrew \$1 000 cash for personal use |
| | 6 | Paid \$4 000 for advertising that will not begin until December 2015 |
| | 7 | Paid NewCaffe Supplies \$1 500 |

Required

- a Prepare** an Analysing Chart to show the double entry required to record each entry in the General Ledger of Quick Perk.
- b Record** the transactions for the first week of November 2015 in the General Ledger of Quick Perk.
- c Referring** to the definitions, **explain** why the advertising should be recognised as a current asset as at 7 November 2015.

EXERCISE 3.3

CASH SALES IN THE GENERAL LEDGER



page 32

Melita Anogra just opened Melita Mows, a shop specialising in the sale of mowers. The firm's transactions for the first week of January 2015 showed the following:

- | | | |
|------|---|--------------------------------------------------------------------------------------------------|
| Jan. | 1 | Contributed capital to commence business – \$15 000 cash and one vehicle \$22 000 (agreed value) |
| | 2 | Paid rent of \$600 for January 2015 |
| | 3 | Purchased stock on credit for \$45 000 from Havanna Mowers |
| | 4 | Sold one mower for \$700 cash (cost price \$500) |
| | 5 | Paid wages of assistant \$150 |
| | 6 | Sold two mowers for \$700 cash each (cost price \$500) |
| | 7 | Paid \$2 500 to Havanna Mowers |

Required

- a Explain** why the vehicle contributed on 1 January 2015 must be valued at its agreed value.
- b Prepare** an Analysing Chart to show the double entry required to record each entry in the General Ledger of Melita Mows.
- c Record** the transactions for the first week of January 2015 in the General Ledger of Melita Mows.
- d State** the effect on the accounting equation of the transaction on 4 January 2015.
- e Calculate** Gross Profit for Melita Mows for the first week of January 2015.

EXERCISE 3.4

CASH AND CREDIT SALES IN THE GENERAL LEDGER



page 35

Kim Swood just opened her own spare parts shop called Monaro Motors. Transactions for August 2015 showed the following:

- Aug. 1 Capital contribution of \$10 000 stock (agreed value) and \$30 000 cash
 2 Purchased premises worth \$150 000 paying a \$10 000 cash deposit with the balance funded by a mortgage from QV Bank
 3 Cash sale of parts for \$400 (cost price \$200)
 4 Paid \$2 500 cash to Wilson Fittings for shelving
 5 Purchased stock on credit from HolFord Parts for \$2 600
 6 Sold parts on credit to Lemon Rentals for \$900 (cost price \$450)
 7 Paid wages of apprentice \$600
 8 Kim Swood took home stock worth \$1 500
 9 Received \$500 cash from Lemon Rentals

Required

- a Prepare** an Analysing Chart to show the double entry required to record each transaction in the General Ledger of Monaro Motors.
b Record the transactions for August 2015 in the General Ledger of Monaro Motors.
 * **c Foot** the accounts and **prepare** a Trial Balance as at 9 August 2015.
d State one error that would cause the Trial Balance to **not** balance.
e Referring to the definitions, **explain** why the receipt of cash from Lemon Rentals on 9 August 2015 should **not** be reported as revenue.
f State the effect on the accounting equation of Monaro Motors if the transaction on 6 August 2015 had **not** been recorded.

EXERCISE 3.5

OPENING BALANCES IN THE GENERAL LEDGER



Finoula O'Riley owns a small shop called Hot Doggies that sells dog-grooming products. Finoula has been operating for three years, but on 1 June 2015 decided to adopt a double-entry recording system. Her opening account balances on 1 June 2015 were Bank \$1 500, Stock Control \$5 000, Debtors Control \$8 000, Shelving \$16 000 and Capital – O'Riley \$30 500.

Transactions for June 2015 showed the following:

- June 1 Received \$2 000 cash from a debtor (Lynx) for stock sold in May 2015
 2 Finoula contributed her laptop to the business (agreed value \$2 500)
 3 Stock was sold on credit to Allendale Kennels for \$1 000 (cost price \$650)
 4 Paid wages \$900
 5 Purchased stock worth \$1 900 on credit from Laminar Products
 6 Cash sales of \$120 (cost price \$80)
 7 Received \$500 from Allendale Kennels
 8 Purchased extra shelving for \$3 200 cash
 9 Cash sales of \$230 (cost price \$150)
 10 Paid \$70 for repairs to some of the old shelving
 11 Stock was sold on credit to Joanie's Dog Wash for \$500 (cost price \$380)
 12 Paid wages \$900

Required

- a Record** the opening balances in the General Ledger of Hot Doggies.
b Record the transactions for June 2015 in the General Ledger of Hot Doggies.
c Referring to one accounting principle, **explain** why the cash received from Lynx on 1 June 2015 should **not** be reported as revenue for June 2015.
d State the purpose of a Trial Balance.
 * **e Foot** the accounts and **prepare** a Trial Balance for Hot Doggies as at 12 June 2015.

EXERCISE 3.6

OPENING BALANCES IN THE GENERAL LEDGER

 page 43

Paul McMartin is the owner/operator of Bright Camping, a business that sells camping gear. On 1 October 2015, Paul decided to adopt a double-entry recording system. The firm's balances on that date were as follows: Stock Control \$70 000, Debtors Control \$34 000, Shop Fittings \$17 000, Premises \$100 000, Loan – Highland Bank \$90 000, Creditors Control \$51 000 and Bank Overdraft \$1 000.

The transactions for October 2015 were as follows:

- | | | |
|------|----|-----------------------------------------------------------------------------------------------------------------------------------|
| Oct. | 1 | Sold stock on credit to Sleepy Hollow Caravan Park for \$10 000 (cost price \$5 000) |
| | 2 | Purchased new shop fittings for \$5 000 – 10% paid in cash with the remainder financed by a short-term loan from Pukah Credit Co. |
| | 3 | Received \$8 000 cash from a debtor (Milawa Adventures) |
| | 4 | Cash sales of \$2 000 (cost price \$1 000) |
| | 5 | Paul paid \$130 for the firm's advertising using a personal cheque |
| | 6 | Purchased stock on credit from Hardy Camp Gear for \$12 000 |
| | 7 | Paid wages of \$700 |
| | 8 | Received \$4 000 cash from Sleepy Hollow |
| | 9 | Sold stock on credit to High Peak Adventures for \$3 500 (cost price \$1 750) |
| | 10 | Paid \$7 000 to a creditor – Jillaroo's Choice |

Required

- a **Record** the opening balances in the General Ledger of Bright Camping.
 - b **Record** the transactions for October 2015 in the General Ledger of Bright Camping.
 - c **Explain** the importance of a cross-reference when recording transactions in ledger accounts.
- * d **Foot** the accounts and **prepare** a Trial Balance for Bright Camping as at 10 October 2015.
- e **State** two errors in the General Ledger that will *not* be detected by a Trial Balance.

EXERCISE 3.7

IDENTIFYING TRANSACTIONS

 page 47

Mira Van Sanden is a photographer who owns and operates a shop in Melbourne called Perfect Photographs. The firm's General Ledger for December 2015 showed the following:

Bank (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 1	Balance	1 000	Dec. 3	Office Equipment	100
2	Sales	900	6	Repairs	150
7	Debtors Control	300			

Stock Control (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 1	Balance	5 000	Dec. 2	Cost of Sales	600
8	Creditors Control	800	5	Cost of Sales	400

Debtors Control (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 1	Balance	1 700	Dec. 7	Bank	300
5	Sales	600			

Office Equipment (A)

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

Creditors Control (L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Dec. 1	Balance	1 100
			8	Stock Control	800

Capital (OE)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Dec. 1	Balance	10 600

Sales (R)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Dec. 2	Bank	900
			5	Debtors Control	600

Drawings (- OE)

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

Cost of Sales (E)

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

Repairs (E)

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

Required

- a Using the General Ledger, **describe** each transaction (in date order).
 - b **Calculate** the rate of mark-up that is applied to stock.
- * c **Prepare** a Trial Balance for Perfect Photographs as at 8 December 2015.

On 9 December 2015, Mira paid \$200 for office expenses. The transaction was posted into the General Ledger as follows:

Ledger account	Debit \$	Credit \$
Office Equipment	200	
Bank		200

- d State** whether the Trial Balance would identify this error. **Justify** your answer.
- e State** the effect on the accounting equation of Perfect Photographs if this error was **not** corrected.
- f Show** the debit and credit entries necessary to correct this error.

EXERCISE 3.8 TRANSACTIONS TO REPORTS

 page 49

Turning Points is a firm that sells exercise machinery. Its owner, Tracey Nicole, has decided to adopt a double-entry recording system. At 1 July 2015, the firm's assets and liabilities were as follows:

Bank	\$ 1 200
Stock Control	52 000
Debtors Control	2 000
Office Equipment	10 900
Premises	190 000
Creditors Control	7 500
Mortgage – JH Finance	85 000

The firm's transactions for July 2015 showed the following:

July	1	Cash sale to R. Donnegan (cost price \$400)	\$ 800
	3	Paid for electricity	450
	6	Credit sales to Lowdown Gym (cost price \$2 700)	5 400
	7	Purchased stock on credit from Havilland Machines	4 000
	9	Paid wages	500
	11	Credit sales to St Martin's Hospital (cost price \$3 500)	7 000
	14	Received cash from Walkers' World for goods sold in June 2015	1 600
	17	Paid cash to Havilland Machines	1 000
	19	Made monthly payment on mortgage (including \$200 interest)	700
	20	Tracey took home an exercise machine for her son	600
	23	Paid wages	500
	25	Cash sale to J. Notts (cost price \$290)	580
	27	Received cash from Lowdown Gym	5 400
	31	Paid in advance for six months' advertising, which will begin in August 2015	6 000

Required

- a Calculate** Tracey's capital as at 1 July 2015.
- b Record** the opening balances in the General Ledger of Turning Points.
- c Record** the transactions for July 2015 in the General Ledger of Turning Points.
- * **d Balance** the accounts (where appropriate) and **prepare** a Trial Balance as at 31 July 2015.
- e State** the effect on the accounting equation of Turning Points if the transaction on 20 July 2015 was **not** recorded.
- f** Referring to one accounting principle, **explain** why the transaction on 14 July 2015 is **not** considered to be revenue for July 2015.
- * **g Prepare** an Income Statement for Turning Points for July 2015.
- * **h Prepare** a classified Balance Sheet for Turning Points as at 31 July 2015.
- i** Referring to one qualitative characteristic, **explain** why the advertising must be reported in the Balance Sheet as at 31 July 2015.

Where are we headed?

After completing this chapter, you should be able to:

- **explain** the effect of the Goods and Services Tax (GST) on the accounting system of a small business
- **explain** the role of the GST Clearing account
- **explain** the circumstances in which a GST refund and GST settlement will occur
- **explain** the role of source documents in the accounting process, including their relationship to the accounting principles and qualitative characteristics
- **identify and record** transactions verified by a:
 - cash receipt
 - cheque butt
 - sales invoice
 - purchase invoice
 - memo.
- **identify and explain** the role of a statement of account and an order form
- **identify** the effect of GST on the recording of cash and credit sales and purchases, and on the accounting equation
- **report** GST Clearing in the Balance Sheet.

CHAPTER 4

THE GOODS AND SERVICES TAX (GST)

KEY TERMS

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

- Goods and Services Tax (GST)
- source documents
- cash receipt
- cheque butt
- sales invoice
- purchase invoice
- memo
- statement of account
- order form.

Goods and Services Tax (GST)

a 10% tax levied by the federal government on most purchases of goods (excluding fresh food) and services

4.1 THE GOODS AND SERVICES TAX (GST)

The introduction of the **Goods and Services Tax (GST)** in July 2000 meant that in addition to being trading operations, a number of small businesses became tax collectors for the Australian Tax Office (ATO). Under the GST – which applies to most goods (except fresh food) and services – the federal government charges consumers a tax of 10% of the price of whatever they have purchased. This means the business that sells the good/service must charge and collect from the customer the selling price *plus* an amount for GST. The GST amount is then transferred to the ATO by the business at a later date.

When a business charges its customers GST, it does so on behalf of the government. As a result, any *GST on sales* creates a liability – an amount of GST owed to the ATO. If the business has been charged any GST by its suppliers, it is allowed to deduct this *GST on purchases* from its GST liability. The GST on its purchases will be forwarded to the ATO by the firm's suppliers, so it is treated as if the business had actually paid the GST straight to the government.

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

Recording GST

All transactions involving GST are recorded in a new ledger account called 'GST Clearing', which can either be a current liability or a current asset.

GST liability

Because selling prices are usually higher than cost prices, in most cases *the GST on sales will be greater than the GST on purchases*, so the business will have a *current liability* in relation to GST. This means that, overall, the business will owe GST to the ATO, which it will pay when it makes a GST settlement.

GST asset

If the business makes a bulk order of stock (which it has not sold) or purchases an expensive non-current asset, then its *GST on purchases could be greater than its GST on sales*, so the business will have a *current asset* in relation to GST. This means the business will be owed GST by the ATO, which it will receive in the form of a GST refund.

REVIEW QUESTIONS 4.1

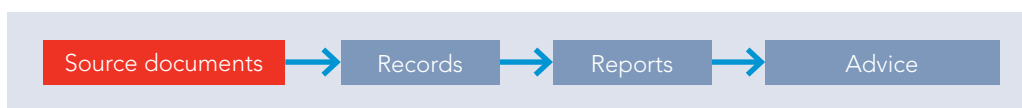
- 1 **Define** the term 'Goods and Services Tax (GST)'.
- 2 **Explain** why GST on sales creates a GST liability.
- 3 **Explain** why GST on purchases leads to a reduction in any GST liability.
- 4 **State** the role of the GST Clearing account.
- 5 **Explain** why most small business will end up with a GST liability at the end of the period.
- 6 **State** two ways a small business could end up being owed a GST refund by the ATO.

4.2 SOURCE DOCUMENTS

The exercises in Chapter 3 (involving recording transactions in the ledger) were generally presented as a list, with the date and details of the transaction spelt out clearly. This is not a luxury afforded to bookkeepers in real businesses. In a functioning business, the information would be contained on the **source documents**, and part of the job of the bookkeeper would be to sort the documents, and decipher the information they contain.

Source documents come in a variety of shapes and sizes, but have in common one essential quality: they provide the evidence, or proof, that a transaction has occurred. In fact, source documents are the first stage in the accounting process (see Figure 4.1), and provide the facts and details on which all subsequent accounting information will be based.

Figure 4.1 The accounting process



Because source documents provide the evidence of the details of every transaction, they are integral in ensuring that accounting reports contain information that is *reliable*, or free from errors, bias and subjectivity.

Source documents and the GST

Because 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 good/service provided
- the price of the transaction, including the GST
- the amount of the GST.

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

Calculating GST

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

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

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

Figure 4.2 Calculating GST and total price (including GST)

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

source documents
printed or electronic documents that provide evidence that a transaction has occurred, and the details of the transaction itself

STUDY TIP

Use this method when a question says 'plus GST'.

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

STUDY TIP

Use this method when a question says 'including GST'.

Figure 4.3 Calculating GST or selling price from total price

	Total price (including GST)	=	Selling price ($\frac{10}{11}$ of total price)	+	GST ($\frac{1}{11}$ of total price)
Example	\$385	=	\$350	+	\$35

REVIEW QUESTIONS 4.2

- 1 Referring to one qualitative characteristic, **explain** the role of source documents in the accounting process
- 2 **List** the information that must be shown on a source document that includes GST.
- 3 **Show** how the GST will affect the calculation of:
 - total price when given selling price
 - selling price/GST when given total price.

4.3 CASH INFLOWS AND CASH RECEIPTS

When cash is received, the business will issue a **cash receipt** to the customer, and keep a copy of the receipt for its own records. The cash receipt can be hand-written, or generated electronically or by a cash register. Some smaller businesses will not issue an individualised receipt to every customer, preferring instead to issue only a cash register receipt, and rely on the summary generated by the register to verify the cash received in a single day's trading. Regardless of the type of receipt issued, it should contain all the information necessary to account for the GST, plus a receipt number for easy identification and verification.

cash receipt

a source document used to verify cash received

Cash sales and the GST

At the time a cash sale is made, the business will receive the cash for the goods, plus the GST on the sale, and this must be documented on a cash receipt. The GST does not affect the sales revenue earned, or the cost of the stock sold; instead, it is an additional amount collected on behalf of, and therefore owed to, the ATO.

EXAMPLE

On 7 April 2015, Snaps Photographic Equipment sold a Menolta camera to J. Mortlock for \$400 plus \$40 GST (Rec. 17). The camera had a cost price of \$250.

The cash receipt that provides evidence of this cash sale is shown in Figure 4.4.

Figure 4.4 Cash receipt (hand-written): cash sale

 **Snaps Photographic**
Equipment 22 Grace St, Essendon VIC 3041 **TAX INVOICE**

ABN: 11 049 411 049

Date: 7/4/2015 Receipt: 17

Received from: J. Mortlock

The sum of: Four hundred dollars plus
forty dollars GST

Being for: Cash sale - Menolta camera

Amount: \$440.00

Signed: J. Buckley

Such a receipt could easily be generated electronically, as is shown in Figure 4.5.

Figure 4.5 Cash receipt (electronically generated): cash sale

 **Snaps Photographic**
Equipment 22 Grace St, Essendon VIC 3041 **TAX INVOICE**

ABN: 11 049 411 049

Date: 7/4/2015 Receipt: 17

Received from: J. Mortlock

For: Cash sale of 1 Menolta camera

Amount: \$440.00 (incl. \$40.00 GST)

Exactly the same information is provided on both versions:

- the words 'tax invoice'
- the date of the transaction (7/4/2015)
- the receipt number (17)
- the name and ABN of the seller (Snaps Photographic Equipment, 11 049 411 049)
- a description of what has been sold (one Menolta camera)
- the selling price inclusive of the GST (**\$440**). This is the amount of cash received.
- the amount of the GST (**\$40**). This means the selling price of the camera is **\$400**.

Note that the cost price of the sale (**\$250**) is not shown because we do not want to disclose our mark-up to the buyer!

Identifying sales revenue

Both of the preceding documents identify the total cash of **\$440** that Snaps Photographic Equipment has received from the customer. Because the total cash received includes **\$40 GST** on the sale (which is collected on behalf of, and therefore owed to, the ATO), not all of this **\$440** can be recorded as **sales revenue**: only **\$400** can be counted as sales revenue earned by Snaps Photographic Equipment.

This sales revenue figure is identified differently in the preceding documents. Whereas Figure 4.4 separately identifies the sales revenue of **\$400**, in Figure 4.5 this amount must be calculated by deducting the GST (**\$40**) from the total amount received (**\$440**).

Recording a cash sale with GST

Had we recorded the cash sale of the camera *without* GST, the debits and credits in the ledger accounts would have been:

DR	Bank	\$400	
CR	Cash Sales		400
DR	Cost of Sales	250	
CR	Stock Control		250

Now that GST is involved, the process to record a cash sale in the ledger must be amended, but only a little. The **cost price** of the sale is not affected at all, and neither is the amount of **sales revenue** earned. However, the amount debited to **Bank** will increase, because the business will receive not only the **\$400** for the sale, but also **\$40 GST**. As a result, the debits and credits to record a cash sale with GST would be:

DR	Bank	\$440	
CR	Cash Sales		400
CR	GST Clearing		40
DR	Cost of Sales	250	
CR	Stock Control		250

This entry would be recorded in the General Ledger as shown in Figure 4.6.

Figure 4.6 General Ledger: recording a cash sale with GST

General Ledger					
Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 1	Balance	1 000			
7	Sales/GST Clearing	440			

Sales (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			April 7	Bank	400

GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			April 7	Bank	40

Stock Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 1	Balance	15 000	April 7	Cost of Sales	250

Cost of Sales (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 7	Stock Control	250			

The cross-reference in the Bank account refers to both Sales and GST Clearing, because the cash received consists of part sales and part GST. The entry on the credit side of the GST Clearing account shows the liability owed to the ATO for the tax collected by the business, which the business must forward to the ATO at some time in the future.

Effect on the accounting equation

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

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

Other cash inflows

Cash receipts should be issued every time cash is received, whether it is for a cash sale, a receipt from a debtor, a capital contribution or some other source. The only exceptions are when cash is deposited directly into the business's bank account, in which case the source document might simply be the bank statement.

Figure 4.7 shows the cash receipt to provide evidence of a receipt from a debtor:



Figure 4.7 Cash receipt: receipt from a debtor

In this case, the reason for the receipt refers to 'settlement of account', indicating that the cash has been received from a debtor (Moondance Club) to settle the amount outstanding. It is also important to identify the name of the debtor from whom the cash is received. (This allows the transaction to be recorded in the Debtors Ledger. This will be explained in Chapter 5.)

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. In fact, a receipt from a debtor is just one of the cash inflows that is not subject to GST, with others including:

- interest revenue
- capital contributions
- loans.

STUDY TIP

In the VCE Accounting Study Design, transactions that are subject to GST will be identified, but the amount may not be.

REVIEW QUESTIONS 4.3

- 1 **State** the source document used to verify cash received.
- 2 **Show** the debit and credit entries necessary to record a cash sale with GST.
- 3 **Explain** why the GST received on a cash sale increases the GST liability.
- 4 **List** three different transactions for which a cash receipt may be issued.
- 5 **Explain** why there is no GST to account for when cash is received from a debtor.

4.4 CASH OUTFLOWS AND CHEQUE BUTTS

Despite the rising prominence of online banking, there are still a number of situations in which it is necessary, and perhaps even desirable, for a business to pay by cheque. The main benefits of paying by cheque include:

- *security* – paying by cheque avoids the risks of carrying large sums of cash, and the danger of theft this entails
- *traceability* – cheques must be deposited into a bank account, meaning it is possible to trace the eventual recipient of the funds
- *verifiability* – all payments made by cheque are recorded on the cheque butt, providing a source document to verify the transaction.

As the cheque itself is given as payment, it is the **cheque butt** that will be retained by the business as evidence of the cash it has paid. Even if a cheque is cancelled, the cheque butt should still be completed to verify that the cheque has not been stolen.

cheque butt
a source document used
to verify cash payments

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 must be documented on the cheque butt. The GST paid does not change the value of what is purchased – it will decrease the GST liability.

On 14 April 2015, Snaps Photographic Equipment paid **\$1 320** for 12 months' insurance: **\$1 200** plus **\$120** GST (Ch. 245).

EXAMPLE

The cheque butt that provides evidence of this payment is shown in Figure 4.8.

Figure 4.8 Cheque butt

Pig-e-Bank Australia ABN 49 100 001 222

Date... 14th April 2015

To... AGI Insurance

For... Yearly insurance
\$1 200 (+\$120 GST)

Bal c/fwd \$.....

Deposits \$.....

Amount... \$1 320.00

Balance \$.....

CHQ No. 245

This cheque butt provides all the information we need to record the transaction, but to satisfy the ATO, we would also need to keep the tax invoice issued by the supplier.

Recording a cash payment with GST

Had we recorded the cash payment for insurance *without* GST, the debits and credits in the ledger accounts would have been:

DR	Prepaid Insurance	\$1 200		
CR	Bank		1 200	

Note that the debit entry is to an asset account called Prepaid Insurance. The insurance is yet to be incurred, so it is a *future* economic benefit.

With GST involved, the amount of cash paid will increase. The business must pay \$1 200 for the insurance, plus \$120 GST. This means **Bank** will decrease by **\$1 320** in total. As a result, the debits and credits to record a cash payment with GST would be:

DR	Prepaid Insurance	\$1 200		
DR	GST Clearing	120		
CR	Bank		1320	

This entry would be recorded in the General Ledger as is shown in Figure 4.9.

Figure 4.9 General Ledger: cash payment with GST

General Ledger					
Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 1	Balance	1 000	April 14	Prepaid Insurance/ GST Clearing	1 320
7	Sales/GST Clearing	440			

Prepaid Insurance (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 14	Bank	1 200			

GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 14	Bank	120	April 7	Bank	40

Once again, the cross-reference in the Bank account refers to both *Prepaid Insurance* and *GST Clearing* as both amounts have been paid. Although the GST is paid to the supplier (which in this case is AGI Insurance), that supplier is then obliged to forward the GST to the ATO. This means the business has effectively paid some of its GST liability to the ATO but via the insurance company. Consequently, the GST paid is debited to the GST Clearing account to reduce the GST owed to the ATO.

Effect on the accounting equation

This cash payment for Prepaid Insurance with GST has the following effect on the accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (decrease Bank \$1320, increase Prepaid Insurance \$1200)	120
Liabilities	Decrease (GST Clearing)	120
Owner's Equity	No effect	

Other cash outflows

Cheques should be used to make payments for most cash outflows, such as wages, insurance, rent, advertising, payments to creditors, and drawings. Figure 4.10 shows the cheque butt to provide evidence of a payment to a creditor.

Figure 4.10 Cheque butt: payment to a creditor

Pig-e-Bank Australia ABN 49 100 001 222

Date... 30th April 2015

To... Pentacks Cameras

For... Settlement of account

Bal c/fwd \$.....

Deposits \$.....

Amount \$600.00

Balance \$.....

CHQ No. 253

On a cheque butt, **settlement of account** indicates that the cash has been paid to a creditor (in this example, Pentacks Cameras) to settle the amount outstanding. The name of the creditor to whom the cash was paid will be important when the transaction is recorded in the Creditors Ledger (see Chapter 5).

In the same way that there is no GST on a receipt from a debtor, 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. The list of payments that are not subject to GST includes:

- payments to creditors
- interest expense
- wages
- council rates
- cash drawings
- loan repayments.

Of course, it will not be practical to make all payments by cheque. For instance, most milk bars would be unwilling to accept a cheque for \$3.20 for a 2 litre bottle of milk. In cases like this, petty cash can be used, but even the establishment of the petty cash fund should be done by cheque. The other exception would be where cash is deducted directly from the business's bank account (for items such as wages or loan repayments) and transferred electronically.

STUDY TIP

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

STUDY TIP

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

REVIEW QUESTIONS 4.4

- 1 **Explain** three reasons why cash payments should be made by cheque.
- 2 **State** the source document used to verify cash paid.
- 3 **Show** the debit and credit entries necessary to record a cash payment with GST.
- 4 **Explain** why GST paid decreases the GST liability.
- 5 **List** five different transactions for which a cheque butt may be issued.
- 6 **Explain** why there is no GST to account for when cash is paid to a creditor.

sales invoice

a source document used to verify a credit sale of stock

4.5 CREDIT SALES

Credit transactions effectively separate a sale or purchase into two transactions: the exchange of goods occurs first, with the exchange of cash only occurring at some later date. When stock is sold on credit and the goods are exchanged, the source document will be a **sales invoice**. Remember, 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 (particularly the amount of the GST), but the GST will not affect the revenue, expense or profit made on the sale.

Credit sales and the GST

When stock is sold on credit, the customer (debtor) will owe both the amount of the **sale** (for the stock) *plus* the **GST** on the sale.

EXAMPLE

On 21 April 2015, Snaps Photographic Equipment sold 5 Menolta cameras to A. Windley for **\$400** (plus **\$40** GST) each (Inv. 34). Each camera had a cost price of **\$250**.

The sales invoice that provides evidence of this credit sale is shown in Figure 4.11.

Figure 4.11 Sales invoice

Item	Quantity	Unit Price	Total
Menolta camera	5	400	2 000
GST (10%)			200
		TOTAL	\$2 200

STUDY TIP

On an invoice, the name of the *seller* always appears at the top.

Once again, the cost price of the sale (that is, **\$1 250**) is not shown, but the sales invoice shows that the debtor owes **\$2 200**: **\$2 000** for five cameras, plus **\$200** GST.

The credit terms of the sale indicate how long the debtor has to pay and, if a settlement discount applies, will specify the terms of that discount. In Figure 4.11, the terms of the sale (5/7, n/30) indicate that the debtor (A. Windley) has 30 days to settle the debt, but if it is repaid within seven days, a 5% discount will be applied to the total amount owing.

Recording a credit sale with GST

Recording a credit sale is very similar to recording a cash sale, the only difference being that a credit sale takes the form of an increase in Debtors Control (rather than Bank). The GST does not affect the **cost price** of the sale or the **sales revenue earned**, so the ledger entries to record a credit sale with GST would be:

DR	Debtors Control	\$2 200	
CR	Credit Sales		2 000
CR	GST Clearing		200
DR	Cost of Sales	1 250	
CR	Stock Control		1 250

This entry would be recorded in the General Ledger as is shown in Figure 4.12.

Figure 4.12 General Ledger: credit sale with GST

General Ledger					
Debtors Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 1	Balance	6 000			
21	Sales/GST Clearing	2 200			

Sales (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			April 7	Bank	400
			21	Debtors Control	2 000

GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 14	Bank	120	April 7	Bank	40
			21	Debtors Control	200

Stock Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 1	Balance	15 000	April 7	Cost of Sales	250
			21	Cost of Sales	1 250

Cost of Sales (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 7	Stock Control	250			
21	Stock Control	1 250			

The **\$2 200** owed by the debtors includes the **\$2 000** for the sale, plus **\$200** GST, so the cross-reference in the Debtors Control account refers to both **Sales** and **GST Clearing**. However, the GST is charged to the debtor on behalf of the ATO, so it is credited to GST Clearing to increase the liability owed to the ATO.

Effect on the accounting equation

A credit sale with GST has the following effect on the accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Increase (increase Debtors Control \$2 200, decrease Stock Control \$1250)	950
Liabilities	Increase (GST Clearing)	200
Owner's Equity	Increase (Sales \$2 000 less Cost of Sales \$1 250 = Profit)	750

REVIEW QUESTIONS 4.5

- 1 **State** the source document used to verify a credit sale.
- 2 **Explain** what is meant by the terms 5/7, n/30.
- 3 **Show** the debit and credit entries necessary to record a credit sale with GST.
- 4 **Explain** why the GST charged on a credit sale increases Debtors Control.
- 5 **Explain** why the GST charged on a credit sale increases the GST liability.

4.6 CREDIT PURCHASES**purchase invoice**

a source document used to verify a credit purchase of stock or other items

When goods are purchased on credit, the supplier will issue a **purchase invoice**, which must satisfy the requirements of the ATO to qualify as a GST document. A purchase invoice will look almost identical to a sales invoice, detailing the same information, but from a different perspective; this time it will specify not the name of the debtor and the goods sold, but rather the name of the creditor and the goods purchased.

The purchase invoice that would provide evidence of this credit purchase is shown in Figure 4.13.

EXAMPLE

On 28 April 2015, Snaps Photographic Equipment purchased 10 cameras from Pentacks for \$270 (plus \$27 GST) each (Inv. A16).

Figure 4.13 Purchase invoice

PENTACKS 28 April 2015
 41 Kookaburra St, Frankston VIC 3199
 ABN: 22 098 822 098

TAX INVOICE A16 ORIGINAL TERMS: 30 days

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

Item	Qty	Unit cost	\$
Pentacks 550 Series camera	10	270	2 700
GST (10%)			270
		\$	2 970

STUDY TIP

Use the name of the seller at the top of the invoice to determine whether the invoice verifies a credit sale or credit purchase.

In the records of Pentacks, this document would be identified as a sales invoice and recorded as a credit sale. However, in the records of Snaps Photographic Equipment (identified where it says 'Charge to'), this is a purchase invoice, verifying a credit purchase of stock.

Recording a credit purchase with GST

As a result of a credit purchase, we will owe the supplier for both the *stock plus* the *GST*, but the items are separate: the GST does not affect the cost price of the stock purchased. The ledger entries to record a credit purchase with GST would thus be:

DR	Stock Control	\$2 700	
DR	GST Clearing	270	
CR	Creditors Control		2 970

This entry would be recorded in the General Ledger as is shown in Figure 4.14.

Figure 4.14 General Ledger: credit purchase with GST

General Ledger					
Stock Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 1	Balance	15 000	April 7	Cost of Sales	250
28	Creditors Control	2 700	21	Cost of Sales	1 250

GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 14	Bank	120	April 7	Bank	40
28	Creditors Control	270	21	Debtors Control	200

Creditors Control (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			April 1	Balance	7 000
			28	Stock Control/ GST Clearing	2 970

The **\$2 970** owed to creditors includes the **\$2 700** for the stock, plus **\$270** GST, so the cross-reference in the Creditors Control account refers to both *Stock Control* and *GST Clearing*; both accounts are linked to Creditors Control, because the business owes the creditors both amounts. The GST on the purchase (**\$270**) will reduce the GST liability to the ATO, and so it is debited to the GST Clearing account.

Effect on the accounting equation

A credit purchase of stock will thus have the following effect on the accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Increase (Stock Control \$2 700)	2 700
Liabilities	Increase (increase Creditors Control \$2 970, decrease GST Clearing \$270)	2 700
Owner's Equity	No effect	

STUDY TIP

Although invoices would be issued for credit purchases of all items – stock and non-current assets alike – Unit 3 only covers credit purchases of stock.

STUDY TIP

Don't panic if the GST is not yet clear; Chapters 5 and 6 will explore GST in detail, using a range of examples. This chapter is only designed to be an overview.

GST Clearing: summary

The GST Clearing account shows:

- GST (received) on cash sales
- GST (charged to debtors) on credit sales
- GST (paid) on cash purchases
- GST (charged by creditors) on credit purchases.

If GST on sales is greater than GST on purchases, then GST Clearing will have a credit balance, and be reported as a current liability. The business will be required to make a payment to the ATO called a GST settlement. On the other hand, if GST on purchases is greater than GST on sales, the GST Clearing account will be a current asset with a debit balance, and the business will be due a GST refund from the ATO.

REVIEW QUESTIONS 4.6

- 1 **State** the source document used to verify a credit purchase.
- 2 **Show** the debit and credit entries necessary to record a credit purchase of stock with GST.
- 3 **Explain** the effect on Stock Control of the GST on a credit purchase.
- 4 **Explain** why the GST on a credit purchase decreases the GST liability.
- 5 **Explain** what must occur if the GST Clearing account has a credit balance at the end of the period.
- 6 **Explain** what must occur if the GST Clearing account has a debit balance at the end of the period.

4.7 OTHER BUSINESS DOCUMENTS**Memos**

Some transactions will not be evidenced by any of the preceding documents, as they involve neither a sale nor purchase, nor the receipt or payment of cash. These transactions may include:

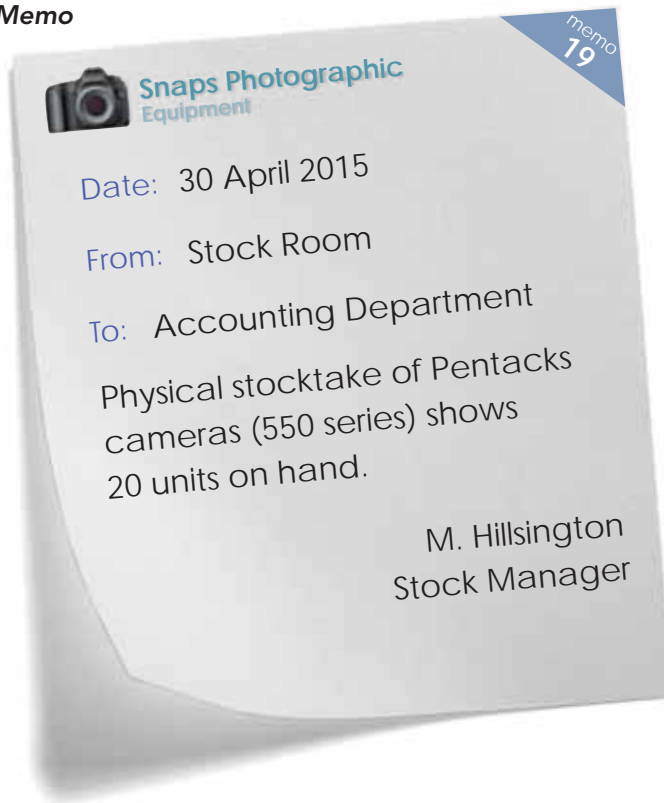
- opening, closing, correcting and adjusting entries
- stock losses, gains, write-downs and transfers
- non-cash transactions with the owner
- other non-cash, infrequent transactions.

Each of these transactions is covered in detail later in this text.

These transactions must still be verified by a document, but for the preceding transactions it will be a document issued from within the firm, called a memorandum or **memo**. Memos can be issued for any number of transactions, and so their format is much more flexible than the other documents discussed so far. Put simply, they will describe a particular entry, and request that it is recorded. Figure 4.15 shows a common layout for a memo.

memo

a source document used to verify an internal transaction

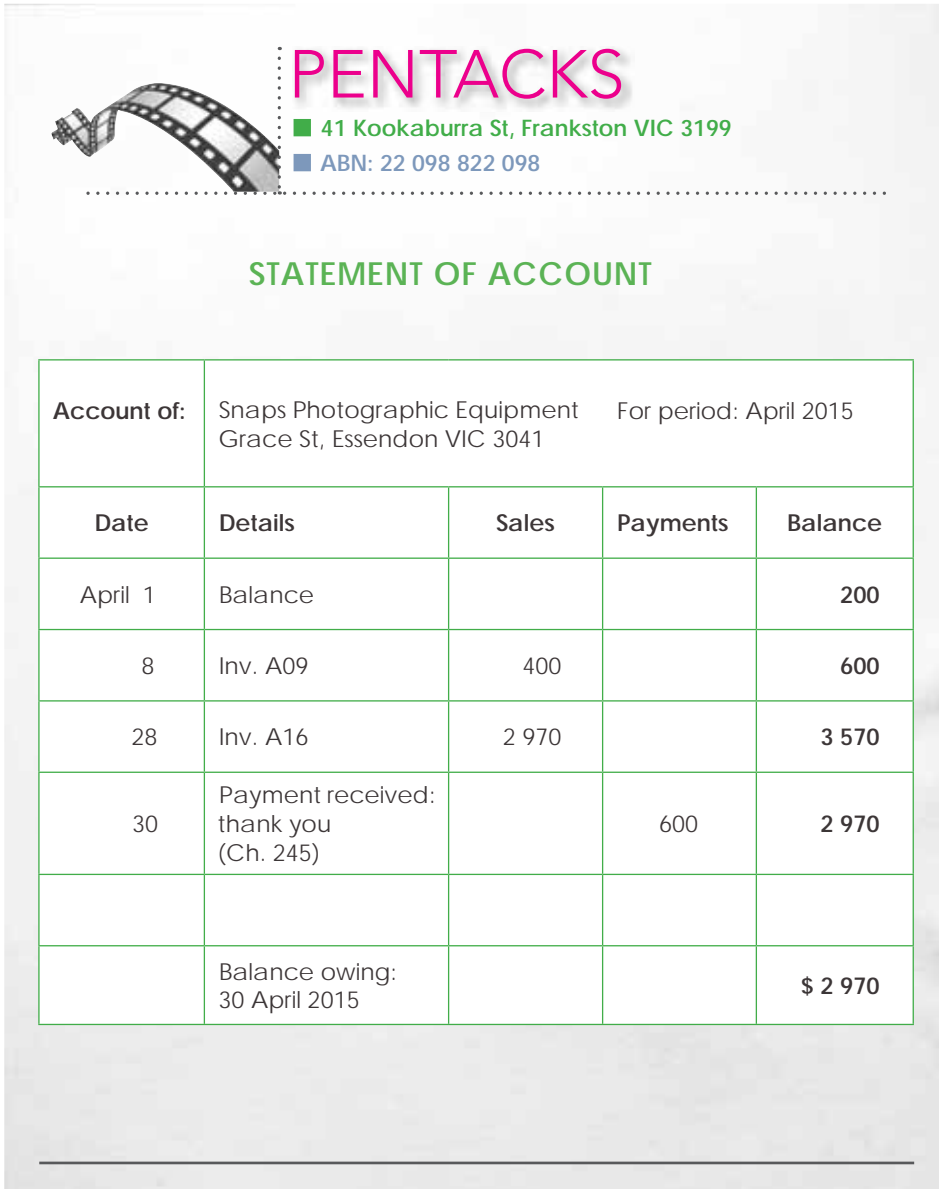
Figure 4.15 Memo

The document is dated and numbered and informs the accounting department that a stocktake has counted 20 cameras. This figure can then be compared with the stock cards to check their accuracy, and detect any stock loss or gain, which could then be recorded in the ledger accounts.

Statements of account

The first, and most important, point 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 should have already been recorded – the statement of account is not a source document that must be recorded. Figure 4.16 shows the statement of account from a creditor – Pentacks – for April 2015:

statement of account
a summary of the
transactions a firm has had
with a particular debtor/
creditor over a certain
period of time (usually a
month)

Figure 4.16 Statement of account


PENTACKS
 ■ 41 Kookaburra St, Frankston VIC 3199
 ■ ABN: 22 098 822 098

STATEMENT OF ACCOUNT

Account of:	Snaps Photographic Equipment		For period: April 2015	
	Grace St, Essendon VIC 3041			
Date	Details	Sales	Payments	Balance
April 1	Balance			200
8	Inv. A09	400		600
28	Inv. A16	2 970		3 570
30	Payment received: thank you (Ch. 245)		600	2 970
	Balance owing: 30 April 2015			\$ 2 970

This statement of account summarises the various credit purchases made by Snaps Photographic Equipment *from* Pentacks during April 2015, 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.

Order forms

Just like statements of account, **order forms** are a type of source document that do not need to be recorded. Order forms are completed when a business requests stock or other supplies/assets from a supplier, but the transaction does not occur until the

order form
a document requesting the supply of stock or other goods

Figure 4.17 Order form

Snaps Photographic
EQUIPMENT 22 Grace St, Essendon VIC 3041

ORDER FORM

ABN: 11 049 411 049

Supplier: Menolta Cameras 3 May 2015
55 High St, Armadale VIC 3143

Please supply the following items:

Item	Qty
Menolta camera – Model #310	20

Please inform re. delivery date


goods are exchanged. It is only when the goods are received (or, in the case of a sale, delivered) that the invoice will be sent, and it is the *invoice*, not the order form, that must be recorded. An order form is simply a request for items – the items may not be available, or may not be delivered for some time to come – so it cannot be recorded as a transaction.

Note how the order form in Figure 4.17 does not specify an amount; the business ordering the stock (Snaps Photographic Equipment) is not able to set the selling price, so it cannot specify an amount on the order form. It is also unable to specify the GST, or that it is a tax invoice. The amount will be specified on the purchase invoice that accompanies the goods when they are delivered, and it is *then* that the transaction can be recorded.

This is not an exhaustive list of business documents, but it illustrates the main documents that will be used in the VCE Accounting course to verify transactions and ensure that reports are *Reliable*; that is, free from bias and error. Other business documents (including bank statements, pay advice to employees, group certificates, tax remittances, delivery dockets and statements of superannuation contributions) will be important in the normal course of business activities, and each and every one of these documents must be collected, checked, recorded (where necessary) and filed.



WHERE HAVE WE BEEN?

- The Goods and Services Tax (GST) is a 10% tax levied by the federal government on most goods and services excluding fresh food.
 - GST on sales is owed to the government, but GST on purchases reduces that liability.
 - All GST transactions are summarised in the GST Clearing account, which can be a current asset or current liability.
 - If GST on sales is greater than GST on purchases, the business will have a GST liability, and be required to make a GST settlement.
 - If GST on purchases is greater than GST on sales, the business will have a GST asset, and is due a GST refund.
 - As selling prices are generally higher than cost prices, most firms will end up with a GST liability.
 - 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 error and bias.
 - Most cash payments should be made by cheque because they are secure, traceable and verifiable.
 - 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 stock is sold on credit, the source document will be a sales invoice.
 - When stock is purchased on credit, the source document will be a purchase invoice.
 - GST is recognised and reported only at the time the purchase or sale is made.
 - The credit terms of the sale indicate how long the debtor has to pay and, if a settlement discount applies, will also specify the terms of that discount.
 - A memo is a source document used to verify an internal transaction.
 - A statement of account is a summary of the transactions a firm has had with a particular debtor/creditor over a certain period of time (usually a month).
 - An order form is simply a request for stock or other supplies/assets from a supplier.
- 

EXERCISE 4.1

CASH TRANSACTION




page 56

The following document was found in the office of Hats Off to Hats! The owner, Harry, applies 100% mark-up to all stock.

555 Mickleham Road
Tullamarine VIC 3043

ABN: 45 983 453 101



Hats Off to Hats!

Date: 2 November 2015

Receipt no.: 60 (tax invoice)

Received from: Cash sales

The sum of: Two hundred and twenty dollars

Being for: 2 top hats @ \$100 each

Amount: \$ 200.00

Plus GST: \$ 20.00

Total: \$ 220.00

Signed: Paula Ekland

Required

- a **Identify** the source document above.
- b **Describe** the transaction verified by this document.
- c **Show** the debits and credits necessary to record this document in the General Ledger of Hats Off to Hats!
- d **Explain** why this transaction creates a GST liability for Hats Off to Hats!
- e Referring to one qualitative characteristic, **explain** the role of source documents in the accounting process.

EXERCISE 4.2

CASH TRANSACTION




page 57

I.C. Redd, the owner of Book Me Danno, found the following document when cleaning his desk:

Rec. #83

Book Me Danno

Antique and rare books
Puckle St, Moonee Ponds VIC 3039



ABN: 50 505 505 505

Received from: V. Deo Date: 15.8.15

The sum of: Two hundred and seventy dollars

Being for: Settlement of account

Signed: Alex Micari Amount: \$270.00

Required

- a Referring to the preceding document, **identify** the entity that has received the cash.
- b **Explain** why there is no GST identified in this document.
- c **Show** the debit and credit entries necessary to record this transaction in the General Ledger of Book Me Danno.
- d **Explain** the effect that this transaction has on the profit of Book Me Danno for August 2015.

EXERCISE 4.3

CASH TRANSACTION

 page 58

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

ABN 63 217 846 199

National Australia Bank

Date 1 March 2015

To Courier Newspaper

For Advertising paid in advance
\$1 400 plus GST of \$140

Bal c/fwd \$.....

Deposits \$.....

Amount \$1 540.00

Balance \$.....

CHQ No. 200

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 **State** two reasons why payments should not be made using cash from the cash register.
- d **Show** the debit and credit entries necessary to record this transaction in the General Ledger of Sally's Shoe Shop.
- e **State** two reasons why this document would **not** satisfy the requirements of a tax invoice.

EXERCISE 4.4

CREDIT TRANSACTION

 page 59

The accountant for Mentone Music Shop came across this source document in a drawer:



MUSICAL MAYHEM **TAX INVOICE**

72 City View Rd
Balwyn VIC 3930

ABN: 61 363 217 404

Invoice: 480 (Original)
Net 30 days

8 February 2015

Customer: Mentone Music Shop (ABN: 12 945 362 733)
91 Balcombe Rd, Mentone VIC 3194

Attn: B. Gill

Item	Description	Qty	Unit Cost	\$
205	Saxophones	15	500	7 500
	Plus GST 10%			750
	Total			\$ 8 250

Required

- Identify** the source document above, and **describe** the transaction.
- Show** the debits and credits necessary to record this transaction in the General Ledger of Mentone Music Shop.
- Explain** the effect of this transaction on the GST liability of Mentone Music Shop.
- State** the value at which this stock would be reported in the Balance Sheet of Mentone Music Shop. **Justify** your answer.

EXERCISE 4.5

CREDIT TRANSACTION

 page 60

Alex, the owner of Deco Décor, found the following document under the cash register. It has not been recorded.



Deco Décor **Invoice: 90**

Block Arcade
Melbourne VIC 3000

ABN: 98 564 872 575

Duplicate
Tax invoice

6/7, n/30

Charge to: Lloyds Country Inn, Ballarat VIC 3350

Date	Details	Qty	Unit Price \$	Total \$
May 4	Single bed sheet sets	12	60	720
	GST (10%)			72
			Total	\$792

Required

- a **Identify** the preceding source document, and **describe** the transaction.
- b **Explain** what is meant by the terms '6/7, n/30'.
- c Given that all sales are marked up by 100%, **show** the debits and credits necessary to record this transaction in the General Ledger of Deco Décor.
- d **Explain** why this transaction increases the GST liability of Deco Décor.

EXERCISE 4.6

STATEMENT OF ACCOUNT

 page 61

The owner of Celtic Sensations has received the following source document in the mail:



Look of the Irish

ABN: 34 221 768 999
110 Main Rd
Greensborough VIC 3085

5 July 2015

STATEMENT OF ACCOUNT				ACC: 8613
Statement for:	Celtic Sensations 45 Burke Rd, Camberwell VIC 3350		ABN: 16 422 031 164	
	Particulars	Debit	Credit	Balance
June 1	Balance b/fwd			3 200
12	Inv. MH 365	1 200		4 400
24	Thank you – payment		2 400	2 000
29	Inv. MH 372	1 500		3 500
Days outstanding		Current	30–60	60+
Amount outstanding		2 700		800
Please pay any outstanding amounts immediately to ensure continuance of supply				

Required

- a **State** the role of a statement of account.
- b **Explain** how Look of the Irish would be reported in the Balance Sheet of Celtic Sensations.
- c **Explain** how Celtic Sensations would be reported in the Balance Sheet of Look of the Irish.
- d **Explain** how this document should be used by Celtic Sensations to improve the *Reliability* of its reports.

EXERCISE 4.7

MEMORANDUM

 page 62

The accountant of Ferris Frames received the following source document in the internal mail from the manager:

Ferris Frames

Shannon Street
Sunbury VIC 3429



To: The Accountant

Re: \$300 worth of stock has been taken for personal use.

Signed: *K. Ferris*

Required


- a Identify** the source document above, and **describe** the transaction.
- b Explain** the role of memos in an accounting system.
- c** Referring to one accounting principle, **explain** why this transaction must be recorded in the General Ledger of Ferris Frames.
- d Show** the debits and credits necessary to record this transaction in the General Ledger of Ferris Frames.
- e State** the effect on the accounting equation of Ferris Frames if this document was **not** recorded.
- f State** two other types of transaction that would be verified by a memo.

EXERCISE 4.8

ORDER FORM

 page 64

The Manager of Bev's Photo Shop sent the following document to her supplier Komak:

		Bev's Photo Shop Highpoint Centre Maribyrnong VIC 3168 <i>The Photographer's Friend</i>	Purchase Order: 91 <i>29 April 2015</i>
Supplier	KOMAK <i>Industrial Lane, Dandenong VIC 3162</i>		
Please supply the following:			
Qty	Photographic supplies		
25	Film – Kodak 400		
10	Paper – A45 (high gloss)		
	Please deliver within 7 days		

Required

- Explain** why order forms are **not** part of the accounting process.
- Explain** why there are no prices listed on this document.
- Referring to the definitions, **explain** why this document does **not** lead to the recognition of an asset in the records of Bev's Photo Shop.
- Name** the document that will verify the purchase of the photographic supplies when they are delivered.

Where are we headed?

After completing this chapter, you should be able to:

- **explain** the role of special journals and the benefits they bring to the accounting process
- **list** the four special journals and **identify** the transactions they are used to record
- **record** credit purchases of stock (with GST) in the Purchases Journal
- **post** the Purchases Journal to the General Ledger and Creditors Ledger
- **prepare** a Creditors Schedule
- **record** credit sales of stock (with GST) in the Sales Journal
- **post** the Sales Journal to the General Ledger and Debtors Ledger
- **prepare** a Debtors Schedule
- **explain** the relationship between control accounts and the subsidiary ledger
- **explain** the benefits of using a system of control accounts and subsidiary ledgers
- **identify** the effect of GST on the recording of credit purchases and sales
- **report** GST Clearing in the Balance Sheet.

CHAPTER 5

SPECIAL JOURNALS 1: CREDIT JOURNALS

KEY TERMS

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

- special journal
- Purchases Journal
- control account
- subsidiary ledger
- Sales Journal
- GST settlement
- GST refund.

5.1 SPECIAL JOURNALS

Ledger accounts are ideal for recording the effect of transactions on individual items in business reports, but having completed the exercises in Chapter 3, you will know that recording in ledgers involves a fair deal of repetition. Transactions that occur every day (such as cash sales, cash payments or purchases of stock on credit) will need to be recorded in the ledger accounts each day, using exactly the same debit and credit entries.

EXAMPLE

Linen and McCartney is a shop that sells sheets, towels and bed linen. Its transactions for October were as follows:

- Oct. 1 Purchased stock on credit from Marks and Co. – \$230 plus \$23 GST (Inv. B93)
- 6 Stock purchased from Walton Traders for \$220 including \$20 GST (Inv. 13)
- 17 Purchased \$190 worth of stock (plus \$19 GST) from Jackson Suppliers (Inv. 142)
- 22 Bought stock from Highlife Ltd for \$320 plus \$32 GST (Inv. A17)
- 25 Purchased stock on credit from Marks and Co. for \$410 plus GST (Inv. B99)
- 29 Stock purchased from Walton Traders for \$187 (includes GST) (Inv. 21)

Each of the transactions above is a *credit purchase of stock*, and will require exactly the same debit and credit entries every time it is recorded in the ledger. That is:

DR Stock Control
 DR GST Clearing
 CR Creditors Control

After recording these transactions in the General Ledger, the accounts would show:

General Ledger
Stock Control (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 1	Creditors Control	230			
6	Creditors Control	200			
17	Creditors Control	190			
22	Creditors Control	320			
25	Creditors Control	410			
29	Creditors Control	170			

GST Clearing (A or L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 1	Creditors Control	23			
6	Creditors Control	20			
17	Creditors Control	19			
22	Creditors Control	32			
25	Creditors Control	41			
29	Creditors Control	17			

Creditors Control (L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Oct. 1	Stock Control/GST Clearing	253
			6	Stock Control/GST Clearing	220
			17	Stock Control/GST Clearing	209
			22	Stock Control/GST Clearing	352
			25	Stock Control/GST Clearing	451
			29	Stock Control/GST Clearing	187

Although these ledger accounts show only six transactions, the repetition is obvious. Imagine what these accounts would look like with 30 or 40 credit purchases per month! Given that there will be a number of transactions that have the same effect on the General Ledger, it hardly makes sense to repeat the same ledger entries over and over again. For this reason, **special journals** are used to summarise similar transactions before posting the totals to the General Ledger accounts at the end of the month.

Types of special journals

Whereas ledger accounts record all transactions that affect a particular *item* (such as Bank, or Creditors Control or Sales), special journals record all *transactions* of a particular type. The four most common special journals – and the transactions that they record – are shown in Figure 5.1.

Figure 5.1 Types of special journals

Journal	Transaction
Purchases Journal (PJ)	Credit purchases of stock (from creditors)
Sales Journal (SJ)	Credit sales of stock (to debtors)
Cash Receipts Journal (CRJ)	Cash received (from all sources)
Cash Payments Journal (CPJ)	Cash paid (for all uses)

The main purpose of these special journals is to summarise similar transactions so that totals can be posted to the General Ledger, in the process reducing the number of ledger entries required and improving the efficiency of the recording system.

While these are the most common special journals, it should be noted that it is up to each firm to determine which special journals to use, dependent on its own circumstances and needs. For instance, if credit purchases of stock occur only infrequently, there is no need for a Purchases Journal. (On the other hand, every firm will have cash transactions, so these journals are almost indispensable.)

special journal

an accounting record that summarises similar transactions

STUDY TIP

There is no need to specify *credit* in the title of the Purchases Journal or Sales Journal, as this is the only type of transaction they can record: all cash purchases or sales will be recorded in either the Cash Payments Journal or Cash Receipts Journal.

Any transactions that are unable to be recorded in a special journal must be recorded in the General Journal, which is used to record all infrequent, non-cash transactions. (This will be covered in Chapter 7.)

Every transaction must be recorded in a journal before it is posted to the ledger accounts.

As a result, the journals – special and general – play an additional role of providing a link between the ledger entries and the source documents that provide the evidence and details of the transactions themselves.

REVIEW QUESTIONS 5.1

- 1 List the four special journals, and state the types of transactions they record.
- 2 Explain the function of a special journal.
- 3 Explain the function of the General Journal.
- 4 Explain why not all businesses will use the same special journals.

5.2 THE PURCHASES JOURNAL

As was stated in the previous example of Linen and McCartney, all transactions involving the purchase of goods on credit have exactly the same debit and credit entries:

DR Stock Control
 DR GST Clearing
 CR Creditors Control

Purchases Journal

an accounting record that summarises all transactions involving the purchase of stock on credit during a month

These transactions can be summarised in a **Purchases Journal** to allow the *total* credit purchases of stock to be posted to the General Ledger accounts at the end of the month.

Recording in the Purchases Journal

The credit purchases for Linen and McCartney for October are summarised in the Purchases Journal in Figure 5.2.

Figure 5.2 Purchases Journal

Date ¹	Creditor ²	Invoice number ³	Stock Control ⁴	GST ⁵	Creditors Control ⁶
Oct. 1	Marks and Co.	B93	230	23	253
6	Walton Traders	13	200	20	220
17	Jackson Suppliers	142	190	19	209
22	Highlife Ltd	A17	320	32	352
25	Marks and Co.	B99	410	41	451
29	Walton Traders	21	170	17	187
	Totals		1 520	152	1 672

Notes for recording in the Purchases Journal

1 Date

Although the totals will be posted to the General Ledger only at the end of the month (that is, on 31 October 2015), the transactions are recorded in the journal on the date they occur. This date will be very important for the individual creditors' records.

2 Creditor

All these transactions will be recorded in one Creditors Control account in the General Ledger, but because the business has more than one creditor, the journal must show the name of each individual creditor. A separate record will be maintained elsewhere for each individual creditor.

3 Invoice number

In order to ensure *Reliability*, the source document, which for this journal is a purchase invoice, must be recorded. If a query arises as to the details of the transaction, it can be traced back easily to the source document for clarification and verification. (The purchase invoices listed in the Purchases Journal of Linen and McCartney will not run in order, because they are issued not by Linen and McCartney, but by their suppliers, such as Marks and Co. and Walton Traders. Between purchases by Linen and McCartney, these suppliers will issue invoices to all their other customers.)

4 Stock Control

Stock Control is the value (cost price) of the **stock that has been purchased**, excluding the GST.

5 GST

This is the **GST charged by suppliers on credit purchases**, calculated as 10% of the purchase price, as recorded in the Stock Control column. The GST charged by the suppliers does not affect the valuation of stock; it simply reduces the GST liability owed to the ATO, and increases the debt owed to creditors.

6 Creditors Control

This is the total amount owed to creditors, calculated by adding together the value of the **stock purchased** and the **GST**. We owe the creditor for the stock purchased and the GST on that stock.

STUDY TIP

Transactions may ask you to calculate the amount of GST, but will always identify that GST applies.

Posting the Purchases Journal to the General Ledger

At the end of the month, the total of the Purchases Journal can be posted to the General Ledger accounts as is shown in Figure 5.3.

Figure 5.3 General Ledger: posting the Purchases Journal

General Ledger Stock Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 1	Balance	10 000			
31	Creditors Control	1 520			

GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Creditors Control	152			

Figure 5.3 (cont.) General Ledger: posting the Purchases Journal

Creditors Control (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Oct. 31	Stock Control/	1 672
				GST Clearing	

Recording transactions in the Purchases Journal before posting to the General Ledger has allowed us to record *all* credit purchases with just one entry, not six, in each account.

Remember that the cross-reference in the Creditors Control account refers to both **Stock Control** and **GST Clearing**, because both accounts are linked to the amount recorded in **Creditors Control**.

In the GST Clearing account, the GST charged by the supplier is recorded on the debit side, as it reduces any GST liability the business may have accrued. It is treated as if some GST has already been paid to the ATO. If the GST Clearing account already had a debit balance, this GST charged by suppliers would increase the value of the asset.

The Purchases Journal is posted to the General Ledger using the column totals at the end of the month.

REVIEW QUESTIONS 5.2

- 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 on the valuation of stock of GST (charged by suppliers) on credit purchases.
- Referring to the Purchases Journal, **state** one reason why the amount recorded in the Creditors Control column is greater than the value of stock purchased.
- 5 Show** the debit and credit entries necessary to post the Purchases Journal to the General Ledger.
- 6 Explain** the effect on the GST Clearing account of GST charged by suppliers on credit purchases.

5.3 THE CREDITORS (SUBSIDIARY) LEDGER

Although we have recorded the total purchased from creditors, there is at present no record of the amounts owed to individual creditors. The Purchases Journal was posted to a **control account** in the General Ledger called Creditors Control, which summarised the purchases from *all* creditors.

The General Ledger account is called *Creditors Control*, making it clear that it is a *summary* account, and further details are recorded elsewhere. In the case of creditors, the detailed records are kept in a **subsidiary ledger** called the Creditors Ledger. A subsidiary ledger is an additional set of ledger accounts, kept outside the General Ledger. Whereas the General Ledger contains the Creditors Control account, showing a summary of all transactions affecting creditors as a whole, the Creditors Ledger contains a separate account for each individual creditor, showing each individual transaction affecting that creditor's balance.

control account

an account in the General Ledger summarising the transactions recorded in the subsidiary ledger accounts

subsidiary ledger

an additional set of ledger accounts kept outside the General Ledger, recording individual transactions for each individual debtor or creditor

Posting the Purchases Journal to the Creditors Ledger

Although it is still a ledger, the double-entry recording rules are modified somewhat when posting to the Creditors Ledger. It is in the General Ledger that the double-entry recording rule – requiring a matching debit and credit entry – must be maintained. In the Creditors Ledger, all that must be shown are the *details*; that is, the individual transactions that together make up the one credit entry in the Creditors Control account.

The Purchases Journal in Figure 5.2 would be posted to the Creditors Ledger as shown in Figure 5.4.

Figure 5.4 Creditors Ledger: posting the Purchases Journal

Creditors Ledger Marks and Co. (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Oct. 1	Stock Control/GST Clearing	253
			25	Stock Control/GST Clearing	451
				704	

Walton Traders (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Oct. 6	Stock Control/GST Clearing	220
			29	Stock Control/GST Clearing	187
				407	

Jackson Suppliers (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Oct. 17	Stock Control/GST Clearing	209
				209	

Highlife Ltd (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Oct. 22	Stock Control/GST Clearing	352
				352	

The double entry is maintained in the General Ledger, but in the Creditors Ledger, each individual creditor's account is credited for the individual transactions that made up that total, on the date that they occurred.

The Purchases Journal is posted to the Creditors Ledger using the individual transactions on the date they occur.

The Creditors Schedule

In order to check that the same information has been recorded (albeit in a different form) in the General Ledger and Creditors Ledger, a **Creditors Schedule** (or Creditors Reconciliation) is prepared. This occurs at the end of the month, before the Balance Sheet is prepared. The Creditors Schedule lists the name and balance of each individual account in the Creditors Ledger. Figure 5.5 shows the Creditors Schedule for Linen and McCartney as at 31 October 2015.

STUDY TIP

Looking at the individual accounts in the Creditors Ledger is like 'zooming in' on the Creditors Control account – sort of like zooming in on Google Earth.

STUDY TIP

The entries in a control account must be replicated in the subsidiary ledger, but as individual transactions.

Creditors Schedule

a list of the name and balance of each individual account in the Creditors Ledger, added together to enable checking against the balance of the Creditors Control account

Figure 5.5 Creditors Schedule

LINEN AND McCARTNEY	
Creditors Schedule as at 31 October 2015	
Creditor	Balance \$
Marks and Co.	704
Walton Traders	407
Jackson Suppliers	209
Highlife Ltd	352
Balance as per Creditors Control account	1 672

The total of the Creditors Schedule is calculated by adding together the balances of the individual creditor accounts in the Creditors Ledger, and this should equal the balance of the Creditors Control account in the General Ledger. The Creditors Schedule fulfils a control function by acting as a checking mechanism. Only the balance of the Creditors Control account of **\$1 672** will be reported in the Balance Sheet.

Note: In this example, the sum of the balances of the individual creditors accounts matches not only the balance of the Creditors Control account, but also the total of the Purchases Journal because no cash payments to creditors have been recorded. It is not necessary, nor likely, that the Creditors Schedule will equal the total of the Purchases Journal; it must only match the balance of the Creditors Control account.

REVIEW QUESTIONS 5.3

- 1 **Explain** the relationship between the Creditors Control account and the Creditors Ledger.
- 2 **State** two differences in the way the Purchases Journal is posted to the Creditors Ledger (as compared to the General Ledger).
- 3 **State** the function of a Creditors Schedule.
- 4 **Explain** how the Creditors Schedule aids in the control of creditors.

5.4 THE SALES JOURNAL AND THE DEBTORS (SUBSIDIARY) LEDGER

Just as all credit purchases have exactly the same debit and credit entries, so too do all credit sales:

DR	Debtors Control
CR	Sales Revenue
CR	GST Clearing

and

DR	Cost of Sales
CR	Stock Control

Sales Journal

an accounting record summarising all transactions involving the sale of stock on credit during a month

These transactions can be summarised in a **Sales Journal** to allow the total credit sales of stock to be posted to the General Ledger accounts at the end of the month.

Recording in the Sales Journal

The credit sales for October 2015 for Linen and McCartney are summarised in the Sales Journal in Figure 5.6.

Figure 5.6 Sales Journal

Date ¹	Debtor ²	Invoice number ³	Cost of Sales ⁴	Sales ⁵	GST ⁶	Debtors Control ⁷
Oct. 2	R. Starr	45	290	450	45	495
6	G. Martin	46	160	300	30	330
14	R. Starr	47	200	380	38	418
20	B. Epstein	48	220	400	40	440
27	G. Martin	49	150	270	27	297
	Totals		1 020	1 800	180	1 980

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 posted to the Debtors Ledger.

2 Debtor

Whereas credit purchases will increase Creditors Control, credit sales will increase Debtors Control. In addition, the Sales Journal must show the name of each individual debtor so that the individual transactions can be posted to the appropriate accounts in the Debtors Ledger.

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 Cost of Sales

The amount listed under Cost of Sales will be the **cost price** of the stock sold, excluding any GST. This is the amount that will be posted to record the expense incurred when stock is sold:

DR	Cost of Sales (E)	\$1 020
CR	Stock Control (A)	1020

5 Sales

This is the **selling price** of the sale, *excluding* any GST; that is, the amount of **sales revenue earned from the sale**.

6 GST

This is the **GST (charged to debtors) on credit sales**, calculated as 10% of the price of the sale (as recorded in the Sales column.) The GST charged does not affect the amount of revenue earned; it increases the GST liability owed to the ATO, and increases the amount owed by debtors.

7 Debtors Control

This is the total amount owed by debtors, calculated by adding together the **selling price of the stock sold** and the **GST charged**. That is, each debtor owes us for the sale and the GST on that sale.

STUDY TIP

As with credit purchases, credit sales will always identify that GST applies.

Posting the Sales Journal to the General Ledger and Debtors Ledger

The totals of the Sales Journal are posted to the General Ledger accounts at the end of the month (in this case, 31 October 2015), as is shown in Figure 5.7.

Figure 5.7 General Ledger: posting the Sales Journal

General Ledger					
Debtors Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Sales/GST Clearing	1 980			

Sales (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Oct. 31	Debtors Control	1 800

GST Clearing (A or L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Creditors Control	152	Oct. 31	Debtors Control	180

Stock Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 1	Balance	10 000	Oct. 31	Cost of Sales	1 020
31	Creditors Control	1 520			

Cost of Sales (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Stock Control	1 020			

Recording transactions in the Sales Journal has reduced the number of debit and credit entries from 25 (two entries at **cost price** and three entries at **selling price**, times five transactions) to just five in total.

The Sales Journal is posted to the General Ledger using the column totals at the end of the month.

Posting the Sales Journal to the Debtors Ledger

In contrast to the General Ledger, in which only the totals are posted at the end of the month, the Debtors Ledger must show each individual credit sale, in the account of each individual debtor, on the date the transaction actually occurred. As with the Creditors Ledger, the Debtors Ledger records an additional debit to mirror the debit to Debtors Control in the General Ledger. This is shown in Figure 5.8.

Figure 5.8 Debtors Ledger: posting the Sales Journal

Debtors Ledger					
R. Starr (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 2	Sales/GST Clearing	495			
14	Sales/GST Clearing	418			
	(913)				

G. Martin (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 6	Sales/GST Clearing	330			
27	Sales/GST Clearing	297			
	(627)				

B. Epstein (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 20	Sales/GST Clearing	440			

The Sales Journal is posted to the Debtors Ledger using the individual transactions on the date they occur.

STUDY TIP

Whatever entries appear in a control account must be replicated in the subsidiary ledger, but as individual transactions.

The Debtors Schedule

A Debtors Schedule can be prepared to check the accuracy of the posting, following the same process that was used to produce a Creditors Schedule. Figure 5.9 shows the Debtors Schedule for Linen and McCartney as at 31 October 2015.

Figure 5.9 Debtors Schedule

LINEN AND McCARTNEY	
Debtors Schedule as at 31 October 2015	
Debtor	Balance \$
R. Starr	913
G. Martin	627
B. Epstein	440
Balance as per Debtors Control account	1 980

REVIEW QUESTIONS 5.4

- 1 **Explain** the role of the Sales Journal.
- 2 **State** which type of source document is used to verify all transactions recorded in the Sales Journal.
- 3 **Explain** the effect on revenue earned of GST charged to debtors on credit sales.
- 4 Referring to the Sales Journal, **state** one reason why the amount recorded in the Debtors Control column is greater than sales revenue earned.
- 5 **Show** the debit and credit entries necessary to post the Sales Journal to the General Ledger.
- 6 **Explain** the effect on the GST Clearing account of GST charged to debtors on credit sales.
- 7 **Explain** the relationship between the Debtors Control account and the Debtors Ledger.
- 8 **State** two differences in the way the Sales Journal is posted to the Debtors Ledger (as compared to the General Ledger).
- 9 **State** the function of a Debtors Schedule.
- 10 **Explain** how the Debtors Schedule aids in the control of debtors.

5.5 REPORTING GST CLEARING

At the end of the reporting period, the GST Clearing account must be balanced, and reported as either a current asset or a current liability, depending on whether it has a debit balance or a credit balance. After balancing at the end of October 2015, the GST Clearing account for Linen and McCartney would show:

GST Clearing (A or L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Creditors Control	152	Oct. 31	Debtors Control	180
	Balance	28			
		180			180
			Nov. 1	Balance	28

GST settlement

a cash payment made to the ATO to settle the liability that occurs when GST on sales is greater than GST on purchases

GST refund

a cash receipt from the ATO to refund the excess that occurs when GST on sales is less than GST on purchases

The credit balance of \$28 indicates that this account is a *current liability*: GST charged to debtors on sales (\$180) is greater than GST charged by creditors on purchases (\$152), so the business owes \$28 to the ATO. GST Clearing would thus be reported in the Balance Sheet with other current liabilities, such as Bank overdraft and Creditors Control, as a present obligation the business must meet at some time within the next 12 months, when it makes a payment to the ATO in the form of a **GST settlement**.

If the GST on sales had been *less* than the GST on purchases, the GST Clearing account would have had a *debit* balance. This would mean GST Clearing would be a *current asset*: a resource controlled by the business from which a future economic benefit is expected in the next 12 months. GST Clearing would be reported in the Balance Sheet with other current assets (such as Bank, Stock Control and Debtors Control) and the business would be due a **GST refund** from the ATO.

REVIEW QUESTIONS 5.5

- 1 **Explain** how the GST Clearing account may end up with a credit balance.
- 2 **Explain** how the GST Clearing account should be reported in the Balance Sheet if it has a credit balance.
- 3 **Define** the term 'GST settlement'.
- 4 **Explain** how the GST Clearing account may end up with a debit balance.
- 5 **Explain** how the GST Clearing account should be reported in the Balance Sheet if it has a debit balance.
- 6 **Define** the term 'GST refund'.

5.6 BENEFITS OF USING CONTROL ACCOUNTS AND SUBSIDIARY LEDGERS

Although it may seem like more work than simply using a single account in the General Ledger, using a system of control accounts and subsidiary ledgers is vital in ensuring that all relevant information is available. The three main benefits of using a system of control accounts and subsidiary ledgers are:

- *Double-checking that allows detection of recording errors.* The preparation of a Debtors or Creditors Schedule allows the balance of the control account to be checked against the sum of the balances of the subsidiary ledger accounts. This allows for recording errors to be detected and corrected, improving the *Reliability* of the balance reported in the Balance Sheet.
- *Ease of reporting.* The single balance for all debtors or creditors (provided by the control account in the General Ledger, and the Schedule) means that the Balance Sheet need only report the balance of the control account, rather than list every individual debtor or creditor, and their individual balances. Omitting these details gives greater *Relevance*, as these details would not be useful for the types of decision-making that rely on the Balance Sheet for information.
- *Allocation of responsibility.* Separating the subsidiary ledger accounts from the General Ledger means the management of the subsidiary ledger can be allocated to a particular employee. This employee can then be responsible for managing all dealings with debtors (such as the assessment of credit worthiness; the issuing of sales invoices; the collection of receipts from debtors; and the management of bad debts) or creditors (such as the collection of purchase invoices and timely payment of creditors). Greater accountability would hopefully improve effectiveness, and would also leave the senior bookkeeper free to manage the General Ledger.

Thus, using a system that incorporates both subsidiary ledgers and control accounts has benefits for recording (double-checking), reporting (ease of reporting) and management (allocation of responsibility).

The alternative would be to include all individual accounts in the General Ledger, but this would remove the double-checking mechanism, require many figures to be reported in the Balance Sheet and disallow the allocation of responsibility.

WHERE HAVE WE BEEN?

- Special journals summarise similar transactions so that totals can be posted to the General Ledger, which reduces the number of ledger entries required and improves the efficiency of the recording system.
- The General Journal is used to record all infrequent, non-cash transactions.
- A control account is an account in the General Ledger summarising the transactions recorded in the subsidiary ledger. Journal totals are posted at the end of the month.
- A subsidiary ledger is an additional set of ledger accounts kept outside the General Ledger, containing individual transactions posted on the day they occur.
- A Schedule lists the name and balance of each individual account in the subsidiary ledger, and should equal the balance of the control account.
- The GST on credit purchases does not affect the valuation of stock; it reduces the GST liability owed to the ATO and increases the debt owed to creditors.
- The total amount owed to creditors includes the value of the stock purchased and the GST.
- The GST on credit sales does not affect the amount of revenue earned; it increases the GST liability owed to the ATO and increases the amount owed by debtors.
- The total amount owed by debtors includes the selling price of the stock sold and the GST.
- At the end of the reporting period, the GST Clearing account must be balanced, and reported as either a current asset or a current liability, depending on whether it has a debit or a credit balance.
- The main benefits from using a system of control accounts and subsidiary ledgers are detection of recording errors, ease of reporting and allocation of responsibility.

Transaction	Document	Journal	General Ledger: • totals • end of the month	Subsidiary ledger: • individual transactions • transaction date
Credit purchases of stock	Purchase invoice	Purchases Journal	DR Stock Control DR GST Clearing CR Creditors Control	CR Each individual creditor
Credit sales of stock	Sales invoice	Sales Journal	DR Debtors Control CR Sales CR GST Clearing DR Cost of Sales CR Stock Control	DR Each individual debtor

EXERCISE 5.1

PURCHASES JOURNAL

 page 66

The following document was handed to the manager of Porcelain Magic, a shop that sells tea sets and porcelain statues:

Fine Tea China
322-335 Swindle St, Melbourne VIC 3000
ABN: 24 664 237 190



Invoice: S.90 Tax invoice
Terms: 5/7, n/30

Charge to: *Porcelain Magic*
245 Bulla Rd, Keilor VIC 3043
ABN: 82 100 346 275

Date	Details	Qty	Unit Price \$	Total \$
4 May 2015	Fine China Tea Sets	10	120	1200
	GST (10%)			120
	Total			\$1 320

EXERCISES

Required

- a Identify** the source document above, and **describe** the transaction it verifies.
- b Record** this transaction in the appropriate special journal of Porcelain Magic.
- c Show** the debit and credit entries necessary to record this transaction in the General Ledger of Porcelain Magic.
- d Explain** why the GST on credit purchases does not affect the valuation of stock.

EXERCISE 5.2

PURCHASES JOURNAL

 page 67

Phil's Pianos has provided the following list of transactions for August 2015:

- | | | |
|------|----|---------------------------------------------------------------------------------------------------------------|
| Aug. | 3 | Purchased 5 grand pianos from Yamaha on credit. Each grand piano cost \$4 000 plus GST of \$400 (Inv. Yh3764) |
| | 8 | Bought 6 upright pianos from Bernstein at a total cost of \$6 600 including \$600 GST (Inv. B4801) |
| | 15 | Purchased 2 standard pianos from Yamaha on credit for \$2 000 (plus GST) each (Inv. Yh3784) |
| | 24 | Received delivery of 4 grand pianos from Rachman, at a total cost of \$17 160 including GST (Inv. R132) |
| | 29 | Purchased 3 upright pianos from Bernstein at a cost of \$1 320 (including GST) each (Inv. B4816) |

Required

- a **Explain** the role of the Purchases Journal.
- * b **Record** the transactions for August 2015 in the Purchases Journal of Phil's Pianos.
- c **Post** the Purchases Journal to the relevant accounts in the General Ledger of Phil's Pianos.
- d **Post** the Purchases Journal to the relevant accounts in the Creditors Ledger of Phil's Pianos.
- e **Explain** one difference in the way the Purchases Journal is posted to the General Ledger compared to the way it is posted to the Creditors Ledger.
- f **Explain** how using a system of control accounts and subsidiary ledgers can improve the Reliability of the reports.

EXERCISE 5.3

PURCHASES JOURNAL

 page 69

Glow Warm is a lighting store owned by Donald Dimm. As at 1 April 2015:

- the General Ledger showed the following balances:
 - GST Clearing \$ 1 700 CR
 - Stock Control 8 000
 - Creditors Control 4 070
- the Creditors Ledger showed the following balances:
 - Shock Electrics \$ 1 320
 - Bright Lights 2 750

Donald has recorded the firm's credit purchases for April 2015 in the Purchases Journal:

Purchases Journal

Date	Creditor	Invoice number	Stock Control	GST	Creditors Control
April 5	Shock Electrics	I. 251	2 500	250	2 750
15	Bright Lights	CX 34	3 500	350	3 850
19	Shock Electrics	I. 268	2 000	200	2 200
26	Bright Lights	CX 40	4 000	400	4 400
	Totals		12 000	1 200	13 200

Additional information:

On 30 April 2015, Glow Warm paid \$1 320 to Shock Electrics. This was the only payment to creditors for the month of April.

Required

- a **Explain** why the invoices in the Purchases Journal do not run in sequence.
- b **Post** the Purchases Journal to the General Ledger and Creditors Ledger for Glow Warm.
- c **State** the effect of GST on credit purchases on the following items:
 - Stock Control
 - Creditors Control
 - GST Clearing.
- d **Record** the payment to Shock Electrics in the General Ledger and Creditors Ledger.
- * e **Balance** the creditors control account.
- * f **Foot** the subsidiary ledger accounts and **prepare** a Creditors Schedule as at 30 April 2015.



EXERCISE 5.4


SALES JOURNAL

 page 71

Pickwick Books is a bookshop in South Melbourne. The following source document was handed to its accountant by a member of the sales staff:

Additional information:

Pickwick Books applies a 100% mark up to all its stock.

 Pickwick Books 1102 Clarendon St South Melbourne VIC 3205 12/6/15		TAX INVOICE ABN: 09 990 656 432 Invoice: 46 Terms: 30 days Duplicate		
Charge to: Grant Hugh 19 Cobbam Drive, Glen Waverley VIC 3150				
Item	Description	Qty	Unit Cost	\$
T01	Children's Bible	5	50	250.00
	GST			25.00
	Total		\$	275.00

Required

- Identify** the source document above, and **describe** the transaction it verifies.
- Record** this transaction in the appropriate special journal of Pickwick Books.
- Show** the debit and credit entries necessary to record this transaction in the General Ledger of Pickwick Books.
- Explain** why GST charged on credit sales increases the GST liability of Pickwick Books.

EXERCISE 5.5

SALES JOURNAL

 page 72

Polly Junior sells children's furniture at a 100% mark-up, and has provided the following list of transactions for September 2015:

- | | | |
|-------|----|----------------------------------------------------------------------------------------------|
| Sept. | 5 | Sold 2 bookcases on credit to Rydell Primary School for \$240 (plus \$24 GST) each (Inv. 75) |
| | 11 | Sold 3 children's beds to Camp Somerset for \$660 including \$60 GST per bed (Inv. 76) |
| | 16 | Sold 6 desks on credit to Rydell Primary School, charging \$900 plus GST (Inv. 77) |
| | 23 | Sold 4 children's beds to Camp Somerset for a total invoice price of \$2 640 (including GST) |
| | 29 | Sold 1 bookcase to 123 Playgroup for \$240 plus \$24 GST (Inv. 79) |

Required

- State** the invoice number for the transaction on 23 September 2015.
- * **Record** the transactions for September 2015 in the Sales Journal of Polly Junior.
- Post** the Sales Journal to the relevant accounts in the General Ledger of Polly Junior.

- d Post** the Sales Journal to the relevant accounts in the Debtors Ledger of Polly Junior.
- e Explain** how using a system of control accounts and subsidiary ledgers can improve the management of debtors.

EXERCISE 5.6

SALES JOURNAL



page 74

Ernie Walsh is the owner of EJ HiFi. He sells stereo equipment, and has just won a lucrative contract to fit out a chain of hotels with stereo equipment. As at 1 June 2015:

- the General Ledger showed the following balances
 - GST Clearing \$ 800 CR
 - Debtors Control 2 750
 - Stock Control 12 900
- the Debtors Ledger showed the following balances
 - DJ Warehouse \$ 2 200
 - Holden Hotels 550

The firm's credit sales for June 2015 are recorded in the Sales Journal below:

Sales Journal

Date	Debtor	Invoice number	Cost of Sales	Sales	GST	Debtors Control
June 4	Holden Hotels	86	1 000	1 500	150	1 650
15	Holden Hotels	87	2 000	3 000	300	3 300
21	DJ Warehouse	88	800	1 200	120	1 320
28	Holden Hotels	89	1 400	2 100	210	2 310
	Totals		5 200	7 800	780	8 580

Additional information:

- On 30 June 2015, EJ HiFi received \$2 200 from Holden Hotels.
- Terms of 30 days are offered to credit customers.

Required

- a State** one reason why the invoice numbers recorded in the Sales Journal run in sequence.
- b Post** the Sales Journal to the General Ledger and Debtors Ledger of EJ HiFi.
- c State** the effect of GST on credit sales on the following items:
 - Sales Revenue
 - Debtors Control
 - GST Clearing.
- d Record** the receipt from Holden Hotels in the General Ledger and Debtors Ledger.
- * **e Balance** the Debtors Control account.
- * **f Foot** the subsidiary ledger and **prepare** a Debtors Schedule as at 30 June 2015.

EXERCISE 5.7

CREDIT JOURNALS


 page 76

Ben Hewitt and Laura Cartwright left their former careers and decided to start a small business called H&C Tennis, selling tennis equipment from a factory in Bentleigh. The following documents have not yet been recorded in the journals for May 2015:

DOCUMENT A

		<h2>H&C Tennis</h2> <p>120 Norman St Bentleigh VIC 3204 ABN: 94 863 021 005</p>		<p>Invoice: 92 DUPLICATE Terms: 10/7, n/30 TAX INVOICE</p>	
<p>Charge to: Elicia Molik 4 White Street, Elwood VIC 3184</p>					
Date	Details	Qty	Price \$		
May 6	Racquets – Spaulding Brand	8	66.00		
	Total		528.00		
	GST included in total		48.00		

DOCUMENT B

<h2>Top Quality Racquets</h2> <p>254 Union Rd, Ascot Vale VIC 3032 ABN: 66 090 786 511</p>				<p>Invoice: A80 ORIGINAL Terms: 10/7, n/30</p>	
<p>Charge to: H&C Tennis Norman Street Bentleigh VIC 3204</p>					
Date	Details	Total			
May 9	30 Spaulding tennis racquets: \$30 (plus GST) each	\$990.00			
	Total invoice amount includes GST of \$90				

Required

- Referring to one qualitative characteristic, **explain** the importance of source documents in the accounting process.
- Referring to the information provided, **identify** the source document that verifies a credit sale. **Justify** your answer.
- Given that stock is sold at 100% mark-up, **record** Documents A and B in the special journals of H&C Tennis.
- Referring only to the information provided, **state** whether H&C Tennis would have a GST asset or GST liability. **Justify** your answer.

EXERCISE 5.8

CREDIT JOURNALS



page 77

Glen Coppel operates a sports store called Coppel Sports. At 1 March 2015, his accounting records showed the following balances:

Stock Control	\$ 9 000	GST Clearing	\$ 200 CR
Debtors Control	6 490	Creditors Control	2 750
– Gunter Basketball Club	990	– München Sports	1 100
– Ruddersfield FC	2 200	– AB Sports Gear	1 650
– Central Warriors Soccer Club	3 300		

The following occurred during March 2015:

- March 1 Sold stock to Central Warriors for \$770 (including \$70 GST). The stock had a cost price of \$420 (Inv. 35)
- 4 Received \$2 200 cash from Ruddersfield FC (Rec. 21)
- 7 Purchased sporting goods on credit from München Sports (Inv. E93) worth \$600 plus \$60 GST
- 10 Gunter Basketball Club purchased sporting goods worth \$500 plus GST, with a cost price of \$310 (Inv. 36)
- 12 Paid AB Sports Gear \$1 000 on account (Ch. 244)
- 16 Sold stock to Central Warriors – total invoice price \$880 (including GST). The stock was originally purchased for \$600 plus \$60 GST (Inv. 37).
- 20 Purchased stock for \$900 (plus GST) from AB Sports Gear (Inv. 82)
- 23 Sold sporting goods to Ruddersfield FC for \$1 650 (including GST). The stock had a cost price of \$1 200 plus GST (Inv. 38).
- 28 Purchased sporting goods from München Sports (Inv. E113) for \$1 320 including GST.

Required

- * **a Record** the transactions for March 2015 in the appropriate special journals of Coppel Sports.
- b Post** the Sales Journal and Purchases Journal to the General Ledger and subsidiary ledgers of Coppel Sports.
- * **c Balance** the Debtors Control and Creditors Control accounts.
- * **d Foot** the subsidiary ledger accounts and **prepare** a Debtors Schedule and a Creditors Schedule as at 31 March 2015.
- e Explain** how GST Clearing would be reported in the Balance Sheet of Coppel Sports as at 31 March 2015.
- f Explain** why the records of Coppel Sports would show Gunter Basketball Club with a debit balance, whereas the records of Gunter Basketball Club would show Coppel Sports with a credit balance.

EXERCISE 5.9

CREDIT JOURNALS



page 81

Irving Creese operates a store called Soft Shirts, which had the following balances as at 1 April 2015.

Stock Control	\$ 3 000	GST Clearing	\$ 200 CR
Debtors Control	4 070	Creditors Control	4 730
– Daniel Jones	2 090	– Jade	3 190
– Mier Stores	1 980	– Country Style	1 540

The transactions for April 2015 have been recorded in the journals below:

Sales Journal

Date	Debtor	Invoice number	Cost of Sales	Sales	GST	Debtors Control
April 4	Mier Stores	85	1 000	1 500	150	1 650
8	Daniel Jones	86	1 400	2 100	210	2 310
15	Big X	87	500	750	75	825
21	Daniel Jones	88	800	1 200	120	1 320
28	Mier Stores	89	1 200	1 800	180	1 980
	Totals		4 900	7 350	735	8 085

Purchases Journal

Date	Creditor	Invoice number	Stock	GST	Creditors Control
April 5	Jade	I. 251	2 400	240	2 640
12	Country Style	CX 34	1 800	180	1 980
19	Country Style	I. 268	2 300	230	2 530
26	Jade	CX 40	1 100	110	1 210
	Totals		7 600	760	8 360

Additional information:

- On 30 April 2015, Soft Shirts paid \$5 830 to Jade.
- On 30 April 2015, Soft Shirts received \$3 630 from Mier Stores.

Required

- State** whether special journals belong to the input, processing or output stage of the accounting process. **Justify** your response.
- Post** the journals to the General Ledger and subsidiary ledgers of Soft Shirts.
- * **Balance** the Debtors Control and Creditors Control accounts.
- * **Prepare** a Debtors Schedule and Creditors Schedule for Soft Shirts as at 30 April 2015.
- Explain** how GST Clearing would be reported in the Balance Sheet of Soft Shirts as at 30 April 2015.
- Explain** two benefits that Soft Shirts derives by adopting a system of control accounts and subsidiary ledgers for debtors and creditors.

Additional information:

On 4 May 2015, Soft Shirts purchased office furniture on credit from Desk World for \$1 500 plus \$150 GST (Inv. 315).

Required

- Explain** why Inv. 315 should **not** be recorded in the Purchases Journal.

Where are we headed?

After completing this chapter, you should be able to:

- **record** cash payments (with GST and discounts) in the Cash Payments Journal
- **post** the Cash Payments Journal to the General Ledger and Creditors Ledger
- **record** cash receipts (with GST and discounts) in the Cash Receipts Journal
- **post** the Cash Receipts Journal to the General Ledger and Debtors Ledger
- **identify** the costs and benefits of offering discounts to customers
- **calculate** discount expense and discount revenue
- **identify** the effect of discounts on the accounting equation
- **identify** the effect of GST on the recording of cash payments and cash receipts
- **record** a GST refund and GST settlement in the cash journals and General Ledger.

..... CHAPTER 6

SPECIAL JOURNALS 2: CASH JOURNALS

KEY TERMS

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

- Cash Payments Journal
- Cash Receipts Journal
- GST settlement
- GST refund
- settlement discount
- discount revenue
- discount expense.

6.1 THE CASH PAYMENTS JOURNAL

The special journals described in Chapter 5 dealt solely with credit transactions: the Purchases Journal summarised all stock purchased on credit, and the Sales Journal summarised all stock sold on credit. By summarising these transactions, it was possible to post the Purchases Journal to the General Ledger in only three entries, and the Sales Journal in only five:

Purchases Journal	DR	Stock Control
	DR	GST Clearing
	CR	Creditors Control*
Sales Journal	DR	Debtors Control*
	CR	Sales Revenue
	CR	GST Clearing
		and
	DR	Cost of Sales
	CR	Stock Control

* Individual transactions must also be posted to the individual accounts in the creditors and debtors subsidiary ledgers.

The same approach (that is, summarising similar transactions before posting them to the General Ledger) can be applied to cash receipts and cash payments, with the Cash Payments Journal used to summarise all cash paid, and the Cash Receipts Journal used to summarise all cash received.

EXAMPLE

Consider the following list of transactions for June 2015 for Green Thumb Plants:

June 1	Paid \$200 (plus \$20 GST) for stock (Cheque 22)
5	Cash paid to creditor, Mills Bros \$400 (Cheque 23)
8	Paid \$190 wages (Cheque 24)
10	Paid electricity \$150, plus GST (Cheque 25)
13	Owner withdrew \$100 cash (Cheque 26)
15	Purchased stock for \$242, including \$22 GST (Cheque 27)
22	Paid \$190 wages (Cheque 28)
24	Payment to creditor – Johnson Ltd \$350 (Cheque 29)
29	Purchased new vehicle for \$13 200 including GST (Cheque 30)

This list of transactions is far more diverse than a straight list of credit sales or credit purchases. It includes cash payments for stock, payments to creditors, payments for wages, the cash purchase of a vehicle, and even cash drawings by the owner. How can these transactions be summarised in a single journal? In terms of debits and credits, what does each of the transactions above have in common?

The answer, of course, lies in the fact that each of the transactions above is a *cash payment*, and therefore each has exactly the same effect on the ledger account for Bank.

Each cash payment requires a credit to the Bank account.

While it is true that the *debit* part of each entry is different, and only some involve GST, each transaction involves the same *credit* entry. Rather than recording five or six credits to the Bank account (or, in the case of a real business, many more than that) these transactions can be summarised in a **Cash Payments Journal**.

Cash Payments Journal
an accounting record
summarising all cash paid
during a month

REVIEW QUESTIONS 6.1

- 1 **Explain** the benefit of recording transactions in special journals.
- 2 **List** four transactions that would be recorded in the Cash Payments Journal.
- 3 **Explain** what each cash payment has in common in terms of its effect on the General Ledger.

6.2 RECORDING TRANSACTIONS IN THE CASH PAYMENTS JOURNAL

A typical multi-column Cash Payments Journal would look like the one for Green Thumb Plants shown in Figure 6.1.

Figure 6.1 Cash Payments Journal

Date ¹	Details ²	Cheque number ³	Bank ⁴	Creditors Control ⁵	Stock Control ⁵	Wages ⁵	Sundries ⁶	GST ⁷
June 1	Stock Control	22	220		200			20
5	Mills Bros	23	400	400				
8	Wages	24	190			190		
10	Electricity	25	165				150	15
13	Drawings	26	100				100	
15	Stock Control	27	242		220			22
22	Wages	28	190			190		
24	Johnson Ltd	29	350	350				
29	Vehicle	30	13 200				12 000	1 200
	Totals		15 057	750	420	380	12 250	1 257

Notes for recording in the Cash Payments Journal

1 Date

As with all journals, transactions are recorded in date order, on the date that they occur; although only the totals are posted to the General Ledger at the end of the month.

2 Details

Because every cash payment requires a credit to the Bank ledger account, the only part of the double entry that must be specified for each payment is the *other* account: the account to be *debited*. Note how the name of each individual creditor is listed when payments are made to creditors. The total paid to creditors (\$750) will be posted to the Creditors Control account in the General Ledger, but the individual transactions will be posted to the individual creditors' accounts in the Creditors Ledger.

3 Cheque number

In order to satisfy the demands of *Reliability*, the source document is identified. A cheque number is identifiable from the cheque butt, and businesses should be encouraged to make payments by cheque for all but the smallest amounts (see Chapter 4). All cheque numbers should be recorded in the Cash Payments Journal, even if the cheque is cancelled, so that all cheques are accounted for and theft is discouraged or, if it occurs, detected.

4 Bank

The **amount of the payment** must be recorded first in the Bank column, to allow calculation of the total cash paid. Where GST is involved, the amount recorded in the Bank column *includes the GST amount*. This amount will be posted to the Bank ledger account as one total at the end of the month.

5 Classification columns

The amount of each transaction is recorded twice: once in the Bank column to record the cash paid, and a second time in a classification column to record **what the cash was paid for**. These classification columns allow for frequent cash payments to be summarised, and the total posted to the appropriate account. The headings used for each of these classification columns will, of course, vary between businesses, as their transactions vary. In Figure 6.1, frequent cash payments are made to creditors, for stock and for wages, and so these transactions have their own classification column.

6 Sundries

Any cash payments that are infrequent must be recorded in the sundries column. The cash purchase of the vehicle is unlikely to occur more than once, and the payment of electricity is infrequent, so they do not warrant their own columns.

7 GST

For transactions that incur GST, this column is where the **GST paid** (10% of the purchase price) is recorded. The GST increases the amount paid out of the Bank account, but does not affect the value of whatever has been purchased (which, in this case, is stock, electricity and a vehicle).

Double-checking mechanism

At the end of the month, each column in the Cash Payments 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 columns. Using the figures from Figure 6.1, the double-check would show:

	Creditors Control	750	=	Bank	15 057
+	Stock Control	420			
+	Wages	380			
+	Sundries	12 250			
+	GST Clearing	1 257			
	Total debits	<u>\$15 057</u>		Total credits	<u>\$15 057</u>

If these amounts do not match, then a transaction has been recorded incorrectly in the Cash Payments Journal, and the journal cannot be posted to the ledger until the error is rectified.

REVIEW QUESTIONS 6.2

- 1 **State** why the Cash Payments Journal only identifies the account to be debited in the Details column.
- 2 **Identify** the source document used to verify the transactions recorded in the Cash Payments Journal.
- 3 **Explain** how the headings for the classification columns in the Cash Payments Journal are determined.
- 4 **Explain** why the name of each creditor is identified in the Details column.
- 5 **Explain** the double-checking mechanism in the Cash Payments Journal.
- 6 **State** the effect of GST paid on:
 - the amount of cash paid for purchases
 - the value of the asset/expense purchased.

6.3 POSTING THE CASH PAYMENTS JOURNAL TO THE GENERAL LEDGER

Once the columns in the Cash Payments Journal have been totalled, these totals can be posted to the General Ledger accounts at the end of the month. Using the Cash Payments Journal in Figure 6.1, the General Ledger entries would be:

DR	Creditors Control	\$ 750	
DR	Stock Control	420	
DR	Wages	380	
DR	Electricity	150	
DR	Drawings	100	
DR	Vehicle	12 000	
DR	GST Clearing	1 257	
CR	Bank		15 057

Although there is only one credit entry (to the Bank account) and seven debit entries, the total debits and credits still match. These entries form a matching double entry.

These journal totals would be posted to the General Ledger only at the end of the month (in this case, 30 June 2015). Even the entries in the Sundries column, which must be posted to the individual accounts (in this case, Electricity, Drawings and Vehicle), are posted at the end of the month. This is shown in Figure 6.2.

Figure 6.2 General Ledger: posting the Cash Payments Journal

General Ledger Bank (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 1	Balance	5 000	June 30	Cash payments	15 057

Creditors Control (L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 30	Bank	750	June 1	Balance	900

Figure 6.2 (cont.) General Ledger: posting the Cash Payments Journal**Stock Control (A)**

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 1	Balance	2 000			
30	Bank	420			

Wages (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 30	Bank	380			

Electricity (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 30	Bank	150			

Drawings (– OE)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 30	Bank	100			

Vehicle (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$

The Cash Payments Journal is posted to the General Ledger using the column totals at the end of the month.

June 30	Bank	12 000			
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GST Clearing (A or L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 30	Bank	1 257			

Cross-references in the Bank account

In all the ledger accounts shown in this text so far, the cross-reference has been the name of the other ledger account affected by each transaction. Even when posting the Cash Payments Journal, the cross-reference in the Creditors Control, Stock Control, Wages, Electricity, Drawings, Vehicle and GST Clearing accounts was **Bank**.

However, the cross-reference in the Bank account itself does not follow this rule; it is not the name of a ledger account. This is because there is no single account linked to the **\$15 057** paid out of the Bank account; it has been paid for a number of different purposes. For this reason, the cross-reference in the Bank account must simply be **Cash Payments** to indicate that there are a number of other accounts linked to this total payments figure.

The use of this cross-reference also means any GST paid (**\$1 257**) is included in the total cash paid, and the GST Clearing account does not need to be noted in the cross-reference. Because it is the only entry in the GST Clearing account, the debit entry means that this business currently has a current asset in relation to GST.

REVIEW QUESTIONS 6.3

- 1 **Explain** how the Cash Payments Journal is posted to the General Ledger.
- 2 **Show** the debit and credit entries necessary to post the Cash Payments Journal (in Figure 6.1) to the General Ledger.
- 3 **Explain** why the cross-reference used when the Cash Payments Journal is posted to the Bank account is not the name of a ledger account.
- 4 **Explain** the effect of GST paid on:
 - Bank
 - GST Clearing.

6.4 POSTING THE CASH PAYMENTS JOURNAL TO THE CREDITORS (SUBSIDIARY) LEDGER

The same approach that was taken to posting the Purchases Journal (in Chapter 5) must be taken when posting the Cash Payments Journal. In the General Ledger, the total paid to creditors is debited to the Creditors Control account at the end of the month. In the Creditors Ledger, however, the individual transactions must be debited to the account of each individual creditor on the day that they occur. This is shown in Figure 6.3.

Figure 6.3 Creditors Ledger: posting the Cash Payments Journal

Creditors Ledger Mills Bros (L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 5	Bank	400	June 1	Balance	500

Johnson Ltd (L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 24	Bank	350	June 1	Balance	400

The Cash Payments Journal is posted to the Creditors Ledger using individual transactions on the day they occur.

REVIEW QUESTIONS 6.4

- 1 **Identify** two differences in the way the Cash Payments Journal is posted to the Creditors Ledger (compared to the way it is posted to the General Ledger).
- 2 **Explain** the cross-reference used in the individual creditors accounts.

6.5 THE CASH RECEIPTS JOURNAL

The transactions in the Cash Payments Journal had one ledger entry in common – they all involved a credit to the Bank account in the General Ledger. The same principle can be applied to all cash receipts, but from the opposite perspective:

Each cash receipt requires a debit to the Bank account.

Cash Receipts Journal

an accounting record that summarises all cash received during a month

While the credit part of each entry will vary according to the source of the cash received, each cash receipt involves the same debit entry to Bank. This is true whether the cash is received from cash sales, a debtor, the owner (via a capital contribution) or even from the receipt of a loan. As with the Cash Payments Journal, rather than a separate debit to the Bank account for each individual transaction (and these could number 30 or 40 per month) these transactions can be summarised in a **Cash Receipts Journal**.

REVIEW QUESTIONS 6.5

- 1 List** four transactions that would be recorded in the Cash Receipts Journal.
- 2 Explain** what each cash receipt has in common in terms of its effect on the General Ledger.

6.6 RECORDING TRANSACTIONS IN THE CASH RECEIPTS JOURNAL

A multi-column Cash Receipts Journal would typically look like the one for Green Thumb Plants shown in Figure 6.4:

Figure 6.4 Cash Receipts Journal

Date ¹	Details ²	Receipt number ³	Bank ⁴	Debtors Control ⁵	Cost of Sales ⁶	Sales ⁵	Sundries ⁷	GST ⁸
June 1	Cash Sales	11	440		210	400		40
5	Cash Sales	12	550		270	500		50
8	G. Matthews	13	300	300				
11	Cash Sales	14	660		330	600		60
14	T. May	15	200	200				
19	Capital	16	10 000				10 000	
22	Cash Sales	17	220		120	200		20
27	G. Matthews	18	100	100				
	Totals		\$ 12 470	600	930	1 700	10 000	170

Notes for recording in the Cash Receipts Journal

1 Date

As with all journals, transactions are recorded in date order, on the date that they occur; although the totals are posted to the General Ledger at the *end* of the month.

2 Details

Because every cash receipt requires a debit to the Bank ledger account, the only part of the double entry that must be specified for each receipt is the account to be credited. Note how the name of each debtor is listed when cash is received from debtors. The total received from debtors (\$600) will be posted to the Debtors Control account in the General Ledger, but the individual transactions will be posted to the individual debtors' accounts in the Debtors Ledger.

3 Receipt number

With cash receipts, the source document itself should be a cash receipt, generated either manually or by computer or cash register. Because these receipts are issued by the firm (in this case, Green Thumb Plants), the receipt numbers should run in sequence.

4 Bank

The **amount received** must be recorded first in the Bank column, to allow calculation of the total cash received. Where GST is involved, the amount recorded in the Bank column *includes the GST amount*. This amount will be posted to the Bank ledger account as one total, at the *end* of the month.

5 Classification columns

As with the Cash Payments Journal, the amount of each transaction 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, and the total posted to the ledger account. In this example, the frequent cash receipts that have their own classification column are Debtors Control and Sales.

6 Cost of Sales

One of the complicating factors in recording cash sales is the fact that each sale will involve two double entries: one at **selling price** and one at **cost price**. The amount of **cash received from the sale** (recorded at selling price) is recorded in the Bank and Sales columns. But because each sale decreases stock and creates an expense (**Cost of Sales**) it is also necessary to show the **cost price of each sale** in the Cash Receipts Journal. In this case, this will be posted to the General Ledger as:

DR	Cost of Sales (E)	\$ 930	
CR	Stock Control (A)		930

7 Sundries

This column fulfils exactly the same function in the Cash Receipts Journal as it does in the Cash Payments Journal. Infrequent cash receipts must be recorded in the Sundries column.

8 GST

For cash sales, this is where the **GST received** (10% of the selling price) is recorded. The GST increases the amount received, as shown in the Bank column, but does not affect sales revenue earned, nor the cost of the sale.

STUDY TIP

Remember that GST does not affect the valuation of stock, nor the revenue earned from its sale.

Double-checking mechanism

In common with the Cash Payments Journal, the Cash Receipts Journal has a checking mechanism, but it is complicated by one factor: the use of the Cost of Sales column. At the end of the month, 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, **except Cost of Sales**. This is because Cost of Sales does not record cash received from sales; it only records the cost price of the stock that has been sold. It records an *outflow of stock*, rather than an *inflow of cash*.

Using the amounts from Figure 6.4, the double-check would show:

Bank	12 470	=	Debtors Control	600	
			+	Sales	1 700
			+	Sundries	10 000
			+	GST Clearing	170
Total debits	<u>\$12 470</u>		Total credits	<u>\$12 470</u>	

REVIEW QUESTIONS 6.6

- 1 **State** why the Cash Receipts Journal only identifies the account to be credited in the Details column.
- 2 **Identify** the source document used to verify the transactions recorded in a Cash Receipts Journal.
- 3 **Explain** how the headings for the classification columns in the Cash Receipts Journal are determined.
- 4 **Explain** why the name of each debtor is identified in the Details column.
- 5 **Explain** why it is necessary to use a Cost of Sales column in the Cash Receipts Journal.
- 6 **Explain** the double-checking mechanism in the Cash Receipts Journal.
- 7 **State** the effect of GST received on:
 - the amount of cash received from cash sales
 - the revenue earned from cash sales.

6.7 POSTING THE CASH RECEIPTS JOURNAL TO THE GENERAL LEDGER

Once the columns in the Cash Receipts Journal have been totalled, these totals can be posted to the General Ledger accounts. Once again, this is done only at the end of the month; that is, 30 June. Using the Cash Receipts Journal in Figure 6.4, the General Ledger entries would be:

DR	Bank	\$12 470	
CR	Debtors Control		600
CR	Sales		1 700
CR	Capital		10 000
CR	GST Clearing		170

This is a matching double entry, but it does not account for all the information in the Cash Receipts Journal; we must also record the **cost price** of the sales made. This is done by posting an additional double entry:

DR	Cost of Sales	\$ 930	
CR	Stock Control		930

Figure 6.5 shows how the General Ledger accounts would appear after posting the Cash Receipts Journal.

Figure 6.5 General Ledger: posting the Cash Receipts Journal

General Ledger					
Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 1	Balance	5 000	June 30	Cash payments	15 057
30	Cash receipts	12 470			

Debtors Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 1	Balance	1 100	June 30	Bank	600

Sales (R)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			June 30	Bank	1 700

Capital (OE)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 1	Balance	42 000	June 30	Bank	10 000

GST Clearing (A or L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 30	Bank	1 257	June 30	Bank	170

Stock Control (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 1	Balance	2 000	June 30	Cost of Sales	930
30	Bank	420			

Cost of Sales (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 30	Stock Control	930			

The Cash Receipts Journal is posted to the General Ledger using the column totals at the end of the month.

Cross-references in the Bank account

As with the Cash Payments Journal, the amount posted to the Bank account (**\$12 470**) is not linked to one account, but many (in this case, four: Debtors Control, Sales, Capital and GST Clearing). The cross-reference in the Bank cannot, therefore, be the name of one ledger account; it must be **Cash Receipts** to indicate that there are a number of other accounts linked to this total receipts figure.

The GST received (**\$170**) is simply included in the total cash received, and the GST Clearing account does not need to be noted in the cross-reference. But in the GST Clearing, Debtors Control, Sales and Capital accounts the cross-reference can, and therefore must, be the name of the other ledger account involved: **Bank**.

REVIEW QUESTIONS 6.7

- 1 Explain** how the Cash Receipts Journal is posted to the General Ledger.
- 2 Show** the debit and credit entries necessary to post the Cash Receipts Journal (in Figure 6.4) to the General Ledger.
- 3 Explain** why the cross-reference used when the Cash Receipts Journal is posted to the Bank account is not the name of a ledger account.
- 4 Explain** the effect of GST received on:
 - Bank
 - GST Clearing.

6.8 POSTING THE CASH RECEIPTS JOURNAL TO THE DEBTORS (SUBSIDIARY) LEDGER

Among other functions, Figure 6.4 records the cash received from two debtors, T. May and G. Matthews. The total received from debtors (\$600) is credited to the Debtors Control account at the end of the month (that is, 30 June 2015), but the individual transactions – on 8, 14 and 27 June – must be credited to the account of each individual debtor in the Debtors Ledger on the day they occur. This is shown in Figure 6.6.

Figure 6.6 Debtors Ledger: posting the Cash Receipts Journal

Debtors Ledger					
G. Matthews (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 1	Balance	800	June 8	Bank	300
			27	Bank	100

T. May (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 1	Balance	300	June 14	Bank	200

The Cash Receipts Journal is posted to the Debtors Ledger using individual transactions on the day they occur.

REVIEW QUESTIONS 6.8

- Identify** two differences in the way the Cash Receipts Journal is posted to the Debtors Ledger (compared to the way it is posted to the General Ledger).
- Explain** how the cross-reference used in the individual debtor accounts is determined.

6.9 GST SETTLEMENT AND GST REFUND

At the end of the reporting period, each business will balance its GST Clearing account to determine whether it has a GST liability or a GST asset. After the end of its Business Activity Statement (BAS) period, when it must complete and submit its BAS, the business must pay any GST owing to the ATO as a GST settlement, or will receive a GST refund from the ATO for excess GST.

GST settlement

If GST on sales is greater than GST on purchases, the business will be required to make a **GST settlement**; that is, settle the GST owing by making a cash payment to the ATO.

GST settlement

a cash payment made to the ATO to settle the liability that occurs when GST on sales is greater than GST on purchases

EXAMPLE

Holding Furniture has provided the following information about its GST transactions for September 2015:

Opening balance – GST Clearing	\$ 600	CR
GST received on cash sales ¹	1 200	
GST charged to debtors on credit sales ²	2 400	
GST paid on cash purchases ³	1 700	
GST charged by creditors on credit purchases ⁴	1 100	

Based on these figures, the business has charged and received \$3 600 worth of GST on its sales, but only paid and been charged \$2 800 worth of GST on its purchases. On top of the \$600 CR opening balance, this means that as at 30 September 2015 it owes the ATO \$1 400, which would be reported in the Balance Sheet as a current liability. Some time in October 2015, a GST settlement of \$1 400 would need to be paid to the ATO.

Assuming this GST settlement was paid on 4 October 2015 (Ch. 31), it would be recorded in the Cash Payments Journal as is shown in Figure 6.7:

Figure 6.7 Cash Payments Journal: recording a GST settlement

Cash Payments Journal

Date	Details	Cheque number	Bank	Creditors Control	Stock Control	Wages	Sundries	GST
Oct. 4	GST Clearing	31	1400				1 400	

Note that although the GST settlement is paid, it is not recorded in the GST column, as this column is only for GST paid to suppliers, on purchases. By contrast, a GST settlement is paid to the ATO, only infrequently, to settle a GST debt. As a result, it must be identified separately, and so is recorded in the Sundries column. It will also be reported separately in the Cash Flow Statement (as will be explained in Chapter 12).

The balance of the GST Clearing account would now be settled or cleared, as is shown in Figure 6.8.

Figure 6.8 GST Clearing account with GST settlement

GST Clearing (A or L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Bank ³	1 700	Sept. 1	Balance	600
	Creditors Control ⁴	1 100	30	Bank ¹	1 200
	Balance	1 400		Debtors Control ²	2 400
		4 200			4 200
Oct. 31	Bank	1 400	Oct. 1	Balance	1 400

Remember that although the GST settlement will be recorded in the Cash Payments Journal when it is paid on 4 October 2015, the Cash Payments Journal will not be posted to the General Ledger until 31 October 2015.

GST refund

If GST on purchases is greater than GST on sales, the business will be entitled to a **GST refund** from the ATO.

EXAMPLE

GST refund

a cash receipt from the ATO to refund the excess that occurs when GST on sales is less than GST on purchases

Garner Electronics has provided the following information about its GST transactions for June 2015:

Opening balance – GST Clearing	\$ 200	CR
GST received on cash sales ¹	3 200	
GST charged to debtors on credit sales ²	1 600	
GST paid on cash purchases ³	3 900	
GST charged by creditors on credit purchases ⁴	2 000	

Based on these figures, the business has \$4 800 worth of GST on sales, but has \$5 900 worth of GST on purchases. Even counting the \$200 CR opening balance, it still means a \$900 debit balance, which would be reported as a current asset in the Balance Sheet as at 30 June 2015. Then, some time during July 2015, the business is due to receive a **GST refund** from the ATO of \$900.

Assuming this **GST refund** was received on 8 July 2015 (Rec. 40), it would be recorded in the Cash Receipts Journal as is shown in Figure 6.9:

Figure 6.9 Cash Receipts Journal: recording a GST refund

Cash Receipts Journal

Date	Details	Receipt number	Bank	Debtors Control	Cost of Sales	Sales	Sundries	GST
July 8	GST Clearing	40	900				900	

The GST column is only for GST received from customers for cash sales, whereas the GST refund is received from the ATO itself. Consequently, it is recorded separately in the Sundries column, and will be reported separately in the Cash Flow Statement (see Chapter 12).

The GST refund would have the same effect as a GST settlement in terms of clearing the previous balance in the GST Clearing account, as is shown in Figure 6.10:

Figure 6.10 GST Clearing account with GST settlement

GST Clearing (A or L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 30	Bank ³	3 900	June 1	Balance	200
	Creditors Control ⁴	2 000	30	Bank ¹	3 200
				Debtors Control ²	1 600
				Balance	900
		5 900			5 900
July 1	Balance	900	July 31	Bank	900

GST cash flows

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

- GST **paid** on cash purchases (from the Cash Payments Journal)
- GST **received** on cash sales (from the Cash Receipts Journal)
- GST **settlement** paid (from the Sundries column of the Cash Payments Journal)
- GST **refund** received (from the Sundries column of the Cash Receipts Journal).

The GST charged to debtors on credit sales increases the GST liability, but it is not a cash flow. The same applies to GST charged by creditors on credit purchases, which decreases the GST liability, but does not involve a payment of cash.

REVIEW QUESTIONS 6.9

- 1 **Explain** the circumstances that would lead the GST Clearing account to have a credit balance.
- 2 **Explain** how a credit balance in the GST Clearing account would be reported in the Balance Sheet.
- 3 **Define** the term 'GST settlement'.
- 4 **Explain** why a GST settlement is not recorded in the GST column in the Cash Payments Journal.
- 5 **Explain** the circumstances that would lead the GST Clearing account to have a debit balance.
- 6 **Explain** how a debit balance in the GST Clearing account would be reported in the Balance Sheet.
- 7 **Define** the term 'GST refund'.
- 8 **Explain** why a GST refund is not recorded in the GST column in the Cash Receipts Journal.
- 9 **Identify** the two transactions relating to GST that involve a cash inflow.
- 10 **Identify** the two transactions relating to GST that involve a cash outflow.
- 11 **Identify** the two transactions relating to GST that *do not* involve a cash flow.

6.10 DISCOUNTS

For a business that sells on credit terms, the issue of how to make sure debtors pay either early or on time can be a vexed question. One of the more obvious options is to offer a **settlement discount**, which rewards debtors who pay early by reducing the amount that they are required to pay. The terms of a settlement discount must be stated on the sales invoice, and are usually expressed in the form of '10/7, n/30'. This is translated as:

- 10/7 **10% discount** if the invoice is paid within **7 days**
- n/30 **the net amount** must be paid within **30 days**.

In this example, the customer has **30 days** to pay the **net amount** (balance owing) on the invoice, but if the full amount is paid early – within **7 days** – the customer is entitled to a **discount of 10%** of the invoice amount. This discount amount will **not** have to be paid, but will still be deducted from the amount owing.

The discount rate and the number of days allowed to pay will vary between firms, depending on how quickly they need their cash and the relationships they develop with their customers, but the format for expressing the credit terms is generally fairly consistent.

settlement discount
a reduction in the amount repayable by a credit customer in return for early repayment

STUDY TIP

In credit terms, the **second** and **fourth** numbers tell us **how many days** are available

For a business that sells on credit terms, the issue of how to make sure debtors pay either early or on time can be a vexed question



Benefits

- *Cash is received faster from debtors.* This will allow the business to:
 - pay its debts on time, allowing it to take advantage of any discounts offered by creditors
 - make other payments, such as wages or other expenses.
- *The possibility of bad debts is reduced.* The longer a debt goes unpaid, the more likely it is the debtor will not actually pay at all.
- *Greater sales may be encouraged.* Customers may be more willing to buy from a firm that offers discounts than one that does not, knowing that the amount they end up paying will be less.

Costs

- *Less cash is received from debtors.* Because a discount reduces the amount the debtor has to pay, less cash is received.
- *Net profit is reduced.* The amount of the discount is an expense, and thus reduces net profit.

Of course, if the discount is received from a creditor (rather than given to a debtor), then these costs become benefits. A discount means less cash is paid to creditors and, as the discount is a revenue, profit increases.

Note: A settlement discount does *not* reduce the amount of revenue earned from the sale. Instead, it reduces the cash received from the debtor and, because it is an expense to the seller, also reduces profit.

Calculating the discount

The discount revenue or expense will depend on the credit terms offered, and when the cash is paid/received.

EXAMPLE

During December 2015, Lomax Carpets had the following transactions:

- Dec. 3 Sold carpet on credit to V. Barbarino for \$1 000 plus \$100 GST (Inv. 43)
- 6 Received cash from V. Barbarino in full settlement of debt (Rec. 61)

Lomax Carpets offers credit terms of 7/10, n/30.

Because V. Barbarino has paid within 10 days, he is entitled to a discount of 7%, which would be calculated as is shown in Figure 6.11:

Figure 6.11 Calculating discount expense

$$\begin{aligned} \text{Discount expense} &= \text{Discount rate} \times \text{Amount owing} \\ &= 7\% \times \$1\,100 \\ &= \$77 \end{aligned}$$

The debtor receives a discount on the full balance owing. In this example, Lomax will incur a discount expense of \$77, and therefore receive only \$1 023 in cash from the debtor. However, V. Barbarino's balance will be reduced by the total amount of \$1 100. Any GST effect is simply absorbed by the business offering the discount.

STUDY TIP

GST can be adjusted so that businesses do not have to absorb the GST they do not collect, but this is beyond the scope of this course.

REVIEW QUESTIONS 6.10

- 1 **Define** the term 'settlement discount'.
- 2 **Explain** what is meant by the notation '5/7, n/30'.
- 3 **List** the benefits of offering a settlement discount.
- 4 **List** the costs of offering a settlement discount.

6.11 RECORDING DISCOUNT REVENUE IN THE CASH PAYMENTS JOURNAL

When a creditor is paid early and a discount is *received*, the amount paid to that creditor is reduced. The amount of this reduction is known as **discount revenue**, as it is a reduction in an outflow of economic benefits (less cash is paid to creditors) in the form of a reduction in liabilities (creditors) that increases owner's equity. Figure 6.12 uses the transactions from Figure 6.1, but with the two transactions involving payments to creditors – on 5 June (to Mills Bros) and 24 June (to Johnson Ltd) – adjusted to reflect a discount revenue.

discount revenue
a revenue (in the form of a decrease in creditors) earned when creditors are paid early

EXAMPLE

June	5	Paid Mills Bros \$360 (after discount of \$40)	Ch. 23
	24	Paid amount owing to Johnson Ltd (\$350 less discount \$35)	Ch. 29

STUDY TIP

The cash paid to creditors is the amount in the Creditors column less the Discount Revenue.

STUDY TIP

Due to the discount, the amount recorded in the Creditors Control column should be larger than the amount recorded in the Bank column.

Figure 6.12 Cash Payments Journal (with discount)

Date	Details	Cheque number	Bank	Discount Revenue	Creditors Control	Stock Control	Wages	Sundries	GST
June 1	Stock Control	22	220			200			20
5	Mills Bros	23	360	40	400				
8	Wages	24	190				190		
10	Electricity	25	165					150	15
13	Drawings	26	100					100	
15	Stock Control	27	242			220			22
22	Wages	28	190				190		
24	Johnson Ltd	29	315	35	350				
29	Vehicle	30	13 200					12 000	1 200
	Totals		14 982	75	750	420	380	12 250	1 257

On 5 June, only \$360 has been paid to the creditor, so this amount is recorded in the Bank column. However, the amount owed to the creditor has also been reduced by the \$40 received as a discount. The total reduction in creditors is actually \$400 (\$360 paid plus \$40 discount) and it is this total that must be recorded in the Creditors Control column. The Creditors Control column records the total by which Creditors Control will decrease, with the Bank column recording the amount of actual cash paid.

Effect on the accounting equation

The effect of the payment to Mills Bros on 5 June (where a discount is involved) is:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Bank)	360
Liabilities	Decrease (Creditors Control)	400
Owner's Equity	Increase (Discount Revenue increases profit)	40

Double-checking mechanism

The recording of a discount revenue means that the double-checking mechanism is slightly different, but the basic principle remains the same: the total of the Bank column plus the discount revenue column should equal the sum of the totals of the other (classification and sundries) columns. Using the figures from Figure 6.12, the double-check would show:

	Creditors Control	750	=	Bank	14 982
+	Stock Control	420		+	Discount Revenue
					75
+	Wages	380			
+	Sundries	12 250			
+	GST Clearing	1 257			
	Total debits	\$15 057		Total credits	\$15 057

REVIEW QUESTIONS 6.11

- 1 **Define** the term 'discount revenue'.
- 2 **Explain** why discount revenue is classified as revenue.
- 3 Where a discount is received on a payment to a creditor, **state** the amount that should be recorded in the following columns of the Cash Payments Journal:
 - Bank
 - Creditors Control.
- 4 Referring to Figure 6.12, **state** the effect of the transaction on 24 June 2015 on the accounting equation.

6.12 POSTING THE CASH PAYMENTS JOURNAL (WITH DISCOUNT REVENUE)

Taking into account the discount revenue, the Cash Payments Journal in Figure 6.12 would be posted to the General Ledger using the following entries:

DR	Creditors Control	\$	750		
DR	Stock Control		420		
DR	Wages		380		
DR	Electricity		150		
DR	Drawings		100		
DR	Vehicle		12 000		
DR	GST Clearing		1 257		
CR	Bank			14 982	
CR	Discount Revenue			75	

This time it takes two credits (to **Bank** and **Discount Revenue**) and seven debits to form a matching double-entry. However, this is still far fewer than it would take to enter the transactions directly into the General Ledger.

Figure 6.13 shows how the General Ledger accounts would appear after the Cash Payments Journal had been posted:

Figure 6.13 General Ledger: posting the Cash Payments Journal (with discount)

General Ledger Bank (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 1	Balance	5 000	June 30	Cash Payments	14 982

Discount Revenue (R)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			June 30	Creditors Control	75

Creditors Control (L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 30	Bank/Discount Revenue	750	June 1	Balance	900

STUDY TIP

The Creditors Control account has two entries with a double cross-reference: Bank/Discount Revenue on the debit side, and Stock Control/GST Clearing on the credit side.

Cross-references

Note how the cross-reference in the Creditors Control account now refers to two accounts: **Bank** and **Discount Revenue**. This is because the amount debited to the Creditors Control (\$750) account consists of some cash (\$675) and some discount revenue (\$75).

On the other hand, the cross-reference in the Discount Revenue account refers only to **Creditors Control**. There is no connection between the Bank and Discount Revenue accounts as, by definition, the discount is the amount that has *not* been paid.

The same principle applies in the Creditors Ledger, shown in Figure 6.14.

Figure 6.14 Creditors Ledgers: posting the Cash Payments Journal (with discount)

Creditors Ledger					
Mills Bros (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 5	Bank/Discount Revenue	400	June 1	Balance	500

Johnson Ltd (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 24	Bank/Discount Revenue	350	June 1	Balance	400

REVIEW QUESTIONS 6.12

- Show** the debit and credit entries necessary to post the Cash Payments Journal to the General Ledger when discount revenue is involved.
- Explain** why there are two accounts cross-referenced in the Creditors Control account when a discount revenue is received on a payment to a creditor.

6.13 RECORDING DISCOUNT EXPENSE IN THE CASH RECEIPTS JOURNAL

When cash is received from a debtor who pays early and a discount is granted, the amount received from the debtor is reduced. The amount of this reduction is known as **discount expense**, as it is a reduction in an inflow of economic benefits (less cash is received from debtors) in the form of a reduction in assets (debtors) that decreases owner's equity. Figure 6.15 uses the transactions from Figure 6.4, but with the three transactions involving receipts from debtors – on 8 and 27 June (from G. Matthews) and 14 June (from T. May) – adjusted to reflect the discount terms of 10/7, n/30.

discount expense

an expense, in the form of a decrease in debtors, incurred when cash is received early from debtors

EXAMPLE

June	8	Received \$270 from G. Matthews (discount \$30)	Rec. 13
	14	T. May paid \$180 after \$20 discount	Rec. 15
	27	Receipt of cash from G. Matthews \$90 (\$10 discount granted)	Rec. 18

Figure 6.15 Cash Receipts Journal (with discount)

Cash Receipts Journal									
Date	Details	Receipt number	Bank	Discount Expense	Debtors Control	Cost of Sales	Sales	Sundries	GST
June 1	Cash Sales	11	440			210	400		40
5	Cash Sales	12	550			270	500		50
8	G. Matthews	13	270	30	300				
11	Cash Sales	14	660			330	600		60
14	T. May	15	180	20	200				
19	Capital	16	10 000					10 000	
22	Cash Sales	17	220			120	200		20
27	G. Matthews	18	90	10	100				
	Totals		12 410	60	600	930	1 700	10 000	170

On 8 June, only \$270 has been received from the debtor as cash, so this amount is recorded in the Bank column. However, the amount owed by the debtor has also been reduced by the \$30 granted as a discount. Thus, the total reduction in debtors is \$300 (\$270 received plus \$30 discount) and this is the total that must be recorded in the Debtors Control column. The Debtors Control column records the total by which Debtors Control will decrease, while the Bank column records the amount of actual cash received.

Effect on the accounting equation

The effect of the receipt from G. Matthews on 8 June (where a discount is involved) is:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (increase Bank \$270, decrease Debtors Control \$300)	30
Liabilities	No effect	
Owner's Equity	Decrease (Discount Expense decreases profit)	30

Double-checking mechanism

In a fashion similar to the Cash Payments Journal, the total of the Bank column plus the Discount Expense column should equal the sum of the totals of the other (Classification and Sundries) columns (except the Cost of Sales column, which relates to a stock flow, not a cash flow). Using the figures from Figure 6.15, the double-check would show:

Bank	12 410	=	Debtors Control	600
+ Discount Expense	60		+ Sales	1 700
			+ Sundries	10 000
			+ GST Clearing	170
Total debits	\$12 470		Total credits	\$12 470

STUDY TIP

Due to the discount, the amount recorded in the Debtors Control column should be larger than the amount recorded in the Bank column.

STUDY TIP

The cash received from debtors is the amount in the Debtors Control column less the Discount Expense.

REVIEW QUESTIONS 6.13

- 1 **Define** the term 'discount expense'.
- 2 **Explain** why discount expense is classified as an expense.
- 3 Where a discount is given on a receipt from a debtor, **state** the amount that should be recorded in the following columns of the Cash Receipts Journal:
 - Bank
 - Debtors Control.
- 4 Referring to Figure 6.15, **state** the effect of the transaction on 14 June 2015 on the accounting equation.

6.14 POSTING THE CASH RECEIPTS JOURNAL (WITH DISCOUNT EXPENSE)

Taking into account the discount expense, the Cash Receipts Journal in Figure 6.15 would be posted to the General Ledger using the following entries:

DR	Bank	\$	12 410	
DR	Discount Expense		60	
CR	Debtors Control			600
CR	Sales			1 700
CR	Capital			10 000
CR	GST Clearing			170

and

DR	Cost of Sales	\$	930	
CR	Stock Control			930

This time it takes two debits (to **Bank** and **Discount Expense**) and four credits to form a matching double-entry. Figure 6.16 shows how the General Ledger accounts would appear after the Cash Receipts Journal had been posted:

Figure 6.16 General Ledger: posting the Cash Receipts Journal (with discount)

General Ledger Bank (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 1	Balance	5 000	June 30	Cash Payments	14 982
30	Cash Receipts	12 410			

Discount Expense (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 30	Debtors Control	60			

Debtors Control (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 1	Balance	1 100	June 30	Bank/Discount Expense	600

STUDY TIP

Like Creditors Control, the Debtors Control account has two entries with a double cross-reference: Bank/Discount expense on the credit side, and Sales/GST Clearing on the debit side.

Cross-references

As with cash payments involving a discount revenue, a cash receipt from a debtor that also involves a discount expense is posted to the Debtors Control account using one figure: the total of the Debtors Control column from the Cash Receipts Journal (\$600). But this figure includes some cash received (in the preceding example, \$540) plus some discount expense (\$60), so the cross-reference must refer to both **Bank** and **Discount Expense**.

On the other hand, the cross-reference in the Discount Expense account refers only to **Debtors Control**, as the discount is the amount not received.

The same principle applies in the Debtors Ledger, which is shown in Figure 6.17.

Figure 6.17 Debtors Ledger: posting the Cash Receipts Journal (with discount)

Debtors Ledger

G. Matthews (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 1	Balance	800	June 8	Bank/Discount Expense	300
			27	Bank/Discount Expense	100

T. May (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 1	Balance	300	June 14	Bank/Discount Expense	200

REVIEW QUESTIONS 6.14

- Show** the debit and credit entries necessary to post the Cash Receipts Journal to the General Ledger when a discount expense is involved.
- State** one reason why the amount posted to the Debtors Control account from the Cash Receipts Journal is not the same as the cash received from debtors.
- Explain** why two accounts are cross-referenced in the Debtors Control account when a discount expense is incurred on a receipt from a debtor.

WHERE HAVE WE BEEN?

- Special journals summarise similar transactions, allowing totals to be posted to the General Ledger accounts using fewer debit and credit entries.
- All cash paid is recorded in the Cash Payments Journal; all cash payments result in a credit to the Bank account.
- All cash received is recorded in the Cash Receipts Journal; all cash receipts result in a debit to the Bank account.
- Frequent cash transactions are given their own column in the cash journal; infrequent cash transactions are recorded in the Sundries column.
- Journals are posted to the General Ledger at the end of the month, using the column totals. Individual transactions are posted to the subsidiary ledger accounts on the day they occur.
- The Bank account is one of only two ledger accounts in which the cross-references are not the names of other ledger accounts. (On the debit side *Cash Receipts* and on the credit side *Cash Payments*.)
- Settlement discounts encourage credit customers to pay early by reducing the amount payable. Discounts offered by suppliers/creditors are known as discount revenues; discounts offered to customers/debtors are known as discount expenses.
- In the Cash Payments Journal, the Creditors Control column shows the total amount by which creditors will decrease: the cash paid to the creditor *plus* the discount revenue.
- In the Cash Receipts Journal, the Debtors Control column shows the total amount by which debtors will decrease: the cash received from the debtor *plus* the discount expense.

Transaction	Document	Journal	General Ledger	Subsidiary ledger
Credit purchases of stock	Purchase invoice	Purchases Journal	DR Stock Control DR GST Clearing CR Creditors Control	CR Individual creditors' accounts
Credit sales of stock	Sales invoice	Sales Journal	DR Debtors Control CR Sales CR GST Clearing and DR. Cost of Sales (CP) CR Stock Control (CP)	DR. Individual debtors' accounts
Cash paid	Cheque butt	Cash Payments Journal	DR All Uses of Cash CR Bank CR Discount Revenue	DR Individual creditors' accounts
Cash received	Cash receipt	Cash Receipts Journal	DR Bank DR. Discount Expense CR All Sources of Cash and DR Cost of Sales (CP) CR Stock Control (CP)	CR Individual debtors' accounts



EXERCISE 6.1

RECORDING IN THE CASH PAYMENTS JOURNAL



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EXERCISES

Gabby is the owner of Gabby's Computers, which had the following balances in its ledger accounts as at 1 March 2015:

Bank	\$ 1 500	
GST Clearing	800	CR
Stock Control	1 000	
Creditors Control	3 630	
– Mother Boards	2 200	
– Acep Parts	1 430	

Gabby provided the following list of transactions for March 2015:

March	1	Paid wages of assistant – \$750 (Ch. 176)
	5	Purchase of stock for \$1 650 including \$150 GST (Ch. 177)
	8	Paid creditor – Mother Boards \$2 000 (Ch. 178)
	12	Paid \$400 for electricity plus GST of \$40 (Ch. 179)
	15	Paid wages of assistant – \$750 (Ch. 180)
	23	Purchase of stock for \$1700 plus GST (Ch. 181)
	29	Gabby withdrew \$700 cash for personal use (Ch. 182)
	30	Paid Acep Parts \$500 off amount owing (Ch. 183)

Required

- a **Explain** one benefit of recording transactions in special journals.
- * b **Record** the transactions for March 2015 in the Cash Payments Journal of Gabby's Computers. **Total** the journal.
- c **Show** the debits and credits necessary to post the Cash Payments Journal to the General Ledger of Gabby's Computers.
- d **Post** the Cash Payments Journal to the General Ledger of Gabbys Computers.
- e **Post** the Cash Payments Journal to the Creditors Ledger of Gabbys Computers.
- f **Explain** how the headings of the classification columns in the Cash Payments Journal are determined.

EXERCISE 6.2

POSTING THE CASH PAYMENTS JOURNAL



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Alex McKinnon owns Manchester Union, a business selling sheets and other manchester. The business had the following balances in its ledger accounts as at 1 January 2015:

Bank	\$ 5 000	
GST Clearing	650	CR
Stock Control	1 000	
Creditors Control	3 520	
– Irish Linen	2 420	
– Sherman Sheets	1 100	
Shelving	29 000	

Alex has provided the following journals for January 2015:

Cash Payments Journal

Date	Details	Cheque number	Bank	Creditors Control	Wages	Drawings	Sundries	GST
Jan. 1	Drawings	501	800			800		
5	Sherman Sheets	502	1 100	1 100				
7	Shelving	503	3 960				3 600	360
9	Irish Linen	504	700	700				
13	Wages	505	500		500			
18	Irish Linen	506	600	600				
24	Advertising	507	440				400	40
27	Wages	508	500		500			
	Totals		8 600	2 400	1 000	800	4 000	400

Purchases Journal

Date	Creditor	Invoice number	Stock Control	GST	Creditors Control
Jan. 6	Sherman Sheets	158	2 400	240	2 640
12	Irish Linen	A206	2 300	230	2 530
23	Sherman Sheets	163	3 000	300	3 300
	Totals		7 700	770	8 470

Required

- a **Explain** why the Cash Payments Journal has a Sundries column, but the Purchases Journal does not.
- b **Post** the journals to the General Ledger and Creditors Ledger of Manchester Union.
- c **Explain** the effect of GST paid on the balance of the GST Clearing account.
- * d **Balance** the Creditors Control account as at 31 January 2015.
- * e **Foot** the accounts in the Creditors Ledger and **prepare** a Creditors Schedule as at 31 January 2015.
- f **State** two benefits of using a system of control accounts and subsidiary ledgers.

EXERCISE 6.3

RECORDING IN THE CASH RECEIPTS JOURNAL

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Gary Pecks is the owner of Gary's Gym Equipment, which had the following balances in its ledger accounts as at 1 May 2015:

Bank	\$ 900	CR
GST Clearing	350	CR
Stock Control	4 600	
Debtors Control	2 990	
– Braun Co.	1 650	
– Power Station	1 340	

Gary provided the following list of transactions for May 2015:

May	3	Cash sales of \$3 000 (cost price \$2 000) plus \$300 GST (Rec. 207)
	5	Received balance owing from debtor – Braun Co. (Rec. 208)
	9	Cash sales \$1 980, including \$180 GST; cost price \$1 200 (Rec. 209)
	15	Bank statement indicated \$15 interest received (BS)
	24	Received \$500 owing from Power Station (Rec. 210)
	28	Cash sales \$2 400 plus GST (Rec. 211)

Required

- a **Explain** why the interest received on 15 May 2015 shows 'BS' instead of a receipt number.
- * b **Record** the transactions for May 2015 in the Cash Receipts Journal of Gary's Gym Equipment. **Total** the journal.
- c **Show** the debit and credit entries required to post the Cash Receipts Journal to the General Ledger of Gary's Gym Equipment.
- d **Post** the Cash Receipts Journal to the General Ledger of Gary's Gym Equipment.
- e **Post** the Cash Receipts Journal to the Debtors Ledger of Gary's Gym Equipment.

EXERCISE 6.4

POSTING THE CASH RECEIPTS JOURNAL



Melanie Wong is the owner of Central Suppliers, which is responsible for supplying toiletries to a number of small hotels. As at 1 September 2015, the business had the following balances in its ledger accounts:

Bank	\$ 1 600	
GST Clearing	150	CR
Capital	40 000	
Stock Control	12 100	
Debtors Control	3 500	
– Wincup Hotels	2 000	
– Lloyds Inns	1 500	

Melanie has provided the following journals for September 2015:

Cash Receipts Journal

Date	Details	Receipt number	Bank	Debtors Control	Cost of Sales	Sales	Sundries	GST
Sept. 3	Wincup Hotels	71	500	500				
5	Cash Sales	72	660		400	600		60
10	Lloyds Inns	73	2 000	2 000				
20	Capital	74	500				500	
22	Cash Sales	75	990		600	900		90
25	Lloyds Inns	76	3 000	3 000				
29	Cash Sales	77	1 320		800	1 200		120
	Totals		8 970	5 500	1 800	2 700	500	270

Sales Journal

Date	Debtor	Invoice number	Cost of Sales	Sales	GST	Debtors Control
Sept. 2	Lloyds Inns	36	1 500	2 250	225	2 475
9	Wincup Hotels	37	1 800	2 700	270	2 970
16	Both Worlds Hotel	38	900	1 350	135	1 485
23	Lloyds Inns	39	1 200	1 800	180	1 980
	Totals		5 400	8 100	810	8 910

Required

- a **Explain** the double-checking mechanism contained in the Cash Receipts Journal.
- b **Post** the Cash Receipts Journal and Sales Journal to the General Ledger and Debtors Ledger of Central Suppliers.
- c **Explain** the effect of GST received on the balance of the GST Clearing account.
- * d **Balance** the Debtors Control account as at 30 September 2015.
- * e **Foot** the accounts in the Debtors Ledger and **prepare** a Debtors Schedule as at 30 September 2015.
- f **Explain** how using a system of control accounts and subsidiary ledgers assists in the preparation of reports.

EXERCISE 6.5

GST CLEARING ACCOUNT



page 98

The following is a summary of GST transactions recorded in the journals of Tony's Towels for July 2015:

Cash Receipts Journal:	GST received on cash sales	\$ 640
Cash Payments Journal:	GST settlement	1 620
	GST paid on other cash payments	380
Sales Journal:	GST on credit sales	920
Purchases Journal:	GST on credit purchases	630

As at 1 July 2015, the GST Clearing account had a balance of \$1 620 CR.

Required

- a **Explain** why the GST settlement is **not** recorded in the GST column of the Cash Payments Journal.
- b **Show** the effect of the GST settlement on the accounting equation of Tony's Towels.
- * c **Prepare** the GST Clearing account in the General Ledger after all journals have been posted. **Balance** the account at 31 July 2015.
- d **Explain** how the GST Clearing account would be reported in the Balance Sheet of Tony's Towels as at 31 July 2015.
- e **Explain** why it is more likely that a business will end up with a credit balance in its GST Clearing account.



EXERCISE 6.6

GST CLEARING ACCOUNT

 page 99

The following is a summary of GST transactions recorded in the journals of Concept Paper Sales for October 2015:

Cash Receipts Journal:	GST received on cash sales	\$ 800
	GST refund	200
Cash Payments Journal:	GST paid on other cash payments	420
Sales Journal:	GST charged to debtors	650
Purchases Journal:	GST charged by creditors	370

As at 30 September 2015, the GST Clearing account had a balance of \$200 DR.

Required

- Explain** how the GST Clearing account would be reported in the Balance Sheet of Concept Paper Sales as at 30 September 2015.
- Suggest** one reason why Concept Paper Sales had more GST on its purchases than GST on its sales in the quarter ending 30 September 2015.
- Show** how the GST refund would have been recorded in the Cash Receipts Journal of Concept Paper Sales.
- Explain** the effect of the GST refund on the Balance Sheet of Concept Paper Sales.
- * **Prepare** the GST Clearing account after all journals have been posted. **Balance** the account at 31 October 2015.

EXERCISE 6.7

RECORDING IN THE CASH PAYMENTS JOURNAL (DISCOUNTS)

 page 100

Diana Adams is the owner of Diana's Jewellery, which had the following balances in its ledger accounts as at 1 February 2015:

Bank	\$ 12 900	
GST Clearing	1 700	CR
Stock Control	74 500	
Creditors Control	15 950	
– Beads and Stones	8 800	
– Carter Diamonds	7 150	

The Purchases Journal for February 2015 showed the following:

Purchases Journal

Date	Creditor	Invoice number	Stock Control	GST	Creditors Control
Feb. 4	Precious Inc.	1702	5 100	510	5 610
9	Beads and Stones	65	4 000	400	4 400
17	Carter Diamonds	c311	6 000	600	6 600
22	Beads and Stones	78	7 200	720	7 920
28	Carter Diamonds	c346	4 200	420	4 620
	Totals		26 500	2 650	29 150

Diana has provided the following list of cash payments for February 2015:

Feb.	1	Paid GST owing to ATO \$1 700
	3	Paid Beads and Stones balance outstanding from January, less 5% discount
	4	Cash purchase of additional display cabinets for \$16 500 including GST
	7	Paid Carter Diamonds full amount owing
	10	Paid for rent for Feb. – July 2015: \$2 400 plus GST
	14	Paid wages \$1 200
	15	Paid Beads and Stones for Inv. 65 (after 5% discount on invoice price)
	20	Paid electricity bill of \$110 including GST
	23	Paid Carter Diamonds \$6 072 for Inv. C311 after receiving 8% discount
	24	Cash drawings \$1 000
	27	Paid wages \$1 250

The last cheque written in January 2015 was cheque number 200.

Required

- * **a Record** the transactions for February 2015 in the Cash Payments Journal of Diana's Jewellery.
- b Post** the journals to the General Ledger of Diana's Jewellery.
- c Post** the journals to the Creditors Ledger of Diana's Jewellery.
- * **d Balance** the Creditors Control account as at 28 February 2015.
- * **e Foot** the accounts in the Creditors Ledger and **prepare** a Creditors Schedule as at 28 February 2015.
- f State** the effect of the cash payment on 3 February 2015 on the accounting equation of Diana's Jewellery.

EXERCISE 6.8

POSTING THE CASH PAYMENTS JOURNAL (DISCOUNTS)

 page 104

Peter Ohm owns and operates a small trading business called Shock Electrics. On 1 June 2015, the business had the following balances in its ledger accounts:

Bank	\$ 2 075	
GST Clearing	300	CR
Stock Control	10 600	
Creditors Control	25 500	
– Sparkwell	5 700	
– Electron	15 000	
– General PC	4 800	

The journals for June 2015 showed the following:

Cash Payments Journal

Date	Details	Cheque number	Bank	Discount Revenue	Creditors Control	Wages	Sundries	GST
June 1	Sparkwell	233	5 244	456	5 700			
3	Drawings	234	900				900	
6	General PC	235	4 560	240	4 800			
7	Wages	236	2 000			2 000		
10	Advertising	237	1 100				1 000	100
14	Sparkwell	238	6 072	528	6 600			
21	Wages	239	2 650			2 650		
29	Electron	240	7 000		7 000			
	Totals		29 526	1 224	24 100	4 650	1 900	100

Purchases Journal

Date	Creditor	Invoice number	Stock Control	GST	Creditors Control
June 4	Electron	158	2 400	240	2 640
12	Sparkwell	A206	6 000	600	6 600
23	General PC	48c	3 000	300	3 300
	Totals		11 400	1 140	12 540

Required

- a **Calculate** the percentage discount offered by Sparkwell.
- b **Post** the journals to the General Ledger and Creditors Ledger of Shock Electrics.
- * c **Balance** the Creditors Control account as at 30 June 2015.
- * d **Foot** the accounts in the Creditors Ledger and **prepare** a Creditors Schedule as at 30 June 2015.
- e **Explain** why the discount received from creditors is classified as revenue.
- f **Explain** one control procedure Shock Electrics should use to detect errors in the Creditors Ledger.

EXERCISE 6.9

RECORDING IN THE CASH RECEIPTS JOURNAL (DISCOUNTS)

 page 107

Sports Bonanza is owned by Joe Little, and on 1 December 2015, the business had the following balances in its ledger accounts:

Bank	\$ 500	CR
Capital	30 000	
Stock Control	14 000	
Debtors Control	2 420	
– Emerald CC	1 320	
– St Carls PS	1 100	
GST Clearing	70	DR

The Sales Journal for December 2015 showed the following:

Sales Journal

Date	Debtor	Invoice number	Cost of Sales	Sales	GST	Debtors Control
Dec. 7	St Carls PS	904	800	1 300	130	1 430
15	Emerald CC	905	450	750	75	825
19	East Bunbury SC	906	700	1 000	100	1 100
22	St Carls PS	907	550	900	90	990
	Totals		2 500	3 950	395	4 345

Joe has provided the following list of transactions for December 2015:

- Dec. 1 Cash sales \$132 including GST (cost price \$95)
- 3 Received amount outstanding from Emerald CC, after discount of 10%
- 6 Received GST refund from ATO \$70
- 9 Received \$1 100 from debtor – St Carls PS
- 10 Goods with a cost price of \$120 sold for \$200 plus GST
- 13 Received \$1 287 from St Carls PS; 10% discount given on Inv. 904
- 18 Cash sales of \$400 plus GST (cost price \$290)
- 21 Joe Little contributed \$5 000 cash
- 24 East Bunbury SC paid for Inv. 906; 10% discount on invoice price

The last receipt issued in November was no. 33.

Required

- * **a Record** the transactions for December 2015 in the Cash Receipts Journal of Sports Bonanza.
- b Post** the journals to the General Ledger of Sports Bonanza.
- c Post** the journals to the Debtors Ledger of Sports Bonanza.
- * **d Balance** the debtors control account as at 31 December 2015.
- * **e Foot** the accounts in the Debtors Ledger and **prepare** a Debtors Schedule as at 31 December 2015.
- f State** two benefits of offering discounts to debtors.
- g Explain** why no GST is attached to the transaction on 3 December 2015.
- h State** the effect of the transaction on 3 December 2015 on the accounting equation of Sports Bonanza.

EXERCISE 6.10 POSTING THE CASH RECEIPTS JOURNAL (DISCOUNTS)

 page 111

Max Powers operates a lamp shop called Mojo Ltd, which specialises in the sale of lava lamps. On 1 April 2015, its ledger accounts showed the following balances:

GST Clearing	\$ 190	CR
Stock Control	11 300	
Debtors Control	3 300	
– Far Out Lights	1 100	
– Liquid Lamps	2 200	
Bank	2 650	DR
Capital	23 000	

The journals for April 2015 showed the following:

Cash Receipts Journal

Date	Details	Receipt number	Bank	Discount Expense	Debtors Control	Cost of Sales	Sales	Sundries	GST
April 1	Far Out Lights	771	1 050	50	1 100				
5	Cash Sales	772	660			300	600		60
8	Cash Sales	773	495			225	450		45
10	Liquid Lamps	774	2 100	100	2 200				
17	Far Out Lights	775	1 680	80	1 760				
20	Capital contribution	776	500					500	
22	Cash Sales	777	935			425	850		85
25	Liquid Lamps	778	3 150	150	3 300				
29	Cash Sales	779	1 320			600	1 200		120
	Totals		11 890	380	8 360	1 550	3 100	500	310

Sales Journal

Date	Debtor	Invoice number	Cost of Sales	Sales	GST	Debtors Control
April 4	Far Out Lights	63	800	1 600	160	1 760
8	Liquid Lamps	64	1 000	2 000	200	2 200
15	Liquid Lamps	65	1 500	3 000	300	3 300
21	Far Out Lights	66	700	1 400	140	1 540
28	Liquid Lamps	67	900	1 800	180	1 980
	Totals		4 900	9 800	980	10 780

Required

- a **State** one reason why the total of the Debtors Control column does *not* represent the cash received from debtors during April 2015.
- b **Post** the journals to the General Ledger and a Debtors Ledger of Mojo Ltd.
- * c **Balance** the Debtors Control account as at 30 April 2015.
- * d **Foot** the accounts in the Debtors Ledger and **prepare** a Debtors Schedule as at 30 April 2015.
- e **Explain** why the discount granted to debtors is classified as an expense.

EXERCISE 6.11

 page 114

POSTING SPECIAL JOURNALS

Kit Reid is the owner of Book Worms, a shop that sells rare and antique books. Its Trial Balance as at 1 July 2015 showed the following:

Account	Debit	Credit
Bank	800	
Debtors Control	7 000	
Stock Control	3 100	
Shop Fittings	23 000	
Premises	190 000	
GST Clearing		610
Creditors Control		9 000
Loan – VicFin		150 000
Capital – Reid		64 290
Total	\$223 900	\$223 900

The journals for July 2015 showed the following:

Cash Receipts Journal

Date	Details	Receipt number	Bank	Discount Expense	Debtors Control	Cost of Sales	Sales	Sundries	GST
	Capital Contribution							1 000	
	Totals		9 900	500	5 000	2 000	4 000	1 000	400

Cash Payments Journal

Date	Details	Cheque number	Bank	Discount Revenue	Creditors Control	Stock Control	Wages	Sundries	GST
	Loan – VicFin							500	
	Interest Expense							750	
	GST Clearing							610	
	Drawings							1 000	
	Totals		15 280	900	5 500	1 200	6 500	2 860	120

Sales Journal

Date	Debtor	Invoice number	Cost of Sales	Sales	GST	Debtors Control
	Totals		5 000	8 000	800	8 800

Purchases Journal

Date	Creditor	Invoice number	Stock Control	GST	Creditors Control
	Totals		5 200	520	5 720

Required

- a **Post** the journals to the General Ledger of Book Worms.
- * b **Balance** the Bank and GST Clearing accounts as at 31 July 2015.
- * c **Foot** the other ledger accounts and **prepare** a Trial Balance for Book Worms as at 31 July 2015.
- d **Explain** how the GST clearing account would be reported in the Balance Sheet of Book Worms as at 31 July 2015.
- e Kit has argued that because his capital contribution and drawings were both \$1 000, his capital figure will not change. **Explain** one reason why Kit is incorrect.

EXERCISE 6.12

POSTING SPECIAL JOURNALS

 page 118

Maddy Mercurio owns and operates a small trading business called Greenday Plants selling plants and garden ornaments. On 1 August 2015, the business had the following balances in its ledger accounts:

Bank	\$ 1 700	
GST Clearing	640	CR
Stock Control	5 900	
Creditors Control	5 500	
– Kris and Marnie's	2 200	
– Wombat Plants	3 300	
Debtors Control	2 860	
– Glen Golf Club	2 200	
– City of Yarra	660	
Capital	18 000	
Shelving	30 000	

The journals for August 2015 showed the following:

Cash Receipts Journal

Date	Details	Rec. no.	Bank	Discount Expense	Debtors Control	Cost of Sales	Sales	Sundries	GST
Aug. 3	City of Yarra	51	600	60	660				
5	Cash Sales	52	880			400	800		80
	Glen Golf Club	53	2 100	100	2 200				
20	Capital	54	2 000					2 000	
22	Cash Sales	55	1 100			500	1 000		100
	Glen Golf Club	56	1 050	50	1 100				
29	Cash Sales	57	1 650			750	1 500		150
	Totals		9 380	210	3 960	1 650	3 300	2 000	330

Cash Payments Journal

Date	Details	Chq. no.	Bank	Discount Revenue	Creditors Control	Selling Expenses	Shelving	Sundries	GST
Aug. 1	GST Clearing	900	640					640	
2	Drawings	901	1 000					1 000	
5	Wages	902	500			500			
9	Kris and Marnie's	903	2 100	100	2 200				
13	Interest	904	100					100	
17	New Shelving	905	1 760				1 600		160
21	Advertising	906	440			400			40
25	Wombat Plants	907	3 300		3 300				
	Totals		9 840	100	5 500	900	1 600	1 740	200

Sales Journal

Date	Debtor	Invoice number	Cost of Sales	Sales	GST	Debtors Control
Aug. 4	City of Yarra	14	1 000	2 000	200	2 200
8	Glen Golf Club	15	500	1 000	100	1 100
15	Glen Golf Club	16	2 000	4 000	400	4 400
21	City of Yarra	17	800	1 600	160	1 760
28	Glen Golf Club	18	1 400	2 800	280	3 080
	Totals		5 700	11 400	1 140	12 540

Purchases Journal

Date	Creditor	Invoice number	Stock Control	GST	Creditors Control
Aug. 5	Wombat Plants	W12	1 000	100	1 100
12	Kris and Marnie's	34	1 500	150	1 650
19	Wombat Plants	W29	1 300	130	1 430
26	Kris and Marnie's	40	2 000	200	2 200
	Totals		5 800	580	6 380

Required

- a **Explain** how recording transactions in special journals increases the efficiency of the accounting system.
- b **State** two weaknesses in the way Maddy records cash payments.
- c Using the information as it is provided, **post** the journals to the General Ledger and subsidiary ledgers of Greenday Plants.
- * d **Balance** the Debtors Control and Creditors Control accounts as at 31 August 2015.
- e **Explain** the role of a Debtors Schedule.
- * f **Foot** the subsidiary ledgers and **prepare** a Debtors Schedule and a Creditors Schedule as at 31 August 2015.

7.1 THE NEED FOR THE GENERAL JOURNAL

The great beauty of recording in special journals is that it allows us to summarise similar transactions, and then post only the totals to the General Ledger at the end of the month, reducing the number of ledger entries required.

For instance, the Purchases Journal records all transactions involving the purchase of stock on credit, and the double entry for each of these transactions is exactly the same.

DR	Stock Control
DR	GST Clearing
CR	Creditors Control
CR	(Each individual account in the Creditors Ledger)

The same principle applies to the Sales Journal, where each credit sale results in exactly the same entries. Even in the Cash Receipts Journal and the Cash Payments Journal, where a variety of cash transactions are recorded, all the transactions have something in common by virtue of requiring either a debit (for receipts) or credit (for payments) to Bank.

There will, however, be some transactions that cannot be recorded in these special journals because they do not involve cash, and do not involve the purchase or sale of stock. For instance, what happens if the owner contributes her own vehicle for business purposes? This transaction is neither receipt nor payment, nor sale nor purchase.

Transactions like this must still be recorded in a journal before they can be posted to the ledger, but they cannot be recorded in the special journals used so far. At the same time, because they are infrequent they do not justify their own special journal as there would be only one entry to summarise.

Instead, they are recorded in a more general journal called, unsurprisingly, the **General Journal**. This General Journal is used to record infrequent, non-cash transactions, which cannot be recorded in any of the special journals.

Uses of the General Journal

The main types of transactions that will be recorded in the General Journal are:

- commencing entries
- non-cash transactions with the owner
- bad debts
- correcting entries
- use of stock for advertising purposes (covered in Chapter 8)
- closing entries (covered in Chapter 9)
- balance day adjustments (covered in Chapters 10 and 11).

General Journal

an accounting record used to record infrequent, non-cash transactions, which cannot be recorded in the special journals

STUDY TIP

If a transaction involves cash, it is recorded in either the Cash Receipts Journal or the Cash Payments Journal, whether or not it is infrequent.

REVIEW QUESTIONS 7.1

- 1 **Explain** the role of special journals in the accounting process.
- 2 **Explain** the role of the General Journal.
- 3 **List** seven types of transactions that will be recorded in the General Journal.

7.2 FORMAT OF THE GENERAL JOURNAL

Because the General Journal is used to record a variety of transactions, it must have a fairly simple format. As a result, it has columns for date and details just like a special journal, but no classification columns; it simply has a debit column and a credit column to record amounts. This probably makes it easier to record in the General Journal than

in the special journals, and easier to post the General Journal to the ledger. The basic format of the General Journal is shown in Figure 7.1.

Figure 7.1 Format of the General Journal

Date	Details	General Ledger		Subsidiary Ledger	
		Debit	Credit	Debit	Credit

The most obvious and immediate thing to notice is how closely the General Journal resembles the analysing charts we used when learning the ledger process (in Chapter 2). Basically, transactions are recorded in date order (as they occur), with the Details column used to record the name of each ledger account affected by the transaction. Then the amount is simply recorded in the debit or credit column as is necessary.

The key thing to remember about the debit and credit columns in the General Journal is that, like all transactions, the debits must equal the credits. If the transaction does not balance in the General Journal, it cannot balance when it is posted to the ledger accounts.

Transactions affecting General Ledger accounts are recorded in the debit and credit columns under the heading 'General Ledger'. The debit and credit columns under the 'subsidiary ledger' heading are only used when a subsidiary debtor or creditor account is affected. (This will be covered in more detail later in this chapter.)

Narrations

When transactions are recorded in special journals, there is no need to provide a written description of what has occurred because not only are all of a similar nature, but also they are described by the title of the journal in which they are recorded. For instance, the Sales Journal records credit sales, and the Cash Receipts Journal records cash receipts.

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

narration

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

REVIEW QUESTIONS 7.2

- 1 Explain** why there are no classification columns in the General Journal.
- 2 Explain** how the rules of double-entry accounting apply to the General Journal.
- In relation to the General Journal, **define** the term 'narration'.
- 4 Explain** why narrations are necessary in the General Journal, but not in the special journals.

7.3 COMMENCING ENTRIES

The first time the General Journal is likely to be used is when the double-entry recording system is established. This is known variously as an establishing, opening or **commencing entry**. The purpose of a commencing entry is to open or establish ledger accounts for any existing asset, liability and owner's equity items. This may be when the business is just starting and the owner is contributing starting capital, or when the business has been operating for some time already, and the owner decides to switch from single-entry accounting to double-entry records.

commencing entry

a General Journal entry to establish double-entry records by entering existing asset, liability and owner's equity balances in the ledger account

EXAMPLE

G. Petto is the owner of Toy Bonanza, a toyshop that has been running for three years using a single-entry recording system. On 1 July 2015, he decided to adopt a double-entry recording system (Memo 1). The assets and liabilities of the business at 1 July 2015 were:

Assets	\$	Liabilities	\$
Bank	1 400	Loan GQC Finance	15 600
Stock Control	37 000	GST Clearing	300
Vehicle	22 000		

The General Journal entry to record the commencement of double-entry records is shown in Figure 7.2.

Figure 7.2 General Journal: simple commencing entry

General Journal

Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
July 1	Bank	1 400			
	Stock Control	37 000			
	Vehicle	22 000			
	Loan GQC Finance		15 600		
	GST Clearing		300		
	Capital – G. Petto		44 500		
	Commencement of double-entry records (Memo 1)				

STUDY TIP

Use the accounting equation (assets = liabilities + owner's equity) to calculate the capital figure

By convention, the debit entries are recorded first, followed by the credit entries, with the accounts to be credited indented slightly.

The three asset accounts – **Bank**, **Stock Control** and **Vehicle** – require a debit balance, while the liability accounts – **Loan GQC Finance** and **GST Clearing** – require a credit balance. But on their own, these five entries do not comprise a complete entry, because the debit entries (\$60 400) do not match the credit entries (\$15 900); a further credit (of \$44 500) is required. This balancing amount becomes the owner's **Capital**.

As noted previously, the narration provides a brief description of the transaction, which in this case is the **Commencement of double-entry records**. It also identifies the source document that verifies the transaction: **Memo 1**.

This General Journal entry would be posted to the General Ledger accounts as shown opposite.

**General Ledger
Bank (A)**

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	1 400			

Stock Control (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	37 000			

Vehicle (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	22 000			

Loan GQC Finance (L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 1	Balance	15 600

GST Clearing (A/L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 1	Balance	300

Capital – G. Petto (OE)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 1	Balance	44 500

Commencing entries and subsidiary ledger accounts

The basic principles of opening entries apply to all types of businesses, but for businesses using control accounts for creditors and debtors, a little more information is required. The balances of all existing asset, liability and owner's equity accounts must still be entered in the *General Ledger*, but all individual debtor and creditor balances must also be entered in the *subsidiary ledger accounts*, and this must be recorded in the commencing entry in the *General Journal*.

EXAMPLE

On 1 August 2015, Harry Norman decided to establish a double-entry recording system for his business, Couch World (Memo 1). The firm already had the following assets and liabilities:

Assets	\$	Liabilities	\$
Bank	4 200	Creditors	
Stock Control	54 000	– Pine Products	1 300
Debtors		– Suede Effects	4 100
– A. Smietenko	2 300	– Steel Frame Co.	2 900
– S. Grant	3 500	Loan – Bank of Cicely	40 000
Shop Fittings	32 000	GST Clearing	500

The General Journal entry to record the commencement of the double-entry records is shown in Figure 7.3.

Figure 7.3 General Journal: opening entry (including subsidiary ledger accounts)

General Journal					
Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Aug. 1	Bank	4 200			
	Stock Control	54 000			
	Debtors Control	5 800			
	Debtor – A. Smietenko			2 300	
	Debtor – S. Grant			3 500	
	Shop fittings	32 000			
	Creditors Control		8 300		
	Creditor – Pine Products				1 300
	Creditor – Suede Effects				4 100
	Creditor – Steel Frame Co.				2 900
	Loan – Bank of Cicely		40 000		
	GST Clearing		500		
	Capital – Norman		47 200		
	Commencement of double-entry records (Memo 1)				

Note how the double-entry process is preserved in the General Ledger columns (and thus in the General Ledger accounts) with the total debits matching the total credits. The total amount owed by debtors (\$5 800) is recorded as the opening balance in the Debtors Control account, and the total amount owed to creditors (\$8 300) is recorded as the opening balance in the Creditors Control account. In addition, the accounting equation has been used to determine the amount of Capital (\$47 200).

However, in the subsidiary ledgers, the double-entry process is suspended; only the entry that affects the individual debtor or creditor is recorded. Thus, the entries in the subsidiary ledger columns of the General Journal do not have to be a matching double entry. The opening balances owed by the two individual debtors – A. Smietenko \$2 300 and S. Grant \$3 500 – are entered under the subsidiary ledger heading on the debit side, just as they would appear in the Debtors Ledger, while the amounts owed by the three creditors – Pine Products \$1 300, Suede Effects \$4 100 and Steel Frame Co. \$2 900 – are entered on the credit side, just as they would appear in the Creditors Ledger.

The Debtors Control account would appear in the General Ledger as:

General Ledger					
Debtors Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 1	Balance	5 800			

The individual debtor accounts would appear in the Debtors Ledger as:

Debtors Ledger

A. Smietenko (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 1	Balance	2 300			

S. Grant (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 1	Balance	3 500			

Similarly, the Creditors Control account would appear in the General Ledger as:

General Ledger

Creditors' Control (L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Aug. 1	Balance	8 300

The individual creditor accounts would appear in the Creditors Ledger as shown:

Creditors Ledger

Pine Products (L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Aug. 1	Balance	1 300

Suede Effects (L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Aug. 1	Balance	4 100

Steel Frame Co. (L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Aug. 1	Balance	2 900

REVIEW QUESTIONS 7.3

- 1 **Define** the term 'commencing entry'.
- 2 **State** two reasons why a commencing entry may be necessary.
- 3 In reference to a commencing entry, **explain** how the entry to the Capital account is determined.

7.4 NON-CASH TRANSACTIONS WITH THE OWNER

Because the owner and business are assumed to be separate entities, transactions between the two must be recorded in the firm's accounting records. Cash drawings will be recorded in the Cash Payments Journal and capital contributions of cash will be recorded in the Cash Receipts Journal, but drawings or capital contributions of other *non-cash* items (such as stock or equipment) will need to be recorded in the General Journal.

Drawings of stock

EXAMPLE

On 16 July 2015, the owner withdrew \$300 worth of stock (Memo 13).

This transaction would be recorded in the journal as shown in Figure 7.4.

Figure 7.4 General Journal: non-cash drawings

General Journal					
Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
July 16	Drawings	300			
	Stock Control		300		
	Owner withdrew stock for personal use (Memo 13)				

Ideally, a narration for drawings of this type would not just refer to 'stock', but rather would name the stock item (and/or its stock code) and the quantity withdrawn. However, as this information is unavailable in this example, a more general description will suffice.

This entry would be posted to the General Ledger accounts as shown below.

General Ledger					
Drawings (– OE)					
Date	Cross-reference	Amount	Date	Cross-reference	Amount
July 31	Stock Control	300			

Stock Control (A)					
Date	Cross-reference	Amount	Date	Cross-reference	Amount
July 1	Balance	32 000	July 31	Drawings	300

STUDY TIP

The only dates you should see in the General Ledger are the start and the end of the month.

The transaction was recorded in the General Journal on 16 July 2015, the day it occurred, but is not posted to the General Ledger until 31 July 2015, which is the end of the month. Although there are no totals to post, even the General Journal is posted to the General Ledger only at the end of the month.

The General Journal is posted to the General Ledger at the end of the month.

Non-cash capital contributions

Whereas assets withdrawn by the owner are debited to a separate Drawings account, assets that are contributed by the owner are credited straight to the Capital account.

EXAMPLE

On 23 July 2015, the owner contributed to the business her own vehicle, which had an agreed value of \$23 000 (Memo 16).

Remember that although the business and the owner are separate *accounting entities*, they are, in fact, the same person, so there can be no actual 'sale' of this vehicle by the owner to the business. As a result, the value of the asset cannot be identified by reference to a sales invoice or receipt. At the same time, the asset must be valued at the time it is acquired by the business, so its agreed value (of \$23 000) is used, and verified by the Memo 16. This agreed value becomes the historical cost to be used by the business.

This transaction would be recorded in the journal as shown in Figure 7.5.

Figure 7.5 General Journal: non-cash capital contributions

General Journal					
Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
July 23	Vehicles	23 000			
	Capital		23 000		
	Owner contributed vehicle for business use – agreed value (Memo 16)				

This entry would be posted to the General Ledger accounts as shown below.

General Ledger					
Capital (OE)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 1	Balance	40 000
			31	Vehicles	23 000

Vehicles (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	30 000			
31	Capital	23 000			

REVIEW QUESTIONS 7.4

- 1 Explain** why drawings of stock must be recorded in the General Journal.
- 2 Show** the General Journal entries necessary to record drawings of stock.
- 3 Show** the effect of drawings on the accounting equation.
- 4 Show** the General Journal entries necessary to record a capital contribution of a vehicle.
- 5 Show** the effect of a capital contribution on the accounting equation.

bad debt

an expense incurred when a debt is written off because it is deemed to be irrecoverable

7.5 BAD DEBTS

Unfortunately for small business owners, not all debtors can be counted on to repay the amounts they owe, and occasionally a debt may need to be written off as 'bad'. According to the Conservatism principle, a **bad debt** should be recognised as an expense when the loss is *probable*, so that assets (in this case, Debtors Control) are not overstated. This will usually be when the debtor is in liquidation or has been declared bankrupt and the debt is deemed to be irrecoverable. Recognising a bad debt will ensure the reports contain all the information that is useful for decision-making – such as bad debts in the Income Statement and an updated amount for Debtors Control in the Balance Sheet. This ensures *Relevance*.

Not all debtors can be counted on to repay the amounts they owe, and occasionally a debt may need to be written off as 'bad'



A bad debt is a good example of how an expense does not have to involve a cash payment. If a bad debt is incurred, the business will need to recognise an expense for the loss of an economic benefit in the form of a decrease in assets (Debtors Control), which decreases owner's equity. At the same time as it records this expense, the business must record the decrease in Debtors Control (in the General Ledger) and the account of the individual debtor (in the Debtors Ledger).

EXAMPLE

On 16 March 2015, the business was informed that a debtor (A. Micari) was bankrupt, and of the \$400 owed by Micari, only \$40 would be received (Memo 41).

The \$40 cash received from the debtor would be recorded in the Cash Receipts Journal in the usual way, but the remaining \$360 would be written off in the General Journal as shown in Figure 7.6.

Figure 7.6 General Journal: bad debt

General Journal					
Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
March 16	Bad debts	360			
	Debtors Control		360		
	Debtor – A. Micari				360
	Debt written off as irrecoverable (Memo 41)				

Note how the double entry is preserved in the General Ledger columns, but in the subsidiary ledger columns, a single entry – to the individual account of A. Micari – is necessary. The entry would be posted to the General Ledger as is shown in Figure 7.7.

Figure 7.7 General Ledger: posting a bad debt

General Ledger					
Bad Debts (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Mar. 31	Debtors Control	360			

Debtors Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Mar. 1	Balance	8 000	Mar. 31	Bank/Discount Exp.	3 000
			31	Bad Debts	360

Note that the \$40 cash received would have been recorded in the 'Debtors Control' column of the Cash Receipts Journal, and so is included in the \$3 000 credit to the Debtors Control account (and cross-referenced to 'Bank/Discount expense').

The individual debtor account in the Debtors Ledger would show the following.

Debtors Ledger					
A. Micari (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Mar. 1	Balance	400	Mar. 16	Bank	40
				Bad Debts	360

Effect on the accounting equation

A bad debt has the following effect on the accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Debtors Control)	360
Liabilities	No effect	
Owner's Equity	Decrease (Bad debts expense decreases Net Profit)	360

REVIEW QUESTIONS 7.5

- 1 **Define** the term 'bad debt'.
- 2 Referring to one accounting principle, **explain** when a bad debt should be recognised.
- 3 **Show** the General Journal entries necessary to record a bad debt.
- 4 **Show** the effect of a bad debt on the accounting equation.

STUDY TIP

The 'See, Think, Solve' approach may be used to determine how to correct an error.

7.6 CORRECTING ENTRIES

In an accounting system designed and run by humans, it is only natural that mistakes will occur from time to time. Where these errors are detected before the journals are posted to the ledger, they can be corrected in the journals. However, if the journals have already been posted to the ledger, errors must be corrected using a General Journal entry.

It is difficult to set rules for the correction of errors because such a wide variety of errors may need to be corrected. However, if the error involves recording a transaction in the wrong ledger account, the basic steps to take would be:

- 1 Undo the incorrect entry by reversing it; that is, record a debit entry to undo an incorrect credit, and vice versa.
- 2 Enter the correct entry.

EXAMPLE

On 31 July 2015, it was discovered that \$400 in wages was incorrectly recorded as electricity (Memo 20), and that drawings of stock worth \$250 had been recorded as stock used for advertising (Memo 21).

The correcting entries are shown in Figure 7.8.

Figure 7.8 General Journal: correcting entries

General Journal

Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
July 31	Wages Expense	400			
	Electricity Expense		400		
	Correcting entry – wages recorded as electricity (Memo 20)				
July 31	Drawings	250			
	Advertising		250		
	Correcting entry – drawings recorded as advertising (Memo 21)				

Electricity is credited to undo the incorrect debit to that account when the error was made, and Wages is debited, as this is the correct entry that should have been recorded in the first place.

The debit to **Drawings** is how the entry should have been recorded, with the remaining credit entry to **Advertising** undoing the error. Note that there is no entry to change the Stock Control account, as the stock was removed; the only difference being that it was the owner who took home the stock.

If the error was the omission of a transaction, this could be corrected by simply making an additional entry in the General Journal.

If the error involved the use of an incorrect amount, it could be corrected either by an additional entry using the additional amount or a reducing entry (to credit the account originally debited and vice versa) using the excess amount.

REVIEW QUESTIONS 7.6

- 1 Explain** why in some situations errors may be corrected in the appropriate special journal, but in others a General Journal entry is required.
- 2 List** three types of errors that may need to be corrected via the General Journal.
- 3 List** the two basic steps for correcting an error involving the use of the wrong ledger account.

WHERE HAVE WE BEEN?

- The General Journal is used to record infrequent, non-cash transactions that cannot be recorded in any of the special journals, such as:
 - commencing entries
 - non-cash transactions with the owner
 - bad debts
 - correcting entries
 - use of stock for advertising purposes
 - closing entries
 - balance day adjustments.
- A narration describes each General Journal entry, including a reference to the source document.
- The General Journal is posted to the General Ledger at the end of the month.

EXERCISES

EXERCISE 7.1 COMMENCING ENTRIES

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The owner of Quality Pool Sweepers has decided to convert his records to a double-entry recording system. The following asset and liability balances were listed in Memo 1 on 1 March 2015:

Bank	\$	3 400
Debtors Control		17 500
Stock Control		4 000
Creditors Control		14 000
GST owing to ATO		2 700

Required

- Calculate** Owner's Equity as at 1 March 2015.
- Show** the General Journal entries necessary to record the opening balances on 1 March 2015.
- Post** the General Journal to the General Ledger of Quality Pool Sweepers.
- Explain** why commencing entries must be recorded in the General Journal.

EXERCISE 7.2 COMMENCING ENTRIES

 page 126

Claire's Carpets sells quality flooring and has decided to convert its records to a double-entry recording system. The following asset and liability balances were determined on 1 May 2015:

Bank Overdraft	\$	2 500
Debtors		
– RACV		4 000
– Borders		6 800
Stock Control		17 000
Creditors		
– Woolmark		5 000
– NZ Pile		3 000
Delivery Van		23 000
GST Refund Due from ATO		450

Required

- Show** the General Journal entries necessary to record the opening balances on 1 May 2015. (Narration **not** required.)
 - Explain** the role of a narration in a General Journal entry.
 - Post** the General Journal to the General Ledger and subsidiary ledgers of Claire's Carpets.
- ★ **d Prepare** a classified Balance Sheet for Claire's Carpets as at 1 May 2015.

EXERCISE 7.3

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CONTRIBUTION OF ASSETS AND LIABILITIES

On 1 July 2015, Danielle Mercer commenced business under the name of Danielle's Antiques by contributing:

- \$20 000 cash
- a van with an agreed value of \$13 000
- \$8 000 worth of stock
- an interest-only loan of \$11 000 due 31 March 2020.

Required

- Show** the journal entries necessary to record the contributions on 1 July 2015. (Narration **not** required.)
- Explain** your treatment of the contribution of cash in the journals of Danielle's Antiques.
- Explain** why the vehicle contributed by the owner was valued at its agreed value.

EXERCISE 7.4

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NON-CASH TRANSACTIONS WITH THE OWNER

Tom Matthias owns Tool Town, which on 1 September 2015 had \$45 000 worth of stock on hand. Tom has provided the following memo:

*Required*

- Show** the General Journal entries necessary to record Memo 73.
- Post** the General Journal to the General Ledger of Tool Town.
- State** the effect of Memo 73 on the accounting equation of Tool Town.

EXERCISE 7.5

page 131

NON-CASH TRANSACTIONS WITH THE OWNER

Sybil Hilesio is the owner of Soap and Suds, and let her accountant know of two transactions that had taken place during July 2015:

- | | |
|--------|---------------------------------------------------------------|
| July 2 | Took office furniture home for personal use \$100 (Memo 24) |
| 10 | Contributed to the store new shelving worth \$2 500 (Memo 25) |

Required

- a Show** the General Journal entries necessary to record Memos 24 and 25.
- b Post** the General Journal to the General Ledger of Soap and Suds.
- c** Referring to one accounting principle, **explain** why Memo 24 decreases owner's equity.
- d State** the effect on the accounting equation of Soap and Suds as at 31 July 2015 if Memo 25 is **not** recorded.

EXERCISE 7.6

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NON-CASH TRANSACTIONS WITH THE OWNER

On 12 August 2015, Wendy donated to her business, Wendy's Woollens, a computer that she had purchased for herself a year ago for \$2 000. The computer, which will be used exclusively by the business, has an agreed value of \$1 100, but Wendy has argued that accounting principles demand that it is valued in the business's records at \$2 000.

Required

- a** Referring to one qualitative characteristic, **explain** why the computer must be valued at \$1 100 in the business' records.
- b Show** the General Journal entries to record this transaction. (Narration **not** required.)
- c** Referring to two accounting principles, **discuss** Wendy's argument about the valuation of the computer.

EXERCISE 7.7

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BAD DEBTS

On 14 September 2015, the owner of Dodge Dishwashers went to visit one of his customers – Des T. Chute – to recover a \$1 500 debt. Upon arrival, the owner found that Chute had moved three months ago and left no forwarding address. He decided to write off the debt as bad (Memo 43).

Required

- a Show** the General Journal entries necessary to record the bad debt.
- b Post** the General Journal to the General Ledger of Dodge Dishwashers.
- c State** the effect of this transaction on the accounting equation of Dodge Dishwashers.
- d** Referring to one qualitative characteristic, **explain** why bad debts must be reported in the Income Statement.

EXERCISE 7.8

page 135

BAD DEBTS

Travis Milton owns Terrific Tellies. On 25 March 2015, he received a letter from a solicitor stating that one of the firm's debtors (Ian Solvent) was declaring bankruptcy and would only be able to pay 20c of every dollar owed (Memo 52). The letter was accompanied by a cheque from Ian Solvent for which Travis issued Rec. 31. On 1 March 2015, total debtors owed \$19 500, with \$2 000 of that amount owed by Ian Solvent.

Required

- a Show** the journal entries necessary to record the information on 25 March 2015.
- b Show** how the Debtors Control and Bad Debts accounts would appear after this information was posted to the General Ledger of Terrific Tellies.
- c Complete** the account of Ian Solvent in the Debtors Ledger of Terrific Tellies as at 31 March 2015.
- d State** the effect on the accounting equation of Terrific Tellies if the bad debt was **not** recorded.

EXERCISE 7.9**CORRECTING ENTRIES**

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On 30 June 2015, Barry Powers discovered the following errors just prior to preparing the financial reports for his business, Powers Tools:

- Telephone charges of \$50 (plus \$5 GST) were incorrectly debited to Insurance (Memo 16).
- \$90 recorded as Interest Expense was actually interest on Powers's home loan (Memo 17).
- A payment for Wages of \$234 was incorrectly recorded in the Cash Payments Journal as \$432 (Memo 18).
- A receipt of \$800 from a debtor – B. Billiten – had been incorrectly recorded as a payment to a creditor – B. Bolton (Memo 19).

Required

- a Show** the General Journal entries necessary to correct each error.
- b Explain** why the entries to correct the error regarding telephone charges do **not** affect the GST Clearing account.
- c Suggest** one way the error regarding wages could have been detected.
- d State** the effect on the accounting equation of Power Tools if the error regarding B. Billeten and B. Bolton had **not** been corrected.

EXERCISE 7.10**CORRECTING ENTRIES**

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On 30 June 2015, the following errors were found in the General Ledger of Blue Lines:

- \$120 of equipment was incorrectly debited to Cleaning Expenses.
- Stock that had been used for advertising (worth \$500) had been incorrectly recorded as Drawings.
- A payment of \$100 interest was incorrectly debited to Loan – HBM.
- A debt of \$350 owed by B. Quick that had been written off was recorded in the ledger account of B. Quack.
- A payment of wages of \$505 was incorrectly recorded in the Cash Payments Journal as a payment to a creditor – N. Smythe – for \$550.

Required


- a Show** the General Journal entries necessary to correct each error. (Narrations **not** required.)
- b Explain** the effect on the Net Profit of Blue Lines for June 2015 if the error regarding equipment had **not** been corrected.
- c Explain** the effect on owner's equity of the entries to correct the error regarding stock.
- d State** the effect on the accounting equation of Blue Lines if the error regarding the interest had **not** been corrected.

EXERCISE 7.11
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DOCUMENTS AND THE GENERAL JOURNAL

Jorge Nielson owns and operates a small trading business called Nordic Supplies, selling a range of snowboards, skis and clothing. On 28 February 2015, the balance of the GST Clearing account was \$950 CR.


The only documents relating to debtor I.C. Tusche, which have yet to be recorded in the books of Nordic Supplies, are shown below:

DOCUMENT A

		Nordic Supplies Mansfield Hwy Mansfield VIC 3724 ABN: 36 701 410 302		TAX INVOICE Invoice: B905 5/7, n/30
Charge to: I.C. Tusche Treetops Chalet, Mt Buller				
Date	Details	Qty	Unit Price \$	Total \$
Mar. 2	Thriller Snow Board	1	800	800
	GST			80
	Total		\$	880

Note: Nordic Supplies purchased the Thriller Snow Board for \$500 plus \$50 GST.

DOCUMENT B

 MEMO 7	To: The Accountant
	From: Jorge Nielson
	Date: 29 March 2015
	Subject: I.C. Tusche
Today we received 25 cents in the dollar of the outstanding debt of I.C. Tusche (Rec. 77). However, the insolvency firm representing I.C. Tusche has advised us that the remainder of the debt is irrecoverable.	

Nielson is reluctant to write off the debt, believing that with time the debtor may be able to pay.

Required

- Referring to one accounting principle, **explain** why the bad debt must be recognised on 29 March 2015.
- State** the journals in which Document A and Document B would be recorded.
- State** the effect on the accounting equation of Nordic Supplies if Document A was **not** recorded.
- Show** how the account of I.C. Tusche would appear in the Debtors Ledger after all journals are posted.
- Referring to the definitions, **explain** why a 'bad debt' is reported as an expense.

EXERCISE 7.12

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POSTING FROM THE JOURNALS

Jamie Tape operates a sports store called Omni Sports. His main customers are the Eston Football Club, and the Eagles Soccer Club, both of whom use the credit facilities Jamie offers, and they frequently receive a discount for early payment. On 1 September 2015, the ledger accounts contained the following balances:

Stock Control	\$ 9 000	
Debtors Control	3 080	
– Eston Football Club	1 100	
– Eagles SC	1 980	
GST Clearing	150	CR

The journals for September 2015 showed the following:

Cash Receipts Journal

Date	Details	Rec. no.	Bank	Disc. Exp.	Debtors Control	Cost of Sales	Sales	Sundries	GST
Sept. 1	Eston Football Club	451	1 050	50	1 100				
5	Cash Sales	452	1 320			600	1 200		120
8	Cash Sales	453	990			450	900		90
10	Eagles SC	454	1 880	100	1 980				
17	Eston Football Club	455	1 800	70	1 870				
20	Capital Contribution	456	1 500					1 500	
22	Cash Sales	457	715			325	650		65
25	Eagles SC	458	5 060		5 060				
29	Cash Sales	459	1 100			500	1 000		100
	Totals		15 415	220	10 010	1 875	3 750	1 500	375

Sales Journal

Date	Debtor	Invoice number	Cost of Sales	Sales	GST	Debtors Control
Sept. 4	Eston Football Club	66	850	1 700	170	1 870
8	Eagles SC	67	1 000	2 000	200	2 200
13	Eagles SC	68	1 300	2 600	260	2 860
21	Eston Football Club	69	700	1 400	140	1 540
28	Eagles SC	70	550	1 100	110	1 210
	Totals		4 400	8 800	880	9 680

General Journal

Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Sept. 30	Drawings	70			
	Stock Control		70		
	Jamie took home stock (Memo 3)				
Sept. 30	Bad debts	1 210			
	Debtors Control		1 210		
	Debtor – Eagles SC				1 210
	Eagles SC declared bankrupt – debt written off (Memo 4)				

Additional information:

- All purchases of stock are made on credit. Credit purchases for September 2015 amounted to \$6 820 (including GST).
- GST paid for September 2015 was \$190.
- Jamie has stated that bad debts are reducing his revenue, so they are leaving him with less cash.

Required

- Identify** one part of Jamie's statement that is correct. **Justify** your answer.
- Identify** one part of Jamie's statement that is incorrect. **Justify** your answer.
- Referring to one qualitative characteristic, **explain** why Jamie's Drawings must be recorded in the accounting records of Omni Sports.
- Post** the journals to the following accounts in the General Ledger of Omni Sports: Stock Control, Debtors Control, GST Clearing, Sales, Bad Debts, Discount Expense.
- * **Balance** the Stock Control account as at 30 September 2015.
- Complete** the account of Eagles SC in the Debtors Ledger of Omni Sports.
- Explain** the effect of the bad debt from Eagles SC on the Balance Sheet of Omni Sports as at 30 September 2015.

Where are we headed?

After completing this chapter, you should be able to:

- **define** and **identify** stock, and **explain** its importance to a trading firm
- **explain** the role of a stock card, and its relationship to the Stock Control account
- **record** transactions in stock cards
- **explain** and **apply** the First In, First Out (FIFO) assumption to sales of stock
- **explain** the relationship between stock cards and the special journals
- **explain** the role of a physical stocktake
- **state** the reasons for a stock loss or stock gain
- **record** a stock loss and stock gain in the stock card, General Journal and General Ledger
- **record** the use of stock for advertising purposes in the stock card, General Journal and General Ledger
- **distinguish** between Cost of Sales and Cost of Goods Sold
- **prepare** an Income Statement showing Gross Profit and Adjusted Gross Profit
- **explain** the benefits of using a perpetual system to account for stock.

CHAPTER 8

ACCOUNTING FOR STOCK

KEY TERMS

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

- trading firm
- stock
- stock card
- cost price
- First In, First Out (FIFO)
- stocktake
- stock loss
- stock gain
- Cost of Goods Sold (COGS)
- perpetual system of stock recording.

trading firm

a firm that purchases goods in order to resell them at a profit

stock

goods purchased by a trading firm for the purpose of resale at a profit

Any goods that are purchased by a trading firm with the intention of being resold at a later date for profit, should be considered stock

8.1 TRADING FIRMS AND STOCK

Throughout this text we have discussed the procedures to record and report the transactions of a **trading firm** – a firm that buys stock with the intention of reselling it for a profit. What do we mean by stock?

Definition of stock

Consider the example of a plant nursery. Among the assets under its control would be various plants, pots, garden supplies and gardening tools, as well as other items, such as shelving, a business vehicle and office equipment. Which of these should be considered to be **stock**?

Obviously, any plants and pots that are held for resale should be considered as stock. In fact, any goods that are purchased by a trading firm with the intention of being resold at a later date for profit, should be considered stock. This may mean that the garden supplies and gardening tools are stock if they are held for resale, but not considered stock if they are held for use within the business (to tend the plants and maintain the appearance of the nursery). The shelving, business vehicle and office equipment, on the other hand, would not be considered stock. This is not to say that these items will never be sold, but the intention behind their purchase was use, not resale, so they are not stock.



This potential for resale – at a profit – some time in the future means that stock represents a *future economic benefit*, and because the stock is also under the *control* of the trading firm, stock fits perfectly the definition of an asset. Given that the firm's intention would be to resell the stock *within the next 12 months*, it means that stock is a current asset.

The importance of stock

For a trading firm, stock is of paramount importance. First, stock is its main source of revenue, and thus the key to its ability to earn profit. A trading firm that cannot sell its stock will not survive. Second, stock is likely to be one of the most significant assets the firm controls. Despite the, perhaps immense, value of property and premises, it is still possible for stock to be the largest single asset listed in the firm's Balance Sheet.



Despite the, perhaps immense, value of property and premises, it is still possible for stock to be the largest single asset listed in the firm's Balance Sheet

Unfortunately, stock is not only one of the most important assets for a trading firm, but also one of the most vulnerable. Stock is susceptible to damage, spoilage, theft and even changes in tastes and fashions, each of which can undermine its value.

Given its importance and vulnerability, it is vital that the accounting system is able to provide accurate information about stock.

REVIEW QUESTIONS 8.1

- 1 **Define** the term 'trading firm'.
- 2 **Define** the term 'stock'.
- 3 **Explain** how stock should be classified in the Balance Sheet.
- 4 **State** two reasons why stock is important to a trading firm.
- 5 **State** three reasons why stock is considered to be a vulnerable asset.

8.2 THE STOCK CONTROL ACCOUNT

All movements of stock are summarised in the Stock Control account, with stock 'in' (primarily through purchases) recorded on the debit side, and stock 'out' (mainly through sales) recorded on the credit side.

Stock Control (A)

Stock IN			Stock OUT		
Stock Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 1	Balance	4 900	Aug. 31	Cost of Sales	3 500
	31 Bank	1 500		Cost of Sales	2 200
	Creditors Control	3 700		Drawings	200
				Advertising	100
				Balance	4 100
		10 100			10 100
Sept. 1	Balance	4 100			

The Stock Control account shows a summary of total cash and credit purchases on the debit side, with total cash and credit sales recorded at cost price, and cross-referenced to Cost of Sales; stock withdrawals by the owner; and stock used for advertising purposes recorded on the credit side. The \$4 100 balance of the Stock Control account represents the total value of *all* stock on hand.

The Stock Control account summarises all stock transactions.

REVIEW QUESTIONS 8.2

- 1 **Explain** the role of the Stock Control account.
- 2 **Identify** two transactions that would appear on the debit side of the Stock Control account.
- 3 **Identify** four transactions that would appear on the credit side of the Stock Control account.

8.3 STOCK CARDS

Although the Stock Control account in the General Ledger provides an important summary of all movements of stock in and out of the firm, this account alone will not provide sufficient information to manage stock effectively. Most trading firms will carry a number of different lines of stock: different items, different colours, different sizes. It is vital that the owner has detailed information relating to each line of stock, from basics (such as its description, location in the warehouse and supplier) to financial information (such as the cost price of each unit, the number of units purchased and sold, and the number of units on hand at any point during the period).

This information must also be recorded, and this must be done in far more detail than the Stock Control account can provide. For this reason, a Stock Control account is used to summarise all transactions affecting stock, with information relating to individual lines of stock, including details of stock transactions, recorded in **stock cards**. A trading firm will only ever have one Stock Control account in the General Ledger, but could have a huge number of stock cards, with one stock card for every different line of stock.

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

Stock cards detail the individual transactions affecting each individual line of stock.

This relationship between the Stock Control account and the stock cards is similar to the relationship between the Debtors Control account and the Debtors Ledger, or the Creditors Control account and the Creditors Ledger. The control account (in the General Ledger) provides a summary of all transactions, with specific, detailed information relating to each individual transaction recorded in the subsidiary records. In this way, summary information is available for reports, with specific details available for managing debtors, creditors and stock. A typical stock card is shown in Figure 8.1.

Figure 8.1 Stock card

Stock item: Plant pot – terracotta, 60 cm		Location: Row 16, Bay C3								
Stock code: PTC60		Supplier: Potty 4 You								
		IN			OUT			BALANCE		
Date	Details	Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total

Top portion: details of item

The top portion of the stock card shows the details relating to the stock item itself, including a description of the item (in this case, a 'Plant pot – terracotta, 60 cm'). Its code (PTC60) is also identified for easy reference within the firm. The location (Row 16, Bay C3) can also be very important, particularly for stock stored in a large warehouse with many different storage bays. Lastly, the name of the supplier (Potty 4 You) is identified to assist reordering.

If the firm sells plant pots in different sizes, each different-sized pot will need its own stock card. In addition, if the firm sells pots in different colours, each of these will also require a different stock card, with a different one for each size of each colour.

Bottom portion: transactions

The bottom portion of the stock card is used to record the transactions, and is divided into four main sections: Date and Details; and the In column; Out column; and Balance column.

Date and Details

The first section is used to record standard information relating to the date and details of each stock transaction. 'Details', in this case, refers to the source document that verifies each transaction.

In, Out and Balance columns

These columns record exactly what they state:

- The In column records all stock coming in to the business, mainly through purchases.
- The Out column records all stock leaving the business, through sales or perhaps drawings or advertising.
- The Balance column shows the stock on hand, and available for sale, valued at **cost price**.

Whereas the Stock Control account shows transactions in dollar terms only, the stock card also shows the quantity, or number, of items of stock and their unit cost; that is, the cost price of each individual stock item. The total cost of each transaction is calculated by multiplying the quantity by the cost:

$$\text{Total} = \text{Quantity} \times \text{Cost}$$

cost price
the original purchase price
of stock

REVIEW QUESTIONS 8.3

- 1 **Explain** the relationship between the Stock Control account and the stock cards.
- 2 **Identify** four details that will be provided in the top portion of a stock card but not in the Stock Control account.
- 3 **Identify** three details that are provided when transactions are recorded in the stock card but are not provided in the Stock Control account.
- 4 **State** how many stock cards a typical trading firm would require. *Beware: This is a trick question!*

8.4 RECORDING TRANSACTIONS IN STOCK CARDS

Where cost prices are constant

STUDY TIP

Remember that GST does not affect the valuation of stock, nor the revenue earned from its sale.

Purchases

Aug. 5 Purchased 6 terracotta pots (60 cm) on credit from Potty 4 You @ \$60 (plus \$6 GST) each (Inv. 364)

A purchase means that stock is coming in to the business, so this transaction must be recorded in the In column as quantity 6, cost \$60, total \$360 (6 x \$60). The effect is to increase the number of items on hand in the Balance column to 10 pots (four on hand plus the six just purchased) at \$60, for a cost of \$600.

Sales

Aug. 12 Cash sale of 3 terracotta pots (60 cm) for \$100 (plus \$10 GST) each (Rec. 23)

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 pots is given on the source document (Rec. 23) as \$100, but no \$100 pots are listed in the stock card. How can this be?

Remember that the price on the source document (**\$100 each**) will be the **selling price**, but the stock card shows the **cost price**, which is **\$60 each**. The cost price of the stock is not revealed to the customer as this protects the Gross Profit on the sale; customers who are aware of the mark-up have a tendency to haggle harder for price reductions. The cost price is revealed only when the transaction is recorded in the stock card, so this sale is recorded as quantity 3, cost \$60 (not \$100), total \$180 (3 x \$60). The effect is to decrease the number of items on hand in the Balance column to seven pots (10 on hand less the three just sold) at \$60, for a cost of \$420. This is shown in Figure 8.2.

Figure 8.2 Stock card: constant prices

STOCK CARD										
Stock item: Plant pot – terracotta, 60 cm					Location: Row 16, Bay C3					
Stock code: PTC60					Supplier: Potty 4 You					
Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Aug. 1	Balance							4	60	240
5	Inv. 364	6	60	360				10	60	600
12	Rec. 23				3	60	180	7	60	420

Cost of Sales and Gross Profit

The amount recorded in the Out Total column represents the Cost of Sales figure for the transaction. For this sale, Sales revenue would be **\$300** (three pots at **\$100 selling price**) and Cost of Sales would be **\$180** (three pots at **\$60 cost price**), leaving a Gross Profit of \$120; that is, **Sales revenue (\$300)** less **Cost of Sales (\$180)** = Gross Profit (\$120).

Where cost prices are changing

Frequently, the cost price charged by the supplier will change during the Reporting 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 8 terracotta pots (60 cm) on credit from Potty 4 You @ \$70 (plus \$7 GST) each (Inv. 370)

As this is a purchase and will increase the stock on hand, this transaction must be recorded in the In column as quantity 8, cost \$70, total \$560 (8 x \$70). There are now 15 pots on hand and the Balance column must reflect this, but we cannot simply aggregate the stock as 15 units at one particular unit cost. Some of the pots were purchased at \$60, and others were purchased at \$70, so which unit cost should be used for the balance? The short answer is *both*.

Even though the pots are identical in the eyes of the customers, the cost prices of the stock batches differ: **seven** were purchased for **\$60** each, while the **eight** new pots were purchased for **\$70** each. Therefore, they must be listed separately in the Balance column of the stock card.

Sales

Aug. 23 Credit sale of 10 terracotta pots (60 cm) for \$110 (including \$10 GST) each (Inv. 56)

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: **seven** units at **\$60** each, and **eight** units at **\$70** each. Which stock has been sold?

Identified cost

One option is to physically mark or label each pot in some way (such as a sticker with a colour code, letter code or bar code) and then keep a record of the cost price that relates to that code. In this way, the business could simply match the code on the item to the price in its records to identify the exact cost price (\$60 or \$70) of every pot.

However, not all businesses will identify the cost price of their stock in this way, for a variety of reasons.

First, there will be some types of stock for which it is *not possible* to label every item to identify its cost. In this category would be petrol at a service station, which may be bought at different cost prices, but mixes in the same tank and is therefore impossible to label.

Second, for other items of stock it may be possible, but *not practical*: a fruit shop *could* label every grape, but this is unlikely to be the best use of the staff's skills and time, especially since grapes are sold by the bunch, rather than individually.

Third, even where identifying the cost is both possible and practical, the owner may still decide it is not worth the time, effort and, perhaps most importantly, cost to label every item of stock, and then record each code and cost price in the accounting records. This appears to be the case in the example, where there is no code, label or marker to identify the cost price of each pot.

First In, First Out (FIFO)

Where stock is not labelled or marked – because it is impossible or impractical, or deemed by the owner to be not worth the time, effort and cost – the cost price cannot be identified. Therefore, when the stock is sold, an *assumption* must be made about its cost price. Under the **First In, First Out (FIFO)** assumption, we *assume* that the stock that was purchased first will be sold first, even though we have no way of knowing for certain.

In the example provided, FIFO means that from the stock still on hand, we will assume that the **seven** pots valued at \$60 (which were purchased first) will be sold first, followed by **three** pots (to make up the 10 pots sold) assumed to be from the \$70 batch. This is shown in Figure 8.3.

Figure 8.3 Stock card: FIFO

STOCK CARD

Stock item:		Plant pot – terracotta, 60 cm			Location:		Row 16, Bay C3			
Stock code:		PTC60			Supplier:		Potty 4 You			
		IN			OUT			BALANCE		
Date	Details	Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Aug. 1	Balance							4	60	240
5	Inv. 364	6	60	360				10	60	600
12	Rec. 23				3	60	180	7	60	420
17	Inv. 370	8	70	560				7	60	420
								8	70	560
23	Inv. 56				7	60	420			
					3	70	210	5	70	350

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, and customers may buy the pots that were purchased more recently, rather than those that were first in. Without marking stock, there is no way of knowing the cost price of the stock that has been sold, making FIFO an acceptable and necessary assumption.

REVIEW QUESTIONS 8.4

- 1 **Explain** why GST does not affect the valuation of a stock purchase.
- 2 **State** the effect on the balance of a transaction recorded in the:
 - In column
 - Out column.
- 3 **Explain** why the cost price is not shown on the source document that provides the evidence of a sale.
- 4 **Explain** how the stock card is used to determine the Cost of Sales for each transaction.
- 5 **State** three reasons why a small business might choose to value its stock using the FIFO (First In, First Out) assumption.
- 6 **Explain** the FIFO assumption as it applies to stock cards.
- 7 **Identify** three transactions to which the FIFO assumption must be applied.

8.5 STOCK CARDS AND JOURNALS

Earlier, we noted that the price on the source document will be the selling price, because the cost price of the stock is not revealed to the customer. But when cash sales are recorded in the Cash Receipts Journal, and credit sales are recorded in the Sales Journal, we must identify both the **selling price** and the *cost price*. This makes the stock cards a vital source of information when transactions are recorded in the journals, because it is the stock cards that will determine the cost price of each sale.

The **selling price** of each sale is detailed on the invoice/receipt.
The **cost price** of each sale is determined in the stock card.

Woolly Good Jumpers has provided the following transactions for July 2015:

- July 2 Credit sale of 6 jumpers to Noogee: **\$300** (plus \$30 GST) each (Inv. 49)
- 5 Purchase of 12 jumpers @ **\$35** (plus \$3.50 GST) each (Ch. 142)
- 9 Cash sale of 10 jumpers for **\$600** (plus \$60 GST) in total (Rec. 23)

EXAMPLE

The transactions would be recorded in the stock card as shown below:

STOCK CARD

Stock Item: Woollen jumpers		Location: Aisle 16								
Stock Code: WJ		Supplier: Merino Mills								
		IN			OUT			BALANCE		
Date	Details	Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
July 1	Balance							8	30	240
2	Inv. 49				6	30	180	2	30	60
5	Ch. 142	12	35	420				2	30	60
								12	35	420
9	Rec. 23				2	30	60			
					8	35	280	4	35	140

The selling price of the credit sale to Noogee on 2 July 2015 can be seen on the source document – Invoice 49 – as **\$300** (plus \$30 GST) and, from the stock card, the cost price has been calculated as **\$180**. This cost price can then be used when the transaction is recorded in the Sales Journal, as is shown in Figure 8.4.

Figure 8.4 Sales Journal showing Cost of Sales

Sales Journal

Date	Debtor	Invoice number	Cost of Sales	Sales	GST	Debtors Control
July 2	Noogee	49	180	300	30	330

Similarly, the receipt for the cash sale on 9 July 2015 showed the selling price as **\$600** (plus \$60 GST), but it is the stock card that has been used to determine the cost price of **\$340**. FIFO has been applied to the sale, assuming that all the jumpers with a cost price of \$30 are sold first, followed by the jumpers with a cost price of \$35. The selling price and cash price would be recorded in the Cash Receipts Journal, as is shown in Figure 8.5.

Figure 8.5 Cash Receipts Journal showing Cost of Sales

Cash Receipts Journal

Date	Details	Receipt number	Bank	Discount Expense	Debtors Control	Cost of Sales	Sales	Sundries	GST
July 9	Cash Sales	23	660			340	600		60

The amounts in the Total column of the Out section of the stock card represent the cost price of the sale. These amounts represent the expense incurred when the stock is sold, or the Cost of Sales. They will be recorded in the Cost of Sales column in the special journals, and then posted to the Cost of Sales account in the General Ledger to show the value of stock consumed during each month.

REVIEW QUESTIONS 8.5

- 1 **Explain** the importance of stock cards when sales are recorded in the special journals.
- 2 **Explain** the importance of stock cards when purchases are recorded in the special journals.
- 3 **Identify** two means of verifying the amounts recorded in the Cost of Sales account in the General Ledger.

8.6 THE PHYSICAL STOCKTAKE

Because the stock cards are updated after every transaction, they provide a continuous (or perpetual) record of stock on hand. That is, at any stage, the number of units shown in the Balance column should reflect the quantity of stock on hand in the shop, showroom or warehouse. However, just because the stock card says there should be a certain number of items on hand does not mean this will be the case. Therefore, the number of units on hand should be checked periodically by conducting a physical **stocktake**. A stocktake involves a physical count of the number of units of each line of stock on hand. This count can then be compared against the balances in the stock cards to check their accuracy, and detect any stock losses or gains.

stocktake

a physical count of the number of units of each line of stock on hand



A stocktake involves a physical count of the number of units of each line of stock on hand

STUDY TIP

If the stocktake and stock cards differ, assume the stocktake is correct.

The role of the stocktake is to verify the accuracy of the stock cards and, in the process, detect any stock losses and Stock Gains.

Although the stocktake can be done at any time, it is a time-consuming and costly process. As a consequence, a stocktake is likely to be done only infrequently. At the very least, this would be at the end of the Reporting Period.

REVIEW QUESTIONS 8.6

- 1 **Define** the term 'stocktake'.
- 2 **Explain** the role of a stocktake.

8.7 STOCK LOSSES

stock loss

an expense incurred when the stocktake shows a figure for stock on hand that is less than the balance shown in the stock card

Whenever the number of units counted at stocktake is *less* than the quantity shown in the balance of the stock card, a **stock loss** has occurred. This may be for a variety of reasons, including:

- theft
- damage/breakages
- undersupply from a supplier – a supplier has delivered less stock than has been charged for
- oversupply to a customer – stock has been supplied to customers in excess of what they have been charged for.

Whenever the number of units counted at stocktake is *less* than the quantity shown in the balance of the stock card, a stock loss has occurred. This may be for a variety of reasons, including damage/breakages.



Recording a stock loss

A stock loss means that there is less stock available for sale than is currently shown in the stock card and Stock Control account, so the quantity missing (or lost) must be recorded in the Out column of the stock card, and as a credit in the **Stock Control** account. In addition, the **Stock Loss** itself is an expense: an outflow of an economic benefit (Stock) in the form of a decrease in assets (Stock Control), leading to a decrease in owner's equity. This must also be shown in the ledger.

EXAMPLE

On 31 August 2015, the stocktake showed **3 terracotta pots on hand** (Memo 19). Comparing this figure against the balance on the stock card (**5 pots on hand**) revealed a stock loss of **2 pots**.

This stock loss would be recorded in the Out column of the stock card, as shown in Figure 8.6:

Figure 8.6 Stock card: stock loss

STOCK CARD										
Stock item: Plant pot – terracotta, 60 cm					Location: Row 16, Bay C3					
Stock code: PTC60					Supplier: Potty 4 You					
Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Aug. 1	Balance							4	60	240
5	Inv. 364	6	60	360				10	60	600
12	Rec. 23				3	60	180	7	60	420
17	Inv. 370	8	70	560				7	60	420
								8	70	560
23	Inv. 56				7	60	420			
					3	70	210	5	70	350
31	Memo 19				2	70	140	3	70	210

STUDY TIP

FIFO must apply to stock loss just as it applies to sales. Should more than one cost price be listed in the stock card, the earliest stock should be assumed to be lost.

The new balance in the stock card – 3 pots – is the same as the stocktake.

The memo noted the number of units on hand, and thus the number of units missing, but it is the stock card that puts a value on those items (in this case, \$140), allowing it to be recorded in the ledger accounts. This is done by creating a **Stock Loss** expense account, and decreasing the balance of stock on hand by crediting the **Stock Control** account. The General Journal entry to adjust the ledger accounts is shown in Figure 8.7.

Figure 8.7 General Journal: recording a stock loss

General Journal					
Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Aug. 31	Stock Loss	140			
	Stock Control		140		
	Stocktake revealed stock loss of 2 pots – PTC60 (Memo 19)				

The narration here is quite detailed, identifying the specific stock line involved (in this case, using the product code – PTC60) and the quantity of pots lost (2). In the case of recording stock losses for a number of different lines of stock, this level of detail would be impossible to include. Consequently, it is the source document (Memo 19) that is most important to include in the narration, as it would contain all the necessary details recorded in the stock cards.

The General Journal entry for the stock loss would be posted to the General Ledger as shown in Figure 8.8.

Figure 8.8 General Ledger: stock loss

General Ledger					
Stock Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 1	Balance	4 900	Aug. 31	Cost of Sales	3 500
31	Bank	1 500		Cost of Sales	2 200
	Creditors Control	3 700		Drawings	100
				Stock Loss	140

Stock Loss (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 31	Stock Control	140			

Effect on the accounting equation

The effect of a stock loss on the accounting equation is:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Stock Control)	140
Liabilities	No effect	
Owner's Equity	Decrease (Stock Loss expense decreases Net Profit)	140

REVIEW QUESTIONS 8.7

- 1 Explain** why a stock loss is classified as an expense.
- 2 Identify** three reasons for a stock loss.
- 3 Explain** how the cost price of a stock loss is determined.
- 4 Show** the General Journal entries necessary to record a stock loss.
- 5 State** the effect of a stock loss on the accounting equation.

stock gain

a revenue earned when the stocktake shows a figure for stock on hand that is more than the balance shown in the stock card

STUDY TIP

Stock gain is a good reminder that revenue does not need to be cash; in this case, stock is the asset that has increased, with no effect on cash.

8.8 STOCK GAINS

Where the number of units counted by the stocktake is *more* than the quantity shown in the balance of the stock card, a **stock gain** has occurred. This may be due to:

- *oversupply from a supplier* – a supplier has sent us stock for which we have not been charged
- *undersupply to a customer* – we have charged a customer for stock that we have not delivered (and the customer has not realised).

Recording a stock gain

A stock gain means that there is more stock available for sale than is currently shown in the stock card and Stock Control account, so the quantity gained must be recorded in the In column of the stock card, and as a debit in the **Stock Control** account. In addition, the **stock gain** itself is a revenue item – an inflow of an economic benefit (more stock) in the form of an increase in assets (Stock Control), leading to an increase in owner's equity, and this must also be shown in the ledger.

EXAMPLE

On 31 October 2015, the stocktake revealed 35 pairs of gardening gloves on hand (Memo 31). The stock card for gloves showed a balance of 27 pairs, so a stock gain of eight pairs was detected.

This stock gain would be recorded in the In column of the stock card, as shown in Figure 8.9.

Figure 8.9 Stock card: stock gain

STOCK CARD										
Stock item: Gardening Gloves					Location: Row 21, Bay A5					
Stock code: G10					Supplier: Amsten Products					
Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Oct. 1	Balance							22	10	220
15	Inv. 30A	30	12	360				22	10	220
								30	12	360
23	Rec. 30				22	10	220			
					3	12	36	27	12	324
31	Memo 31	8	12	96				35	12	420

STUDY TIP

For a stock gain, stock should be valued at the lowest cost price still on hand.

In order to satisfy the demands of *Conservatism*, any stock that must be put back into the stock card must be valued at the *lowest cost price still on hand*. This ensures the asset (**Stock Control**) and the revenue (**stock gain**) are not overstated. In this case, the lowest cost price still on hand is \$12, so the stock gain of eight pairs is valued at \$96 in total. This leaves the balance of stock on hand as 35 pairs (as was detected in the stocktake), each worth \$12, for a total value of \$420.

In the General Journal, the balance of **Stock Control** is increased via a debit entry to that account, and a **stock gain** revenue account is created via a credit entry. This is shown in Figure 8.10.

Figure 8.10 General Journal: stock gain

General Journal					
Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Oct. 31	Stock Control	96			
	stock gain		96		
	Stocktake revealed stock gain of 8 pairs of gloves – G10 (Memo 31)				

The General Journal entry for the stock gain would be posted to the General Ledger as shown in Figure 8.11.

Figure 8.11 General Ledger: stock gain

General Ledger					
Stock Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 1	Balance	4 300	Oct. 31	Cost of Sales	3 800
31	Bank	1 700		Cost of Sales	1 900
	Creditors Control	3 900			
	stock gain	96			

Stock Gain (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Oct. 31	Stock Control	96

Effect on the accounting equation

The effect of a stock gain on the accounting equation is thus:

	Increase/Decrease/No effect	Amount \$
Assets	Increase (Stock Control)	96
Liabilities	No effect	
Owner's Equity	Increase (stock gain revenue increases Net Profit)	96

REVIEW QUESTIONS 8.8

- 1 Explain** why a stock gain is classified as revenue.
- 2 Identify** two reasons for a stock gain.
- 3 Explain** how the cost price of a stock gain is determined.
- 4 Show** the General Journal entries necessary to record a stock gain.
- 5 State** the effect of a stock gain on the accounting equation.

8.9 USE OF STOCK FOR ADVERTISING PURPOSES

One final transaction that may affect both the stock cards and the Stock Control account is where stock is used for advertising purposes. Sometimes stock can be taken out of the store to be used for display purposes, and small businesses frequently donate stock to local community organisations (such as schools, church groups or charities), who use the stock as prizes in raffles or fundraising events. In either case, the business donating the stock can legitimately claim that the stock has been used for the purpose of advertising.

If stock is used for this purpose it must be recorded in the Out column of the stock card, and as an expense and a reduction in Stock Control in the General Ledger.

EXAMPLE

On 15 August 2015, 3 wheelbarrows were donated to the local fete (Memo 16).

This use of stock for advertising purposes would be recorded in the Out column of the stock card, as shown in Figure 8.12:

Figure 8.12 Stock card: advertising

STOCK CARD										
Stock Item: Wheelbarrows			Location: Store room							
Stock Code: FD100			Supplier: Nickwell							
Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Aug. 1	Balance							2	80	160
								10	95	950
15	Memo 16				2	80	160			
					1	95	95	9	95	855

As it is recorded in the Out column, the stock used for advertising is valued according to FIFO (just like a sale, drawings or stock loss), so **two** of the wheelbarrows are valued at **\$80** each, before **one** valued at **\$95**.

In the General Journal, the balance of **Stock Control** decreases via a credit entry to that account, and **Advertising** expense increases via a debit entry. This is shown in Figure 8.13:

Figure 8.13 General Journal: advertising

General Journal					
Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Aug. 15	Advertising	255			
	Stock Control		255		
	3 wheelbarrows donated to local fete (Memo 16)				

The General Journal entry for advertising would be posted to the General Ledger, as shown in Figure 8.14:

Figure 8.14 General Ledger: advertising

General Ledger					
Stock Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 1	Balance	10 000	Aug. 31	Cost of Sales	8 500
31	Bank	3 200		Cost of Sales	4 900
	Creditors Control	19 800		Advertising	255

Advertising (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 31	Bank	480			
	Stock Control	255			

Although the transaction was recorded in the General Journal on the day the stock was donated (15 August 2015), the General Journal is not posted to the General Ledger until the end of the month (31 August 2015).

Effect on the accounting equation

The effect of stock used for advertising purposes on the accounting equation is thus:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Stock Control)	255
Liabilities	No effect	
Owner's Equity	Decrease (Advertising expense decreases Net Profit)	255

REVIEW QUESTIONS 8.9

- State** two reasons why a small business may use stock for advertising purposes.
- Explain** why stock used for advertising purposes is classified as an expense.
- Explain** how the cost of stock used for advertising purposes is determined.
- Show** the General Journal entries necessary to record stock used for advertising purposes.
- State** the effect of stock used for advertising purposes on the accounting equation.

8.10 STOCK AND INFORMATION FLOWS

Figures 8.15 and 8.16 summarise the way information about stock transactions flows through the accounting system.

Figure 8.15 Purchases: In column

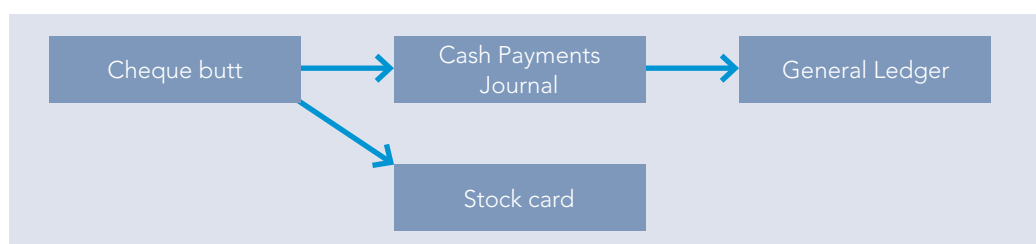
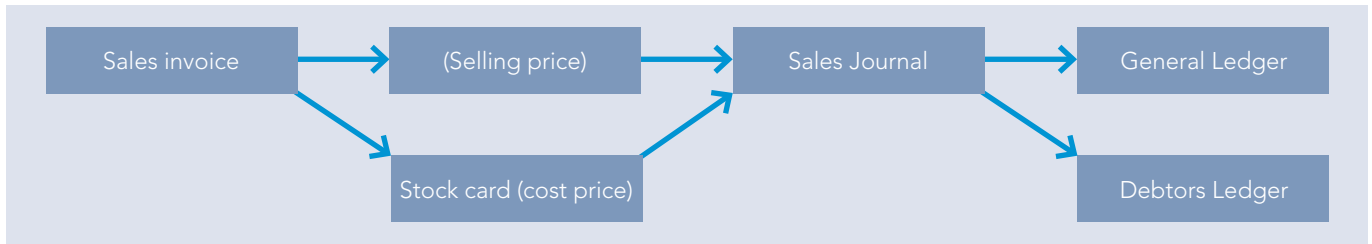
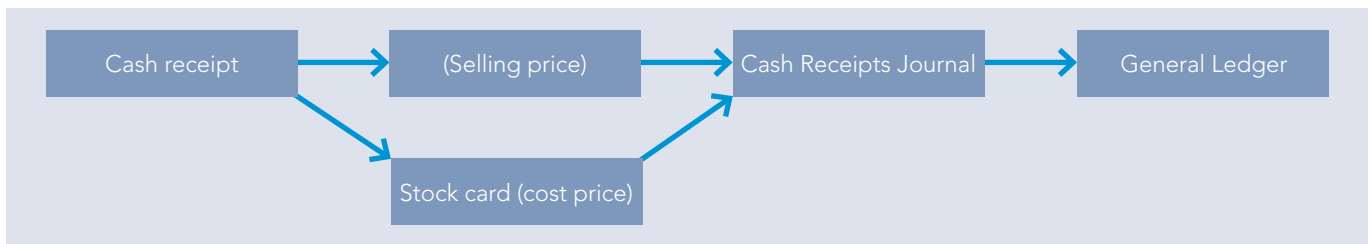
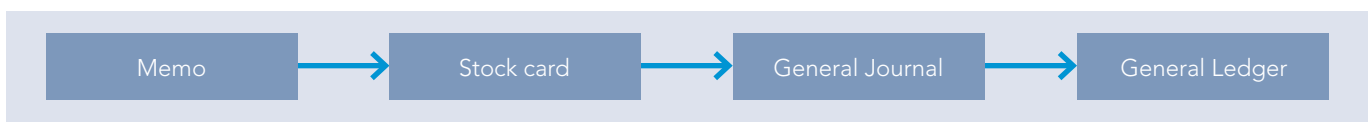
Credit purchase**Cash purchase**

Figure 8.16 Sales: Out column**Credit sale****Cash sale****Drawings, stock losses/gains and advertising****8.11 REPORTING FOR STOCK**

Once stock transactions are entered in the stock cards and recorded in the journals, the journals must be posted to the ledger accounts. At this point, the ledger accounts will contain all the information that is necessary to prepare reports.

Balance Sheet

Relevance says that there is little point in identifying the quantity of every line of stock in the Balance Sheet, as this level of detail will not affect decision-making. The only item specific to stock that must be reported in the Balance Sheet is Stock Control. The balance of this General Ledger account must be reported as a current asset as the stock is a resource controlled by the business that is expected to provide a future economic benefit in the next 12 months (when it is sold).

Income Statement

The main reason any business exists is to generate profits for its owner. The Income Statement details that profit by reporting revenues and expenses. So how does stock affect the report?

Sales revenue

1 Sales of stock will be the main source of revenue for a trading firm, and this will be recorded in the journals and shown as the balance of the Sales account in the General Ledger. It is important to note that Sales revenue must be reported separately to Other Revenues, such as discount revenue, which do not relate specifically to stock.

Cost of Goods Sold (COGS)

all costs incurred in getting stock into a condition and location ready for sale

Cost of Goods Sold

2 As was explained earlier in this chapter, the stock cards are necessary to calculate the cost price of each sale, and this information is then recorded in the appropriate special journal before it is posted to the Cost of Sales account. This account records the expense incurred when stock is sold or, in the parlance of the definition, consumed. Specifically, it is the suppliers' price for the goods that were sold. However, Cost of Sales may be only one of a number of expenses related to stock, as other costs may have been incurred before the stock was ready for sale. The term **Cost of Goods Sold (COGS)** is used to describe *all* costs incurred in getting goods into a condition and location ready for sale, with Cost of Sales simply one of the items that may be reported under this heading. Expenses such as Customs Duty and Freight In are also part of the total COGS, which must be deducted from Sales revenue to determine Gross Profit.

Gross Profit

3 In mathematical terms, Gross Profit is the difference between the Sales revenue and Cost of Goods Sold. Because Gross Profit expresses the relationship between the firm's selling and cost prices, it is important that this figure is identified (with its own heading) to allow the owner to assess the adequacy of their mark-up.

Adjusted Gross Profit

4 Any stock loss must be deducted from Gross Profit to show Adjusted Gross Profit, while any stock gain would be added. Isolating the stock loss or gain brings it to the attention of the owner so that strategies may be developed to address any problems that are identified.

A standard Income Statement for a trading firm would be similar to the one shown in Figure 8.17.

Figure 8.17 Income Statement showing Gross Profit and Adjusted Gross Profit

MARCONI ELECTRONIC PRODUCTS Income Statement (extract) for August 2015

Revenue	\$	\$
Sales		30 000
Less Cost of Goods Sold²		
Cost of Sales	17 000	
Customs Duty	2 000	
Freight In/Delivery from Suppliers	1 000	
Gross Profit³		10 000
Less Stock Loss		500
Adjusted Gross Profit⁴		9 500

STUDY TIP

Discount revenue is not reported here, as it is earned not by selling stock but by paying creditors early. The same applies to discount expense; it affects the amount paid, not the amount incurred for stock.

This is obviously not a complete Income Statement, as it does not show any other 'garden variety' expenses, such as wages, rent or advertising, and it does not show Net Profit. (These will be covered in Chapter 9 when the Income Statement is addressed in detail.)

However, this top section of the Income Statement, sometimes referred to as a Trading Statement, details the effect of stock transactions on profit, and this information is vital to running a successful trading business.

REVIEW QUESTIONS 8.11

- 1 **Define** the term 'Cost of Goods Sold'.
- 2 **State** two reasons why Cost of Goods Sold may be greater than Cost of Sales.
- 3 **Explain** why it is important to identify Gross Profit in the Income Statement.
- 4 **Explain** why it is important to identify Adjusted Gross Profit in the Income Statement.

8.12 BENEFITS OF THE PERPETUAL SYSTEM

The stock recording system now consists of stock cards, a Stock Control account in the General Ledger, and a physical stocktake: these are the key elements of what is known as the **perpetual system of stock recording**. The perpetual (or continuous) system involves recording individual stock transactions in stock cards as they occur, then conducting a physical stocktake at the end of the Reporting Period to verify the balances of those stock cards. In the process, any stock losses or gains will be detected.

The key benefits of adopting a perpetual system for recording stock transactions are as follows:

- *Reordering of stock is assisted by maintaining a continuous record of the number of units of stock on hand.* Without a continuous record of stock available for sale, it is possible that the only way the business will know that it needs to reorder stock is when the customers or staff notice that the shelves are empty. This could be disastrous in terms of lost sales.
- *Stock losses and gains can be detected by comparing the balances of the stock cards against the physical stocktake.* The stock cards state what should be in stock; the stocktake states what actually is on hand. Any discrepancy means a stock loss or gain.
- *Fast and slow moving lines of stock can be identified so that stock can be rotated or the stock mix adjusted.* By examining the frequency of sales recorded in the Out column of each stock card, the owner can identify which lines are selling well (or not so well). Stock lines can then be moved (within the shop), or the stock mix (the kind and proportions of stock on hand) can be adjusted to stock more kinds of high-selling stock (and less of the stock that is not selling).

REVIEW QUESTIONS 8.12

- 1 **Explain** the operation of the perpetual system of stock recording.
- 2 **Explain** the benefits of the perpetual system of stock recording.

perpetual system of stock recording
recording stock transactions in stock cards, then conducting a physical stocktake at the end of the Reporting Period to verify the balances of those stock cards

WHERE HAVE WE BEEN?

- Stock is defined as goods held by a trading firm for the purpose of resale.
- Stock is of paramount importance to a trading firm, as it is its main source of revenue, and one of its most significant assets.
- The Stock Control account summarises all stock transactions; stock cards detail individual transactions affecting each line of stock.
- First In, First Out (FIFO) assumes that stock that is purchased first will be sold first.
- Stock cards are used to determine the cost price of sales (the Cost of Sales), as the source documents will only show the selling price.
- A physical stocktake is conducted at the end of the Reporting Period to verify the balances in the stock cards and, in the process, detect any stock losses or gains.
- The Income Statement reports for stock by identifying both Gross Profit and adjusted Gross Profit.

EXERCISES

EXERCISE 8.1



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STOCK CARDS: CONSTANT COST PRICES

Mark's Mattresses commenced October 2015 with the following stock for Super Soft mattresses:

No. of units	Cost	Total
60	\$130	\$7 800

During that month the following transactions took place:

Oct.	4	Purchased 25 mattresses at \$130 (plus \$13 GST) each (Chq. 567)
	6	Sold 20 mattresses for \$200 (plus \$20 GST) each (Rec. 62)
	12	Purchased 30 mattresses at \$130 (plus GST) each (Chq. 577)
	18	Sold 40 mattresses for \$200 (plus GST) each (Rec. 64)
	20	Purchased 20 mattresses at \$143 (including \$13 GST) each (Chq. 580)
	31	Sold 30 mattresses for \$220 (including GST) each (Rec. 68)

Required

- Record** the transactions for October 2015 in the stock card for Super Soft mattresses.
- Calculate** the value of Super Soft mattresses on hand as at 31 October 2015.
- State** why your answer to part 'b' is unlikely to be the amount reported in the Balance Sheet for Mark's Mattresses as at 31 October 2015.
- Calculate** the Cost of Sales of Super Soft mattresses for October 2015.
- Explain** the impact of GST on the recording of transactions in the stock cards.

EXERCISE 8.2

FIRST IN, FIRST OUT

 page 147

Darren's Desks supplies offices and homes with solid wood desks. Darren's most popular brand is the Executive 1000. On 1 March 2015, the business had the following stock on hand:

	Quantity	Cost	Total
Executive 1000 Desk	4	\$290	\$1 160
	15	300	4 500
	10	320	3 200

During March 2015, Darren's Desks sold 18 desks for \$500 (plus \$50 GST) each.

Required

- Calculate** the Cost of Sales of Executive 1000 desks for March 2015 using FIFO.
- Referring to your answer to part 'a', **explain** the application of the FIFO method of stock valuation.
- Calculate** Gross Profit on Executive 1000 desks for March 2015.
- Calculate** the value of Executive 1000 desks on hand as at 31 March 2015.

EXERCISE 8.3

STOCK CARDS: CHANGING COST PRICES

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Casey's Cabinets commenced May 2015 with the following stock of glass-fronted cabinets:

No. of units	Cost	Total
40	\$240	\$9 600

During May 2015 the following transactions took place:

May	2	Purchased 20 cabinets for \$240 (plus \$24 GST) each (Inv. 745)
	4	Sold 35 cabinets at a selling price of \$500 (plus \$50 GST) each (Rec. 76)
	7	Casey took from stock 2 cabinets to give to her niece (Memo 34)
	19	Purchased 25 cabinets at \$250 (plus GST) each (Inv. 758)
	24	Purchased 30 cabinets at \$286 (including GST) each (Inv. 786)
	31	Sold 15 cabinets at a selling price of \$550 (including GST) (Rec. 86)

Required

- Record** the transactions for May 2015 in the stock card for glass-fronted cabinets.
- Show** the General Journal entries necessary to record Memo 34.
- Show** how Invoice 758 would be recorded in the Sales Journal.
- Calculate** the value of glass-fronted cabinets on hand as at 31 May 2015.
- Calculate** the Cost of Sales of glass-fronted cabinets for May 2015.
- Explain** how the FIFO method of stock valuation can overstate the value of stock on hand.

EXERCISE 8.4

STOCK CARDS: CHANGING COST PRICES

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On 1 January 2015, Eclipse Trading had \$62 000 worth of picture frames on hand. This was made up of 800 frames at \$40 and 600 frames at \$50. (The frames valued at \$40 each had been purchased first.)

During January 2015 the following transactions occurred:

Jan.	3	Purchased 100 frames at \$50 (plus GST of \$5) each (Ch. 243)
	8	Sold 900 frames at \$100 (plus GST of \$10) each (Inv. 44)
	12	Sold 400 frames at \$110 (including GST of \$10) each (Rec. 68)
	16	Took 10 frames from stock to be used in a display at the local shopping centre (Memo 14)
	20	Purchased 200 frames at \$60 (plus GST) each (Inv. A10)
	22	Sold 300 frames at \$110 (including GST) each (Inv. 49)
	31	Purchased 250 frames at \$77 (including GST) each (Inv. 990)

Required

- Record** the transactions for January 2015 in the stock card for frames.
- Show** how Receipt 68 would be recorded in the Cash Receipts Journal.
- Show** the General Journal entries necessary to record Memo 14.
- Calculate** the Cost of Sales for frames for January 2015.
- Calculate** Gross Profit on frames for January 2015.
- Explain** the impact of FIFO on Cost of Sales and Net Profit in times of rising prices.

EXERCISE 8.5 FIFO AND STOCK LOSS

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FP Electrical specialises in the sale of dishwashers for small restaurants. Its most popular line of stock is the FP 2000. A stock card for the dishwasher is maintained under the FIFO assumption. On 1 January 2015, the firm had the following stock on hand:

	Quantity	Cost price	Total
FP 2000 dishwashers	6	\$600	\$3 600
	15	620	9 300
	3	650	1 950

During January 2015, no dishwashers were purchased, but 10 units of the FP 2000 model were sold. A stocktake on 31 January 2015 showed a stock loss of one dishwasher (Memo 37).

Required

- Explain** the role of stock cards in an accounting system.
- Referring to one qualitative characteristic, **explain** the role of a physical stocktake.
- Apart from theft, **suggest** two possible reasons for the stock loss of one dishwasher.
- Show** the General Journal entries necessary to record Memo 37.
- Explain** the effect of the stock loss on the Balance Sheet of FP Electrical as at 31 January 2015.

EXERCISE 8.6 STOCK CARDS AND STOCK LOSSES/GAINS

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On 1 March 2015, Clinnick Music had on hand the following stock of MP3 players:

Quantity	Cost	Total
14	\$80	\$1 120
7	90	630

During March 2015 the following transactions took place:

March	8	3 players were taken home by the owner (Memo 4)
	12	Sold 12 players at \$176 (including GST) each (Rec. 555–561)
	19	Purchased 20 players at \$80 (plus GST) each (Inv. 76)
	22	Sold 8 players at \$160 (plus GST) each (Rec. 564–566)
	28	Purchased 15 players at \$99 (including GST) each (Chq. 880)
	30	Sold 14 players at \$176 (including GST) each (Inv. 43)

Required

- Record** the transactions for March 2015 in the stock card for MP3 players.
- A physical stocktake on 31 March 2015 revealed that 17 MP3 players were on hand (Memo 5). **Calculate** the value of stock loss or gain on MP3 players for March 2015.
- Record** the stock loss or gain in the stock card for MP3 players.
- Show** the General Journal entries necessary to record the stock loss or gain on MP3 players.
- Calculate** Gross Profit and Adjusted Gross Profit on MP3 players for March 2015.
- Explain** the effect on owner's equity as at 31 March 2015 if Memo 4 had **not** been recorded.

EXERCISE 8.7



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STOCK CARDS AND STOCK LOSSES/GAINS

During October 2015, Bayside Sound had the following transactions regarding stereo system #260:

Oct.	1	Balance on hand – 4 systems at \$600 each
	4	Purchased 7 systems at \$650 (plus GST) each (Inv. D34)
	10	Sold 5 systems for \$990 (including GST) each (Rec. 87)
	14	Sold 2 systems for \$900 (plus GST) each (Inv. B101)
	20	Purchased 5 systems at \$770 (including GST) each (Inv. D45)
	26	Donated 1 system to the local school fete (Memo 41)

Required

- Record** the transactions for October 2015 in the stock card for stereo #260.
- On 31 October 2015, a physical stocktake revealed nine units on hand of item #260 (Memo 42). **Suggest** two possible reasons for the difference between the stocktake and the stock card.
- Record** the stock loss or gain in the stock card for stereo #260.
- Explain** how the stock loss or gain was valued. **Identify** one accounting principle to support your answer.
- Show** the General Journal entries necessary to record the stock loss or gain on stereo #260.
- Calculate** Gross Profit and Adjusted Gross Profit for stereo #260 for October 2015.
- Explain** how Memo 41 would be reported in the Income Statement for Bayside Sound for October 2015.

EXERCISE 8.8

REPORTING FOR STOCK

Warren's Woks has provided the following Trial Balance as at 30 September 2015:

WARREN'S WOKS
Trial Balance as at 30 September 2015

Account	Debit	Credit
Bank	4 300	
Cost of Sales	40 000	
Creditors Control		9 200
GST Clearing		3 400
Debtors Control	13 100	
Drawings	3 000	
Prepaid Advertising	1 100	
Customs Duty	2 200	
Sales		80 000
Capital – Warren		59 400
Mortgage – BH Bank		90 000
Shelving	17 000	
Premises	120 000	
Advertising	4 900	
Stock Control	19 500	
Interest	600	
Wages	16 300	
Totals	\$242 000	\$242 000

Additional information:

- A physical stocktake on 30 September 2015 showed stock on hand worth \$19 000.
- The principal of the Mortgage – BH Bank is repayable at \$1 000 per month.

Required

- a **State** whether interest is a revenue or expense item for Warren's Woks for September 2015. **Justify** your answer.
- * b **Prepare** an Income Statement for Warren's Woks for September 2015.
- c Referring to your answer to part 'b', **justify** your treatment of Customs Duty.
- d **Explain** the importance of showing Gross Profit in the Income Statement of a trading firm.
- e Referring to the definitions, **explain** why stock loss is considered to be an expense.
- * f **Prepare** a Balance Sheet for Warren's Woks as at 30 September 2015.



EXERCISE 8.9

REPORTING FOR STOCK

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Pots 'n' Pans has provided the following Trial Balance as at 30 June 2015:

POTS 'N' PANS
Trial Balance as at 30 June 2015

Account	Debit	Credit
Bank		1 500
Capital – Pamela		41 000
Cartage In	1 900	
Cost of Sales	60 000	
Creditors Control		6 300
Debtors Control	4 600	
Delivery to Customers	2 500	
Drawings	5 000	
GST Clearing		500
Loan – QuickFin.		20 000
Rent	14 000	
Sales		90 000
Shop Fittings	40 000	
Stock Control	19 300	
Wages	12 000	
Totals	\$159 300	\$159 300

Additional information:

- A physical stocktake on 30 June 2015 showed a Stock Gain of \$700.
- The Loan – QuickFin is an interest only loan due for repayment on 1 July 2020.

Required

- ★ **a Prepare** an Income Statement for Pots 'n' Pans for June 2015.
- b** Referring to your answer to part 'a', **explain** your treatment of Delivery to Customers.
- c** Referring to the definitions, **explain** why a Stock Gain is considered to be revenue.
- ★ **d Prepare** a Balance Sheet for Pots 'n' Pans as at 30 June 2015.
- e State** one reason why the Drawings figure may be considered to be too high.

EXERCISE 8.10 INTERPRETING STOCK CARDS

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Michael Conlon owns The Good Oil, which imports olive oil from Sicily and sells it to retail stores throughout Melbourne. All stock is sold at a 50% mark-up.

The stock card for Virgin Olive Oil for November 2015 is shown below:

STOCK CARD

Stock item: Virgin Olive Oil		Location: Aisle 17								
Stock code: VO01		Supplier: Familia Oil Co.								
Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Nov. 1	Balance							50	30	1 500
9	Inv. L63				40	30	1 200	10	30	300
13	Inv. X70	50	40	2 000				10	30	300
								50	40	2 000
16	Memo 63				4	30	120	6	30	180
								50	40	2 000
22	Rec. 19				6	30	180			
					24	40	960	26	40	1 040
30	Memo 64				3	40	120	23	40	920

Required

- Describe** the transaction on 9 November 2015.
- Identify** the special journal in which the transaction on 13 November 2015 would be recorded. **Justify** your answer.
- Suggest** two possible reasons for the transaction on 16 November 2015.
- Record** the transaction on 22 November 2015 in the appropriate journal.
- The stock manager sent Memo 64 after the stocktake was completed. **Show** the General Journal entries necessary to record the transaction on 30 November 2015.
- Calculate** Cost of Sales for Virgin Olive Oil for November 2015.
- Referring to your answer to part 'f', **state** two reasons why this may **not** be the figure reported as Cost of Goods Sold for November 2015.

EXERCISE 8.11 SOURCE DOCUMENTS AND STOCK CARDS



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Hugh Glow owns Glare, a firm that sells light fittings and bedside lamps from a small shop in the city. On 1 February 2015, the firm had the following stock of bedside lamps on hand:


Quantity	Cost	Total
4	\$40	\$160
7	50	350

The following transactions occurred during February 2015:


DOCUMENT A

 	TAX INVOICE ABN: 45 478 834 121 2a Buckley St Collingwood VIC 3066		Invoice: 519 ORIGINAL Terms: 10/14, n/30	
	Charge to: Glare Block Arcade ABN: 65 980 706 511			
Date	Details	Qty	Unit Price \$	Total \$
Feb. 2	Bedside lamps	20	50	1 000
	GST			100
	Total		\$	1 100

DOCUMENT B

	TAX INVOICE ABN: 65 980 706 511 Block Arcade Melbourne VIC 3000		Invoice: 70 DUPLICATE Terms: 5/7, n/30	
	Charge to: The Hilton Country Inn ABN: 66 009 963 451			
Date	Details	Qty	Unit Price \$	Total \$
Feb. 12	Bedside lamps	10	66	660
	Total		\$	660
	Includes GST of \$60			

DOCUMENT C

	ABN: 65 980 706 511 Block Arcade Melbourne VIC 3000		Order form # G35 DUPLICATE	
	Charge to: Bright Lights 2a Buckley Street, Collingwood VIC 3066			
Please supply the following:				
Date	Details	Quantity		
Feb. 23	Bedside lamps	30		
Please deliver within 5 working days.				

DOCUMENT D

**Required**

- Referring to one qualitative characteristic, **explain** the role of source documents in the accounting process.
- Record** the relevant transactions in the stock card for bedside lamps.
- Explain** your treatment of Document C.
- Record** the relevant transactions in the appropriate special journals of Glare.
- Explain** the effect of Document A on the Balance Sheet of Glare as at 12 February 2015.
- State** the effect on the accounting equation of Glare if Document D is **not** recorded.

EXERCISE 8.12

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STOCK AND THE GENERAL LEDGER

Matthew Farewell owns Matt's Mats, a store that specialises in selling welcome mats to carpet and general stores. The business uses the perpetual inventory system and all stock movements are recorded using the FIFO method of cost assignment. Physical stocktakes are carried out at the end of each month to update the records.

The special journals for April 2015 showed the following totals:

Cash Receipts Journal

Date	Details	Rec. no.	Bank	Discount Expense	Debtors Control	Cost of Sales	Sales	Sundries	GST
	Capital Contribution							1 400	
	Totals		36 600	900	13 000	11 500	21 000	1 400	2 100

Cash Payments Journal

Date	Details	Chq. no.	Bank	Discount Revenue	Creditors Control	Stock Control	Wages	Sundries	GST
	Electricity							500	
	Totals		30 750	300	14 300	12 000	3 000	500	1 250

Sales Journal

Date	Debtor	Invoice number	Cost of Sales	Sales	GST	Debtors Control
	Totals		15 000	30 000	3 000	33 000

PURCHASES JOURNAL

Date	Creditor	Invoice number	Stock Control	GST	Creditors Control
	Totals		20 000	2 000	22 000

The stock card for plain welcome mats showed the following transactions for April 2015:

STOCK CARD

Stock item:		Plain welcome mat			Location:		Shelf 7			
Stock code:		PWM			Supplier:		Coir Industries			
Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
April 1	Balance							10	30	300
								50	40	2 000
9	Memo 71				3	30	90	7	30	210
								50	40	2 000
17	Inv. 72				7	30	210			
					8	40	320	42	40	1 680
25	Inv. B72	60	45	2 700				42	40	1 680
								60	45	2 700
30	Memo 72	3	40	120				45	40	1 800
								60	45	2 700

Additional information:

- Memo 71 related to stock withdrawn by the owner; Memo 72 related to the physical stocktake. These were the only memos written in April 2015.
- As at 1 April 2015, the Debtors Control account showed a balance of \$2 000 and the Stock Control account a balance of \$5 000.

Required

- Identify** the number of plain welcome mats detected by the physical stocktake on 30 April 2015.
 - Explain** how a physical stocktake may improve the *Reliability* of the reports of Matt's Mats.
 - Show** the General Journal entries necessary to record Memo 71 and Memo 72.
- * **d** Using all the information provided, **complete** the Stock Control and Debtors Control accounts in the General Ledger of Matt's Mats.
- * **e Prepare** an Income Statement for Matt's Mats for April 2015.
- f Explain** how the use of FIFO will affect the accounting equation in times of rising prices.

Where are we headed?

After completing this chapter, you should be able to:

- **define** revenue, expenses and profit
- **calculate** profit
- **explain** the role of accounting principles and qualitative characteristics in the determination of profit
- **explain** the reasons for 'closing' the ledger
- **record** closing entries in the General Journal and General Ledger
- **prepare** the Profit and Loss Summary account
- **record** the transfer of drawings to the Capital account in the General Journal and General Ledger
- **prepare** an Income Statement for a trading firm
- **explain** and **interpret** the information presented in an Income Statement.

..... CHAPTER 9

DETERMINING PROFIT OR LOSS

KEY TERMS

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

- closing the ledger
- Income Statement.

9.1 DETERMINING PROFIT OR LOSS

The most basic function of any small business is to earn a profit for the owner, so from time to time the accountant must calculate whether a *profit* or *loss* has been generated. The calculation of profit is simple enough; profit is what is left over after expenses are deducted from revenues.

$$\text{Profit} = \text{Revenues} - \text{Expenses}$$

In this equation, revenues are defined as inflows of economic benefits (or savings in outflows), in the form of increases in assets (or reductions in liabilities) that lead to an increase in owner's equity. Expenses are defined as outflows or consumptions of economic benefits (or reductions in inflows), in the form of decreases in assets (or increases in liabilities) that lead to a decrease in owner's equity.

Accounting principles and qualitative characteristics

The question of *when* to calculate profit depends on the needs of the owners. Remember that the Going Concern principle assumes that the life of a business is continuous or never-ending, so to follow this principle alone means that profit could never be determined. As a result, owners would not have information about the trading activities of their firm until it was too late to do anything about it. This is why the 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 the owners to decide how often they want profit to be determined. Some owners will want profit calculated every month, while others will be satisfied with seasonal or quarterly profit reports. In some industries, such as fast food, hourly breakdowns of sales and expenses may be useful. The length of the Reporting Period can be as short or as long as the owner desires; although taxation requirements mean that it must be no longer than one year.

Once the length of the Reporting Period is determined, it is important that the calculation of profit includes only revenues and expenses, and only those revenues and expenses that have occurred *during* the current Reporting Period. This ensures that the reports contain the qualitative characteristic of *Relevance*, by including only information that is useful for decision-making. If we included items other than revenues and expenses (such as drawings or loan repayments), or included revenues or expenses that occurred *outside* the current period (such as last year's wages), the reports would contain information that would *not* be useful for decision-making. The information would thus distort decision-making, and probably lead to negative consequences for the business and its owner.

REVIEW QUESTIONS 9.1

- 1 **Define** the following terms:
 - revenues
 - expenses
 - profit.
- 2 **Explain** how the Reporting Period principle assists in the calculation of profit.
- 3 **Explain** how the Reporting Period principle leads to *Relevance* in accounting reports.



9.2 CLOSING THE LEDGER

Once the length of the Reporting Period is established, profit can be calculated simply by comparing the revenues and expenses that occurred in that period. And as each revenue and expense item has its own ledger account, this information is already available in the General Ledger. Thus the profit can be calculated by transferring the balances from all these revenue and expense accounts to a special account called the Profit and Loss Summary account. This is known as **closing the ledger**.

The Profit and Loss Summary account is like a funnel that channels all revenue and expenses into one account, with a sole figure – the profit or loss for the current period – produced at the end. In the process, the revenue and expense accounts will be ‘emptied’, or reset to zero in readiness for the next period. Thus, the two key reasons for closing the ledger are to:

- transfer revenues and expenses to the Profit and Loss Summary account in order to calculate profit for the *current* Reporting Period
- reset revenue and expense accounts to zero in preparation for the *next* Reporting Period.

It is only revenue and expense accounts that are closed, because only revenues and expenses are used to determine profit. In addition, revenues and expenses exist only during a particular Reporting Period, whereas assets and liabilities (and owner’s equity, for that matter) will exist into the future. That is, Balance Sheet items involve a *future* benefit or *future* sacrifice and so should not be reset to zero, but their balances should carry forward into the next – or ‘future’ – Reporting Period.

closing the ledger
transferring balances from revenue and expense ledger accounts to the Profit and Loss Summary account so that profit can be calculated

REVIEW QUESTIONS 9.2

- 1 **Explain** the process of closing the ledger.
- 2 **Explain** two reasons for closing the ledger.
- 3 **Explain** why asset and liability accounts are **not** closed.

9.3 CLOSING ENTRIES AND THE PROFIT AND LOSS SUMMARY ACCOUNT

Closing revenue accounts

As accounts that increase owner’s equity, revenue accounts usually have a credit balance. In order to transfer balances from these accounts, the **revenue accounts** must be *debited* (to reduce the account to zero), with a corresponding credit to the **Profit and Loss Summary** account. This entry is first recorded in the General Journal, then posted to the General Ledger accounts.

EXAMPLE

Pulse Music supplied the following Trial Balance as at 30 September 2015:

PULSE MUSIC SHOP
Trial Balance as at 30 September 2015

Account	Debit	Credit
Bank	2 300	
Stock Control	40 000	
Shop Fittings	11 000	
Debtors Control	13 000	
Creditors Control		6 000
Loan – Markos Bank		30 000
Capital – B. Pressure		25 000
Sales Revenue		34 000
Stock Gain		200
Discount Revenue		500
Cost of Sales	21 000	
Wages	5 400	
Advertising	1 300	
Discount Expense	700	
Rent Expense	1 000	
Totals	\$95 700	\$95 700

The General Journal entry to close the revenue accounts as at 30 September 2015 is shown in Figure 9.1.

Figure 9.1 General Journal: closing revenue accounts

STUDY TIP

P&L Summary is an accepted abbreviation.

General Journal

Date	Details	General Ledger		Subsidiary Ledger	
		Debit	Credit	Debit	Credit
Sept. 30	Sales Revenue	34 000			
	Stock Gain	200			
	Discount Revenue	500			
	Profit and Loss Summary		34 700		
	Closing revenue accounts to P&L Summary account				

At first it may seem odd to debit a revenue account, but remember that we are trying to *reduce* the revenue accounts; because they have a credit balance, a debit entry is necessary to reduce them to zero.

Also, note how all the revenue accounts are closed in one General Journal entry, with each individual revenue account debited, and one credit (for the total revenue figure) posted to the Profit and Loss Summary account. This entry would be posted to the General Ledger as is shown in Figure 9.2.

Figure 9.2 General Ledger: closing revenue accounts

General Ledger					
Sales (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Profit and Loss Summary	34 000	Sept. 30	Bank	19 000
				Debtors Control	15 000
		34 000			34 000

Stock Gain (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Profit and Loss Summary	200	Sept. 30	Stock Control	200
		200			200

Discount Revenue (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Profit and Loss Summary	500	Sept. 30	Creditors Control	500
		500			500

Profit and Loss Summary (OE)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Sept. 30	Revenues	34 700

All revenues have now been transferred into the Profit and Loss Summary account so that profit can be calculated for September 2015. In addition, each revenue account has now been reset to zero (it has a zero balance) in readiness for the next Reporting Period. In other words, only the revenue earned in October 2015 (the next month) will be shown in the revenue accounts at the end of the next Reporting Period; that is, 31 October.

Cross-references in the Profit and Loss Summary account

In Chapter 6, we saw that the Bank account is one of only two ledger accounts where the cross-reference may be something other than the name of a ledger account. The second is Profit and Loss Summary. In the case of the Profit and Loss Summary account above, the credit entry of \$34 700 is linked to the Sales Revenue, Discount Revenue and Stock Gain accounts. Rather than list each and every one of these account names, the cross-reference is simply *Revenues* to indicate that there are a number of revenue accounts linked to this total revenue figure.

Closing expense accounts

The same principle applies when closing expense accounts: all expense accounts are closed using one General Journal entry, with the total expenses figure posted to the Profit and Loss Summary account. Using the same information supplied in the Trial Balance of Pulse Music as at 30 September 2015, the General Journal would appear as is shown in Figure 9.3:

STUDY TIP

P&L Summary is a temporary OE account: it is not reported anywhere.

Figure 9.3 General Journal: closing expense accounts

General Journal					
Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Sept. 30	Profit and Loss Summary	29 400			
	Cost of Sales		21 000		
	Wages		5 400		
	Advertising		1 300		
	Discount Expense		700		
	Rent Expense		1 000		
	Closing expense accounts to P&L Summary account				

This entry would be posted to the General Ledger as is shown in Figure 9.4.

Figure 9.4 General Ledger: closing expense accounts

General Ledger					
Cost of Sales (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Stock Control	12 000	Sept. 30	Profit and Loss Summary	21 000
	Stock Control	9 000			
		21 000			21 000

Wages (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Bank	5 400	Sept. 30	Profit and Loss Summary	5 400
		5 400			5 400

Advertising (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Bank	800	Sept. 30	Profit and Loss Summary	1 300
	Stock Control	500			
		1 300			1 300

Discount Expense (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Debtors Control	700	Sept. 30	Profit and Loss Summary	700
		700			700

Rent Expense (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Bank	1 000	Sept. 30	Profit and Loss Summary	1 000
		1 000			1 000

Profit and Loss Summary (OE)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Expenses	29 400	Sept. 30	Revenues	34 700

All expenses have now been transferred into the Profit and Loss Summary account so that profit can be calculated for the *current* Reporting Period (September 2015). Each expense account has now been reset to zero (it has a zero balance) in readiness for the next Reporting Period; that is, October 2015.

Cross-references in the Profit and Loss Summary account

As with revenues, because there is no single *account* linked to the total expenses figure (in this case, \$29 400), the cross-reference in the Profit and Loss Summary account must be **Expenses** (in preference to listing Cost of Sales, Wages, Advertising, Discount Expense, and Rent separately).

Closing the Profit and Loss Summary account

With all revenues and expenses now transferred to the Profit and Loss Summary account, the only step remaining is to calculate profit (by deducting expenses from revenues). This profit – or loss – must be transferred to the owner's **Capital** account, leaving the **Profit and Loss Summary** account with a zero balance, ready for the next Reporting Period. Figure 9.5 shows the General Journal entries to close the Profit and Loss Summary account.

Figure 9.5 General Journal: closing the Profit and Loss Summary account**General Journal**

Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Sept. 30	Profit and Loss Summary	5 300			
	Capital – B. Pressure		5 300		
	Transfer of Net Profit from P&L Summary account to Capital account				

This would be posted to the General Ledger as is shown in Figure 9.6.

Figure 9.6 General Ledger: closing the Profit and Loss Summary account**General Ledger
Profit and Loss Summary (OE)**

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Expenses	29 400	Sept. 30	Revenues	34 700
	Capital	5 300			
		34 700			34 700

Capital – B. Pressure (OE)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Sept. 1	Balance	25 000
			30	Profit and Loss Summary	5 300

STUDY TIP

Although the \$5 300 is profit, resist the temptation to label it as 'Profit' in the Profit and Loss Summary account. There is no ledger account called 'Profit'; the name of the other ledger account is 'Capital'.

STUDY TIP

There will only ever be three entries in the Profit and Loss Summary account: Revenues, Expenses and the transfer to the Capital account (for the profit or loss).

In this case, revenues (\$34 700) are greater than expenses (\$29 400), meaning that a profit of \$5 300 has been earned. This profit represents an increase in owner's equity, and so leads to a credit to the Capital account. In the case of a loss, the Capital account would be debited to show the decrease in owner's equity, with the Profit and Loss Summary account closed with a credit entry.

The Profit and Loss Summary account opens (when the revenues and expenses are transferred *in*) and closes (when the profit or loss is transferred *out*) on the same day. The account itself lasts for only as long as it takes to post these three entries; just as a piece of scrap paper is used to make a calculation and then thrown away when the answer is known. It is never listed in an accounting report, as its function is simply to facilitate the calculation of profit.

REVIEW QUESTIONS 9.3

- 1 **Identify** the three entries that will be recorded in the Profit and Loss Summary account.
- 2 Referring to revenues and expenses, **explain** why the cross-references in the Profit and Loss Summary account are not ledger account names.
- 3 **Explain** how the Profit and Loss Summary account would be classified in the Balance Sheet. (Beware!)
- 4 **Show** the General Journal entries necessary to close:
 - revenue accounts to the Profit and Loss Summary account
 - expense accounts to the Profit and Loss Summary account
 - the Profit and Loss Summary account to the Capital account.

9.4 TRANSFERRING DRAWINGS

It is customary to record drawings by the owner in a separate ledger account so that the owner's transactions for a particular Reporting Period can be isolated. However, at the end of the Reporting Period, the balance of the Drawings account must be transferred to the Capital account so that the Capital account can reflect the net effect of all transactions with the owner. The Drawings account is transferred to the Capital account in much the same way as the Profit and Loss Summary account is closed, as is shown in Figure 9.7.

Figure 9.7 General Journal: transferring Drawings to Capital

General Journal					
Date	Details	General Ledger		Subsidiary Ledger	
		Debit	Credit	Debit	Credit
Sept. 30	Capital – B. Pressure	3 000			
	Drawings		3 000		
	Transfer of Drawings account to Capital account				

Figure 9.8 shows how the ledger accounts would appear after transferring the Drawings to Capital.

Figure 9.8 General Ledger: transferring Drawings to Capital

General Ledger					
Drawings (– OE)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Bank	2 500	Sept. 30	Capital	3 000
	Stock Control	500			
		3 000			3 000

Capital – B. Pressure (OE)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Sept. 30	Drawings	3 000	Sept. 1	Balance	25 000
			30	Profit and Loss Summary	5 300

Although the Drawings account is transferred to the Capital account, it is **not** closed through the Profit and Loss Summary account. Transactions with the owner are expressly excluded from the definitions of revenues and expenses, and must *not* be counted in the calculation of profit. To include drawings in the calculation of profit would be a direct breach of *Relevance*.

REVIEW QUESTIONS 9.4

- 1 State** one reason why transactions with the owner are recorded separately in the Drawings account (rather than directly in the Capital account).
- 2 State** one reason why the Drawings account is closed to the Capital account.
- Referring to the definition of an expense, **explain** why the Drawings account is **not** closed to the Profit and Loss Summary account.
- Referring to one qualitative characteristic, **explain** why Drawings are **not** included in the calculation of profit.
- 5 Show** the General Journal entries necessary to close the Drawings account to the Capital account.

9.5 THE INCOME STATEMENT

Having closed the ledger, the profit figure will be known in the records, but it must still be reported to the owner in an appropriate format. Knowing the Net Profit figure is all well and good, but perhaps the most obvious question for the owner to ask about profit is, 'How was the profit generated?' This question is answered by the preparation of an **Income Statement**, which details the revenues earned and expenses incurred during the period and, in the process, shows both Gross Profit and Net Profit.

Obviously the Net Profit reported in the Income Statement should be the same as the figure determined in the Profit and Loss Summary account, but the statement will show the reasons why that profit (or loss) occurred, giving the owner far more information on which to base his or her decisions. This fits with the basic function of all accounting reports: to communicate financial information that will assist the owner in making better decisions.

Income Statement
an accounting report that details the revenues earned and expenses incurred during the current Reporting Period

EXAMPLE

Bookworms is a book shop and has presented its Trial Balance as at 30 November 2015:

BOOKWORMS
Trial Balance as at 30 November 2015

Account	Debit	Credit
Advertising	1 200	
Bank		3 000
Capital – Isaac Read		8 780
Cash Sales		9 000
Cost of Sales	14 500	
Credit Sales		20 000
Creditors Control		11 000
Customs Duty	270	
Debtors Control	1 000	
Discount Expense	100	
Discount Revenue		600
Freight In	520	
Freight Out	140	
Loan – International Bank		25 000
Rent Expense	3 000	
Shop Fittings and Fixtures	12 000	
Stock Control	38 000	
Stock Loss	350	
Wages	6 300	
Totals	\$77 380	\$77 380

After all closing entries have been made for November 2015, the Profit and Loss Summary account for Bookworms would show:

Profit and Loss Summary (OE)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Nov. 30	Expenses	26 380	Nov. 30	Revenues	29 600
	Capital	3 220			
		29 600			29 600

The Income Statement must show the same Net Profit of \$3 220, but in doing so will detail all the revenues earned and expenses incurred in earning that profit. Figure 9.9 shows the Income Statement for Bookworms for November 2015:

Figure 9.9 Income Statement

BOOKWORMS		
Income Statement for November 2015		
Revenue¹	\$	\$
Cash Sales	9 000	
Credit Sales	20 000	29 000
Less Cost of Goods Sold²		
Cost of Sales	14 500	
Customs Duty	270	
Freight In	520	15 290
Gross Profit³		13 710
Less Stock Loss		350
Adjusted Gross Profit⁴		13 360
Add Other Revenues⁵		
Discount Revenue		600
		13 960
Less Other Expenses⁶		
Wages	6 300	
Advertising	1 200	
Discount Expense	100	
Freight Out	140	
Rent Expense	3 000	10 740
Net Profit⁷		3 220

STUDY TIP

Presentation matters in accounting reports; items must be reported under the correct headings for the statement to be correct.

In common with all accounting reports, this Income Statement begins by identifying *who*, *what* and *when*: the *who* referring to Bookworms (the entity for whom the report was prepared), the *what* referring to the report as an Income Statement, and the *when* referring to November 2015 (the Reporting Period covered by the report).

Note that the *when* refers not to *as at*, but rather *for*, as the information it reports is not confined to a single day, but covers a period of time; in this case, the month of November 2015.

The information in the report is presented under the following headings:

1 Revenue

This section lists only those revenues earned as a *direct result of selling stock*, namely, **Sales revenue**. In this business, the owner has requested separate figures for cash and credit sales, so they are recorded in separate ledger accounts, and reported separately in the Income Statement. In other businesses, both cash and credit sales could be combined in one ledger account (perhaps simply known as Sales) and reported as one figure.

2 Cost of Goods Sold

As explained in Chapter 8, Cost of Goods Sold is a heading referring to *all* costs incurred in getting goods into a condition and location ready for sale, with **Cost of Sales** simply one of the items that may be reported under this heading. In this case, **Customs Duty** and **Freight In** are also included as part of Cost of Goods Sold.

3 **Gross Profit**

As the difference between **Sales Revenue** and Cost of Goods Sold, Gross Profit reflects the relationship between the firm's selling and cost prices. Identifying this figure (with its own heading) allows the owner to assess the adequacy of the firm's mark-up.

4 **Adjusted Gross Profit**

Stock losses must be deducted from Gross Profit, while stock gains must be added in order to determine Adjusted Gross Profit.

5 **Other Revenues**

Any revenues other than Sales revenue are reported after the Adjusted Gross Profit in order to protect Gross Profit as a measure of the mark-up. In this example, only **Discount Revenue** is identified as Other Revenue, but interest revenue or commission revenue would also be reported here.

The figure derived by adding Other Revenue to Adjusted Gross Profit – **\$13 960** in Figure 9.9 – has no title, but it must be shown nonetheless. Leaving out this total may result in failing to account for 'Other Revenues' when Net Profit is calculated.

6 **Other Expenses**

Other Expenses refers to all expenses other than Cost of Goods Sold, including day-to-day expenses, such as **Wages, Rent, Advertising and Bad Debts**. Note that this is where **freight out** (the cost of delivery to customers) is reported, as this is incurred after the sale, whereas **Freight In** (the cost of delivery from the supplier) is incurred in the process of getting goods ready for sale, and so is part of Cost of Goods Sold.

7 **Net Profit**

This is the bottom line so frequently talked about in business circles: the overall profit or loss earned by the business in the current Reporting Period. It is calculated by deducting Other Expenses from the previous total (in this case, \$13 960 less \$10 740) or by deducting total expenses from total revenues. If the closing entries have been recorded correctly, and the Income Statement prepared correctly, this Net Profit figure should be identical to the figure calculated in the Profit and Loss Summary account (**\$3 220**).

REVIEW QUESTIONS 9.5

- 1 **Explain** why it is necessary to prepare an Income Statement even when the profit figure is known.
- 2 **Explain** the relationship between the Profit and Loss Summary account and the Income Statement.
- 3 **Explain** why the Income Statement is titled *for* the period rather than *as at* a particular date.
- 4 **Explain** the difference between Cost of Sales and Cost of Goods Sold.
- 5 **Identify** two revenues that would be classified as 'Other Revenue'.



9.6 USES OF THE INCOME STATEMENT

As was stated earlier, an Income Statement must be prepared even when the profit is already known in order to provide more information for the business owner. After all, closing the ledger will tell us the Net Profit figure, and even the total revenue and expense figures, but not the individual amounts from which these figures were derived. By detailing the individual revenue and expense items, and identifying Gross and Net Profit, the report is more useful as a decision-making tool.

The specific purposes of preparing an Income Statement are:

- *To aid decision-making about the firm's trading operations.* Specifically, the Income Statement allows the owner to assess:
 - the firm's ability to earn revenue so decisions can be made about the types of stock that are held for sale, the level and/or type of advertising, or the level of selling prices
 - the adequacy of the firm's mark-up so decisions can be made about adjusting selling prices or controlling cost prices
 - the firm's ability to control its expenses so decisions can be made about managing staff wages, protecting stock from stock loss, or operating more efficiently to control operating costs.
- *To assess the firm's performance in meeting its sales and expense targets.* The Income Statement can be compared against budgeted, or expected, performance, as shown in the Budgeted Income Statement, which would have been prepared in advance. This comparison will highlight where performance was better or worse than expected. Corrective action can then be taken. (This will be explored in more detail in Chapter 17.)
- *To assist in planning for future trading activities.* By providing a basis for the next budget, the Income Statement will aid in the setting of targets for the future. This may include stock levels, staffing requirements or advertising expenditure. (This will be explored in more detail in Chapter 17.)
- *To facilitate the calculation of financial indicators for analysis and interpretation.* These indicators can be used not only to uncover what has happened, but to help explain why. (This will be covered in Chapter 18.)

REVIEW QUESTIONS 9.6

- 1 **Explain** the purpose of preparing an Income Statement.
- 2 **Explain** how the preparation of an Income Statement can assist decision-making.
- 3 **Explain** how the preparation of an Income Statement can assist planning for the future.

WHERE HAVE WE BEEN?

- Profit is calculated by matching revenues earned against expenses incurred in that Reporting Period.
- Closing the ledger is necessary to:
 - transfer revenue and expense amounts to calculate profit for the *current* Reporting Period
 - reset the revenue and expense accounts to zero in readiness for the *next* Reporting Period.
- Revenue and expense accounts must be closed to the Profit and Loss Summary account at the end of the Reporting Period. The Profit and Loss Summary account is then closed to the Capital account.
- The Drawings account is transferred to the Capital account at the end of the Reporting Period.
- The Income Statement aids decision-making by detailing the revenues earned and expenses incurred during the Reporting Period, and in the process showing both Gross Profit and Net Profit.
- The Income Statement and Profit and Loss Summary account should both calculate the same Net Profit figure.

EXERCISES

EXERCISE 9.1 CLOSING THE LEDGER

 page 168

Rugged Rugs has provided the following ledger accounts for August 2015:

General Ledger Stock Control (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 1	Balance	10 000	Aug. 31	Cost of Sales	17 000
31	Creditors Control	34 000		Cost of Sales	15 000
				Advertising	400
				Stock Loss	500

Sales (R)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Aug. 31	Bank	34 000
				Debtors Control	28 000

Interest Revenue (R)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Aug. 31	Bank	1 500

Cost of Sales (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 31	Stock Control	17 000			
	Stock Control	15 000			

Wages (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 31	Bank	12 000			

Rent Expense (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 31	Bank	9 000			

Advertising (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 31	Bank	8 000			
	Stock Control	400			

Stock Loss (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 31	Stock Control	500			

Required

- Explain** why the Stock Control account is balanced rather than closed.
- Show** the General Journal entries necessary to close the revenue and expense accounts to the Profit and Loss Summary account (Memo 41).
- Show** the General Journal entries necessary to close the Profit and Loss Summary account to the Capital account (Memo 41).
- Post** the General Journal to the General Ledger of Rugged Rugs.

EXERCISE 9.2**CLOSING THE LEDGER**
 page 171

Jigsaw World has provided the following ledger accounts for the year ended 31 December 2015:

General Ledger**Cash Sales (R)**

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Dec. 31	Bank	50 000

Credit Sales (R)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Dec. 31	Debtors Control	30 000

Freight Inwards (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 31	Bank	1 600			

Cost of Sales (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 31	Stock Control	25 000			
	Stock Control	15 000			

Wages (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 31	Bank	30 500			

Rent Expense (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 31	Bank	8 500			

Discount Expense (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Dec. 31	Debtors Control	1 300			

Required

- a Show** the General Journal entries necessary to close the revenue and expense accounts to the Profit and Loss Summary account (Memo 13).
- b Show** the General Journal entries necessary to close the Profit and Loss Summary account to the Capital account (Memo 13).
- c Post** the General Journal to the General Ledger of Jigsaw World.
- d Calculate** Gross Profit for Jigsaw World for the year ended 31 December 2015.
- e Explain** how closing the ledger ensures *Relevance* in the financial reports.



EXERCISE 9.3

CLOSING THE LEDGER AND TRANSFERRING DRAWINGS

 page 174

On 30 June 2015, the Trial Balance of Wombat Plants showed the following:

WOMBAT PLANTS
Trial Balance as at 30 June 2015

Account	Debit	Credit
Bank	1 700	
Capital – Withered		30 900
Cost of Sales	50 000	
Creditors Control		4 000
Debtors Control	5 000	
Discount Expense	400	
Discount Revenue		500
Drawings	2 000	
GST Clearing		1 000
Loan – ANZ (repayable \$2 000 per annum)		16 000
Sales		80 000
Shop Fittings	17 000	
Stock Control	45 000	
Stock Loss	300	
Wages	11 000	
Totals	\$132 400	\$132 400

Required

- a **Show** the General Journal entries necessary to close the revenue and expense accounts to the Profit and Loss Summary account. (Narrations are **not** required.)
- b **Show** the General Journal entries necessary to close the Profit and Loss Summary account and transfer drawings to the Capital account. (Narrations are **not** required.)
- c **Show** how the Profit and Loss Summary, Capital and Drawings accounts would appear in the General Ledger after all closing and balancing entries have been made.
- d **Explain** why Drawings is **not** closed to the Profit and Loss Summary account.
- * e **Prepare** the equities side of the Balance Sheet of Wombat Plants as at 30 June 2015.

EXERCISE 9.4

INCOME STATEMENT

 page 176

On 30 June 2015, the General Journal of Frosty Fridges showed the following closing entries:

General Journal

Date	Details	General Ledger		Subsidiary Ledger	
		Debit	Credit	Debit	Credit
June 30	Sales	120 000			
	Discount Revenue	1 800			
	Profit and Loss Summary		121 800		
	Closing revenue accounts to P&L Summary account				
June 30	Profit and Loss Summary	97 800			
	Cost of Sales		60 000		
	Stock Loss		500		
	Wages		19 000		
	Advertising		3 000		
	Customs Duty		2 000		
	Discount Expense		1 300		
	Rent Expense		12 000		
	Closing expense accounts to P&L Summary account				
June 30	Profit and Loss Summary	24 000			
	Capital – B. Ding		24 000		
	Transfer of Net Profit from P&L Summary to Capital account				
June 30	Capital – B. Ding	5 600			
	Drawings		5 600		
	Transfer of Drawings to Capital account				

Required

- a **Show** how the Profit and Loss Summary and Capital accounts would appear in the General Ledger as at 30 June 2015 after all relevant accounts have been closed and balanced.
- * b **Prepare** an Income Statement for Frosty Fridges for the year ended 30 June 2015.
- c Referring to your answer to part 'b', **explain** your treatment of Customs Duty.
- d **Explain** one reason why Frosty Fridges should still prepare an Income Statement even when it knows the Net Profit for the period.
- e The owner has stated that as owner's equity increased, the firm's assets must also have increased. **State** one reason why this may be incorrect.



EXERCISE 9.5 INCOME STATEMENT

 page 178

On 31 May 2015, the Trial Balance of Rest Easy Beds showed the following:

REST EASY BEDS
Trial Balance as at 31 May 2015

Account	Debit	Credit
Advertising	230	
Bank		3 410
Buying Expenses	900	
Capital – J. Snooze		25 190
Cost of Sales	8 380	
Creditors Control		3 000
Debtors Control	1 000	
Discount Revenue		250
Drawings	1 500	
GST Clearing		350
Loan – Bank of Hope (repayable \$5 000 p.a.)		15 000
Office Furniture	7 650	
Prepaid Rent	1 920	
Rent Expense	1 800	
Sales		12 000
Shop Fittings	20 000	
Stock Control	14 000	
Stock Gain		300
Wages	2 120	
Totals	\$59 500	\$59 500

Required

- a **Show** the General Journal entries necessary to close the revenue and expense accounts to the Profit and Loss Summary account. (Narrations are **not** required.)
- b **Show** the General Journal entries necessary to close the Profit and Loss Summary account and transfer Drawings to the Capital account. (Narrations are **not** required.)
- c **Show** how the Profit and Loss Summary, Drawings and Capital accounts would appear in the General Ledger of Rest Easy Beds after all closing and balancing entries have been made.
- * d **Prepare** an Income Statement for Rest Easy Beds for May 2015.
- e **Explain** why the owner should be concerned about the firm's ability to control Cost of Goods Sold.
- f **Suggest** one action the owner might take to improve Net Profit.
- * g **Prepare** a classified Balance Sheet for Rest Easy Beds as at 31 May 2015.

EXERCISE 9.6

INCOME STATEMENT

EduToys provided the following Trial Balance as at 31 December 2015:

EDUTOYS
Trial Balance as at 31 December 2015

Account	Debit	Credit
Advertising	8 000	
Bank	2 500	
Capital – A.Teacher		69 430
Cost of Sales	62 000	
Creditors Control		13 000
Debtors Control	15 000	
Discount Expense	600	
Discount Revenue		700
Drawings	4 000	
Electricity	3 400	
GST Clearing		270
Import Duties	1 200	
Loan – ANZ Bank (repayable \$500 per month)		84 000
Premises	97 000	
Sales		99 000
Shop Fittings	36 000	
Stock Control	14 800	
Stock Loss	900	
Wages	21 000	
Totals	\$266 400	\$266 400

Required

- a Referring to one accounting principle, **explain** why the ledger must be closed.
- b **Show** how the Profit and Loss Summary and Capital accounts would appear in the General Ledger after all closing and balancing entries have been made.
- * c **Prepare** an Income Statement for EduToys for the year ended 31 December 2015.
- d **Suggest** two actions the owner could take to improve Adjusted Gross Profit without affecting Gross Profit.
- e **Explain** how reducing the discount offered to debtors might cause Net Profit to decrease.
- * f **Prepare** a classified Balance Sheet for EduToys as at 31 December 2015.



EXERCISE 9.7

INCOME STATEMENT

 page 184

The Trial Balance for Precious Paintings as at 31 October 2015 showed the following:

PRECIOUS PAINTINGS
Trial Balance as at 31 October 2015

Account	Debit	Credit
Advertising	450	
Capital – Lovegood		14 200
Cash at Bank	3 520	
Cost of Sales	9 600	
Creditors Control		6 350
Debtors Control	1 000	
Delivery Vehicle	20 000	
Discount Expense	70	
Discount Revenue		50
Drawings	1 500	
Freight In	610	
Freight Out	800	
GST Clearing		350
Loan – Commonwealth Bank (repayable \$5 000 p.a.)		20 000
Prepaid Rent	1 800	
Rent Expense	2 400	
Sales		17 500
Stock Control	14 000	
Stock Loss	400	
Wages	2 300	
Totals	\$58 450	\$58 450

Additional information:

- Precious Paintings employs one full-time shop assistant.

Required

- Show** the General Journal entries necessary to close the revenue and expense accounts to the Profit and Loss Summary account. (Narrations are **not** required.)
 - Show** the General Journal entries necessary to close the Profit and Loss Summary account and transfer Drawings to the Capital account. (Narrations are **not** required.)
- * **c Prepare** an Income Statement for Precious Paintings for October 2015.
- d** Referring to your answer to part 'c', **explain** your treatment of Freight Out.
- e State** two reasons why the owner may be disappointed with Net Profit for October 2015.
- f Explain** how an increase in Other Expenses might lead to an increase in Net Profit.
- * **g Prepare** a classified Balance Sheet for Precious Paintings as at 31 October 2015.

EXERCISE 9.8

INCOME STATEMENT

On 31 July 2015, the Trial Balance of Hot Stuff Ovens showed the following:

HOT STUFF OVENS
Trial Balance as at 31 July 2015

Account	Debit	Credit
Advertising	6 800	
Bank		1 200
Capital – Phyre		74 500
Cost of Sales	88 500	
Creditors Control		44 000
Debtors Control	25 000	
Discount Expense	750	
Discount Revenue		160
Drawings	1 700	
GST Clearing		390
Import Duties	1 500	
Mortgage – ANQ Bank (repayable \$12 000 p.a.)		95 000
Premises	120 000	
Prepaid Rent	12 000	
Rent Expense	6 000	
Sales		150 000
Shop Fittings	15 000	
Stock Control	65 000	
Wages	23 000	
Totals	\$365 250	\$365 250

Additional information:

- Drawings consisted of \$1 500 cash and \$200 stock.
- \$1 000 of wages was incorrectly debited to the Advertising account (Memo 65).
- A physical stocktake determined there was \$66 300 of stock on hand (Memo 66).

Required

- Show** the General Journal entries necessary to record the correcting entry and the stock loss or gain.
 - Show** the General Journal entries necessary to close the revenue and expense accounts. (Narrations are **not** required.)
 - Show** how the Profit and Loss Summary, Drawings and Capital accounts would appear in the General Ledger as at 31 July 2015 after all relevant closing and balancing entries have been made.
- * **d Prepare** an Income Statement for Hot Stuff Ovens for the year ended 31 July 2015.
- * **e Explain** one use of the Income Statement.
- * **f Prepare** a classified Balance Sheet for Hot Stuff Ovens as at 31 July 2015.

Where are we headed?

After completing this chapter, you should be able to:

- **define** revenue, expenses and profit
- **explain** how the Reporting Period principle and the qualitative characteristic of *Relevance* affect the calculation of profit
- **define** the term 'balance day adjustment'
- **explain** the purpose of a balance day adjustment
- **identify** and **record** expenses paid in advance in the Cash Payments Journal and General Ledger
- **record** balance day adjustments for prepaid and accrued expenses in the General Journal and General Ledger
- **state** the effect of balance day adjustments on the accounting equation
- **identify** and **record** the payment of an accrued expense in a subsequent period
- **distinguish** between an accrued expense and a sundry creditor
- **report** prepaid and accrued expenses in the Balance Sheet
- **explain** the purpose of a Post-adjustment Trial Balance
- **prepare** a Post-adjustment Trial Balance.

CHAPTER 10

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
- Pre-adjustment Trial Balance
- Post-adjustment Trial Balance.

10.1 THE NEED FOR BALANCE DAY ADJUSTMENTS

Chapter 9 introduced the idea of closing the ledger by transferring the balances of all revenue and expense accounts into a new account, the Profit and Loss Summary account, in order to calculate profit. Remember the definitions of revenues and expenses outlined in Chapter 1:

Revenues inflows of economic benefits (or savings in outflows), in the form of increases in assets or reductions in liabilities that lead to an increase in owner's equity

Expenses outflows or consumptions of economic benefits (or reductions in inflows), in the form of decreases in assets or increases in liabilities that lead to a decrease in owner's equity

STUDY TIP

Expenses should be recognised when they are incurred. This is the same as saying they should be recognised when they are 'used up' or consumed.

Note that the definition of revenues does not refer to 'cash received', but rather 'inflows of economic benefits'. The benefit *may* be cash, but does not have to be; it could be debtors (for a credit sale) or some other asset, such as stock (for a stock gain). In the case of discount revenue, the benefit is actually a reduction in an outflow, where no cash flow is involved at all. This means that revenue should be recognised not when the cash is received, but when the *economic benefit* is received; that is, when the revenue is *earned*, not when it is received.

A similar principle applies to expenses: expenses should be recognised when the economic benefit is *consumed* (or incurred), not when the cash is paid.

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; that is:

$$\text{Profit} = \text{Revenue earned in the current Reporting Period} \\ \text{less} \\ \text{Expenses incurred in the current Reporting Period}$$

This is the essence of **accrual accounting**.

accrual accounting

calculating profit by comparing revenues earned against expenses incurred in a particular Reporting Period

Adjusting before closing

The assumption we made before closing the ledger (in Chapter 9) was that revenue accounts already showed the amount *earned* and expense accounts already showed the amount *incurred*. Thus, when we calculated profit, we assumed it would be the correct figure.

Unfortunately, this is not always the case. If at balance day (the end of the Reporting Period) there is revenue that has been *earned* but not yet *received* (such as interest revenue still owing to the business), this may not appear in the revenue accounts. Similarly, if there are expenses that have been *incurred* but not yet *paid* (such as electricity that has been consumed but will not be paid for until the next period), this may not appear in the expense accounts. As such, although closing the ledger calculation would allow for the calculation of profit, that profit would be inaccurate.

In each situation such as these, a **balance day adjustment (BDA)** is necessary to change (or adjust) the ledger accounts so that the revenue accounts include **all revenues earned** and the expense accounts include **all expenses incurred** in the current Reporting Period. This will ensure that closing the ledger will not only allow for the calculation of profit, but also that the profit figure will be accurate.

balance day adjustment (BDA)

a change made to a revenue or expense account on balance day so that revenue accounts show revenues earned and expense accounts show expenses incurred in a particular Reporting Period

The purpose of a balance day adjustment is to ensure that profit can be calculated accurately, by comparing revenues earned against expenses incurred in the current Reporting Period.

This application of the Reporting Period principle leads to *Relevance* in the accounting reports by ensuring that the Income Statement (and, for that matter, the Balance Sheet) includes all information that is useful for decision-making, while excluding information that is not. Information that would not be useful includes revenue or expenses that were earned or incurred *outside* the current Reporting Period.

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 8)
- prepaid expenses
- accrued expenses
- depreciation (to be covered in Chapter 11).

These balance day adjustments must be recorded in the General Journal before being posted to the General Ledger accounts.

STUDY TIP

Adjusting entries must be made before closing entries. Just remember ABC: Adjust Before Closing.

STUDY TIP

Other adjustments (relating to revenue accounts) will not be examined until second semester and so are covered in later chapters.

REVIEW QUESTIONS 10.1

- 1 **Explain** why profit may be inaccurate if balance day adjustments are **not** recorded.
- 2 **Explain** the purpose of a balance day adjustment.
- 3 **Explain** how balance day adjustments ensure *Relevance* in the accounting reports.
- 4 **List** the four balance day adjustments that relate to expenses.

10.2 PREPAID EXPENSES

Frequently, an amount will be paid for an item that is not consumed at the time the payment is made. For instance, when a business pays for rent or insurance they usually pay in advance, covering the next month or even the forthcoming year. The same could be said for supplies and materials such as office supplies, which are purchased in bulk, but are not used immediately. These are common payments, but at the time they are paid should we consider them to be expenses?

Frequently, amounts are paid for items such as rent, insurance and office supplies that are not used immediately. Should these be considered expenses or assets?



Consider the definition of an expense. It refers to a *consumption* or *outflow* of economic benefits. Yet at the time of the payment, how much of the rent, insurance or office supplies has been consumed? The answer is none. In fact, each will not be consumed until some time *in the future*. Therefore, they are not *consumptions* of economic benefits, but rather *future* economic benefits. In other words, they are assets.

This means that when an expense is paid in advance, it should be properly recorded as a current asset called **prepaid expense** (in this case, Prepaid Rent, Prepaid Insurance or Prepaid Office Supplies).

prepaid expense

an expense paid in advance but yet to be consumed

Recording expenses paid in advance

EXAMPLE

On 1 October 2015, Wendell Windows paid \$1 200 (plus \$120 GST) for insurance for the next 12 months (Ch. 63).

This payment would be recorded in the Cash Payments Journal as is shown in Figure 10.1.

Figure 10.1 Cash Payments Journal: prepaid expense

Cash Payments Journal

Date	Details	Chq. no.	Bank	Discount Revenue	Creditors Control	Wages	Drawings	Sundries	GST
Oct. 1	Prepaid Insurance	63	1 320					1 200	120
	Totals		16 020	400	5 000	8 000	2 100	1 200	120

Posting this to the General Ledger would show.

General Ledger

Bank (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 1	Balance	35 000	Oct. 31	Cash payments	16 020

Prepaid Insurance (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Bank	1 200			

GST Clearing (A/L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Bank	120	Oct. 1	Balance	400

The payment will be recorded in the Cash Payments Journal on the day it is paid (1 October 2015), but the journal will be posted to the General Ledger only at the end of the month (31 October 2015).

Remember that this payment will be only one of a number of payments during the month, so the figure for *total* cash payments (**\$16 020**) will be credited to the **Bank** account.

Of the **\$1 320** paid, **\$120** was GST, which is debited to the **GST Clearing** account to reduce the liability to the ATO. This means that only **\$1 200** – the amount relating to the insurance itself – is debited to **Prepaid Insurance** as the value of the current asset.

Effect on the accounting equation

As a result of the *payment* of prepaid insurance:

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

At this point, there is no expense amount recorded in the General Ledger accounts; it is all recorded as a current asset.

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 consumed; it is all a *future* economic benefit. However, by the time balance day arrives (the day on which the ledger is closed and reports are prepared) at least part of this prepaid expense is likely to have been *consumed*. In other words, part of the asset has become an expense.

It is therefore necessary to adjust the ledger accounts so that:

- the amount **consumed** in the current Reporting Period is transferred to an expense account
- the Prepaid Expense account only shows the amount remaining; that is, unused, or to be used up in a future Reporting Period.

Let's refer back to our earlier example, when insurance was paid on 1 October 2015, but paid in advance for the next 12 months. At 31 October 2015:

- How much insurance has been **consumed** (during October 2015)?
- How much prepaid insurance is left unused (at the end of October 2015)?

If the **\$1 200** payment made on 1 October 2015 covers 12 months:

$$\frac{\$1\,200 \text{ prepaid insurance}}{12 \text{ months}} = \$100 \text{ insurance per month}$$

The prepaid insurance is consumed at **\$100 per month**, so by balance day of 31 October 2015, one month's worth (**\$100**) of prepaid insurance has been **consumed**.

The balance day adjustment to record the insurance consumed is shown in the General Journal entry in Figure 10.2:

STUDY TIP

Calculate the amount **consumed/used up/incurred**. This is the amount to use in the balance day adjustment.

Figure 10.2 General Journal: BDA for consumption of prepaid expense

General Journal					
Date	Details	General Ledger		Subsidiary Ledger	
		Debit	Credit	Debit	Credit
Oct. 31	Insurance Expense	100			
	Prepaid Insurance		100		
	Adjusting entry to record one month insurance incurred (Memo 9)				

This entry debits the **Insurance Expense** account to recognise the expense incurred in the current Reporting Period, while the **Prepaid Insurance** account is credited to reduce the current asset by the amount consumed. The source document is Memo 9, reflecting the fact that this information has come from within the business.

After posting, this entry would appear in the General Ledger as is shown in Figure 10.3.

Figure 10.3 General Ledger: BDA for consumption of prepaid expense

General Ledger					
Prepaid Insurance (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Bank	1 200	Oct. 31	Insurance Expense	100
	1 100				

Insurance Expense (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Prepaid Insurance	100			

Note that the General Journal entry to record the balance day adjustment (in Figure 10.2) uses the amount **consumed** in the current Reporting Period (\$100). The balance of \$1 100 left in the Prepaid Insurance account (\$1 200 – \$100) represents the amount *unused*, or the amount that will be consumed in a *future* Reporting Period. This is the new current asset balance.

Effect on the accounting equation

As a result of the adjustment for the consumption of Prepaid Insurance:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Prepaid Insurance)	100
Liabilities	No effect	
Owner's Equity	Decrease (increase Insurance Expense decreases Net Profit)	100

This adjustment does not change Bank, nor does it affect GST Clearing, but it decreases profit, and decreases assets in the Balance Sheet.

STUDY TIP

When adjusting a prepaid expense, 'take away' the amount incurred (from the current asset).

Closing the ledger

Now that the ledger accounts have been adjusted – so that the expense account shows the amount **incurred** in the current Reporting Period – the expense account is ready to be closed to the Profit and Loss Summary account. Remember that all expense accounts are closed in one General Journal entry, with each expense account credited, and one debit to the Profit and Loss Summary account.

After it has been closed, the Insurance Expense account would show:

General Ledger
Insurance Expense (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Prepaid Insurance	100	Oct. 31	Profit and Loss Summary	100
		100			100

REVIEW QUESTIONS 10.2

- 1 Explain** why a prepaid expense is classified as a current asset.
- 2 State** the effect on the accounting equation of a payment for a prepaid expense.
- 3 Show** the General Journal entries necessary to record the balance day adjustment for the consumption of a prepaid expense.
- 4 State** the effect on the accounting equation of the balance day adjustment for the consumption of a prepaid expense.

10.3 ACCRUED EXPENSES

Prepaid expenses are paid *before* they are consumed, but it is also likely that some expenses will be paid *after* they are consumed. For example, at balance day there may be wages owing to employees for work that has already been done, or electricity that has been consumed but not paid for. Because this amount has already been **incurred** (or, in the language of the definition, *consumed*, in the current Reporting Period) it must be added to the expense amount. In addition, the amount owing should also be recorded as a liability. The amount still 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, expense accounts will only show the amounts paid. For instance, the Wages account will show the amount paid to employees, the Interest Expense account will show interest paid to the bank, and Electricity will show the amount paid for electricity. For instance, at balance day (31 October 2015) the Electricity account may show:

General Ledger
Electricity (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Bank	1 500			

The \$1 500 currently shown in the Electricity account represents the amount actually paid for electricity during October 2015. But is this the total expense incurred in the period?

Before the reports can be prepared, the accountant must ascertain whether any additional amounts have been consumed, but not yet paid. If there are, these must be added to the expense accounts before the closing entries are made. It is therefore necessary to adjust the ledger accounts so that:

- the **extra amount consumed** in the current Reporting Period is added to the expense account
- a current liability account – Accrued Expense – is created to show the **amount owing/unpaid**, which will be paid in the next Reporting Period.

EXAMPLE

At 31 October 2015, \$300 electricity was owing (Memo 15).

The balance day adjustment to record the accrued electricity is shown in the General Journal entry in Figure 10.4:

Figure 10.4 General Journal: BDA for accrued expense

General Journal					
Date	Details	General Ledger		Subsidiary Ledger	
		Debit \$	Credit \$	Debit \$	Credit \$
Oct. 31	Electricity Expense	300			
	Accrued Electricity		300		
	Adjusting entry to record electricity consumed but not yet paid (Memo 15)				

This entry debits the **Electricity Expense** account to recognise the extra amount incurred in the current Reporting Period. At the same time, the **Accrued Electricity** account is credited to recognise the liability: the obligation to the electricity supplier.

For an accrued expense, the amount used in the adjustment (\$300) is *not* the total expense for the period. Rather, it is simply the extra amount: the amount that has been **consumed but not yet paid**. It is added to the amount paid to calculate the **total expense incurred** for the Reporting Period.

After posting, this entry would appear in the General Ledger as is shown in Figure 10.5.

Figure 10.5 General Ledger: BDA for accrued expense

General Ledger					
Electricity Expense (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Bank	1 500			
	Accrued Electricity	300			

Accrued Electricity (L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Oct. 31	Electricity Expense	300

Effect on the accounting equation

As a result of the adjustment for Accrued Electricity:

	Increase/Decrease/No effect	Amount \$
Assets	No effect	
Liabilities	Increase (Accrued Electricity)	300
Owner's Equity	Decrease (increase Electricity Expense decreases Net Profit)	300

As with the adjustment for the consumption of a prepaid expense, this adjustment does not change Bank, nor does it affect GST Clearing. Rather, it decreases profit and increases liabilities in the Balance Sheet.

Closing the ledger

As a current liability, the Accrued Electricity account will be balanced, but the Electricity Expense account will be closed to the Profit and Loss Summary account. After it has been closed, the Electricity Expense account would show:

ELECTRICITY EXPENSE (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Bank	1 500	Oct. 31	Profit and Loss Summary	1 800
	Accrued Electricity	300			
		1 800			1 800

Note how the amount closed (\$1 800) is greater than the amount of the adjustment (\$300), as the **total expense incurred** includes both the \$1 500 paid, and the \$300 still owing at the end of the period. Remember, for an item to be recognised as an expense, the definition requires an item to be consumed; payment is not necessary.

Payment of accrued expenses in subsequent periods

Sometime in the next Reporting Period, the amount owing as an accrued expense will be paid. Therefore, the next time a cheque is written to pay for the expense, we must recognise that while some of the amount paid may represent an expense of the **current** Reporting Period, at least some of the payment relates to the **previous** Reporting Period. In other words, some of the amount paid reduces the liability for accrued expenses – expenses incurred and accrued *last period*.

On 4 November 2015, a cheque for \$1 500 (plus \$150 GST) was sent to the electricity company (Ch. 77).

EXAMPLE**STUDY TIP**

When adjusting an accrued expense, 'add on' the extra amount incurred (to the expense).

The payment of electricity on 4 November 2015 would be recorded in the Cash Payments Journal as shown in Figure 10.6:

Figure 10.6 *Cash Payments Journal: payment of accrued expense in a subsequent period*

CASH PAYMENTS JOURNAL

Date	Details	Chq. no.	Bank	Discount Revenue	Creditors Control	Wages	Drawings	Sundries	GST
Nov. 4	Accrued Electricity/	77	1 650					300	150
	Electricity Expense							1 200	
	Totals	\$	16 350	300	4 000	8 000	3 000	1 500	150

The full amount paid – **\$1 650** – is recorded in the Bank column, as this is the amount written on the cheque. However, this is not all Electricity Expense incurred in November 2015. For a start, it includes **\$150** worth of GST, which must be debited to GST Clearing. This leaves us with \$1 500 that has been paid for electricity. But how much relates to electricity that was consumed in **November 2015**?

Remember that on 31 October 2015, we made a balance day adjustment to record **\$300** of electricity that had been **consumed in October 2015**, but was not yet paid. That is, at 31 October 2015, **\$300** was owed for Accrued Electricity. So when the payment is made on 4 November 2015, some of the \$1 500 is being used to pay off this earlier debt. That is, **\$300 is paid to decrease the Accrued Electricity liability**, so only **\$1 200** represents Electricity Expense consumed during **November 2015**.

Once the Cash Payments Journal has been posted to the General Ledger, the accounts would appear as shown in Figure 10.7.

Figure 10.7 *General Ledger: payment of accrued expense in a subsequent period*

General Ledger

Bank (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Nov. 30	Balance	4 000	Nov. 30	Cash payments	16 350

Electricity Expense (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Nov. 30	Bank	1 200			

Accrued Electricity (L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Nov. 30	Bank	300	Nov. 1	Balance	300

GST Clearing (A/L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Nov. 30	Bank	150	Nov. 1	Balance	850

As was noted in Chapter 4, not all expenses are subject to GST, so when paying a non-GST item (such as wages or interest expense) in a subsequent period, it will not be necessary to account for the GST. However, it is likely that it will still be necessary to split the payment as part wages expense, part accrued wages, or as part interest expense, part accrued interest.

Effect on the accounting equation

As a result of the payment of **Electricity** and **Accrued Electricity**:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Bank)	1 650
Liabilities	Decrease (Accrued Electricity \$300 , GST Clearing \$150)	450
Owner's Equity	Decrease (increase Electricity Expense decreases Net Profit)	1 200

Accrued expense versus sundry creditor

It is important to distinguish between amounts owed as accrued expenses and amounts owed to sundry creditors. An accrued expense occurs when an expense has been incurred, but the payment has not yet been made. A sundry creditor occurs when items other than stock are purchased, but the payment has not been made. (Creditors Control only records credit purchases of stock.) Given the obvious similarity, what is the difference? When should an amount owing be recorded as an accrued expense? When should it be recorded as a sundry creditor?

To start, accrued expenses must relate specifically to expenses. The amounts must be owing for items that have been consumed, rather than for assets. But, more importantly, accrued expenses are not due for repayment at balance day, because no invoice has been received. Accrued expenses occur when balance day falls before an item has been paid, but also before it is due for payment. Thus, an accrued expense will be verified not by an invoice, but by something like a memo. If an invoice has been received, the transaction is simply a credit transaction, and the amount owing should be shown as a sundry creditor.

REVIEW QUESTIONS 10.3

- 1 **Explain** why an accrued expense is classified as a current liability.
- 2 **Show** the General Journal entries necessary to record an accrued expense.
- 3 **State** the effect on the accounting equation of the balance day adjustment for an accrued expense.
- 4 **Explain** why the payment of an accrued expense in a subsequent period requires the payment to be split in the Cash Payments Journal.
- 5 **State** the effect on the accounting equation of the payment of an accrued expense in a subsequent period.
- 6 **Distinguish** between an accrued expense and a sundry creditor.

10.4 THE POST-ADJUSTMENT TRIAL BALANCE

Pre-adjustment Trial Balance

a list of all General Ledger accounts and their balances before balance day adjustments have been made

Post-adjustment Trial Balance

a list of all General Ledger accounts and their balances after balance day adjustments have been made

The idea of preparing a Trial Balance was introduced in Chapter 3 as part of the ledger recording process. Its function was to check that total debits equal total credits. Technically, this should have been titled a **Pre-adjustment Trial Balance**, as it is prepared before any balance day adjustments have been recorded.

However, balance day adjustments change the General Ledger accounts, after the Trial Balance has already been prepared; they increase certain expenses, decrease certain current assets, and increase certain current liabilities. This means it may be useful to prepare a **Post-adjustment Trial Balance**, to check that even after the balance day adjustments have been made, the total debits equal the total credits.

EXAMPLE

KINGSTON HOMEWARES
Pre-adjustment Trial Balance as at 30 June 2015

Account	Debit	Credit
Stock Control	34 000	
Debtors Control	12 000	
Prepaid Rent	6 000	
Fixtures and Fittings	50 000	
Bank		1 000
Creditors Control		19 000
Loan – Wonderbucks		45 000
Capital – Gemeika		29 000
Sales Revenue		100 000
Cost of Sales	60 000	
Wages	20 000	
Electricity	8 000	
Advertising	4 000	
Totals	\$194 000	\$194 000

Additional information as at 30 June 2015:

- **Stock loss** \$ 1 000
- **Rent incurred** \$ 700
- **Accrued wages** \$ 200

The entries to record these balance day adjustments (with the narrations omitted) would be recorded in the General Journal as is shown below:

General Journal

Date	Details	General Ledger		Subsidiary Ledger	
		Debit	Credit	Debit	Credit
June 30	Stock Loss	1 000			
	Stock Control		1 000		
June 30	Rent Expense	700			
	Prepaid Rent		700		
June 30	Wages	200			
	Accrued Wages		200		

After these balance day adjustments were posted to the ledger accounts, a Post-adjustment Trial Balance would be prepared, as is shown in Figure 10.8.

Figure 10.8 Post-adjustment Trial Balance

KINGSTON HOMEWARES

Post-adjustment Trial Balance as at 30 June 2015

Account	Debit	Credit
Stock Control	33 000	
Debtors Control	12 000	
Prepaid Rent	5 300	
Fixtures and Fittings	50 000	
Bank		1 000
Creditors Control		19 000
Loan – Wonderbucks		45 000
Capital – Gemeika		29 000
Sales Revenue		100 000
Cost of Sales	60 000	
Wages	20 200	
Electricity	8 000	
Advertising	4 000	
Stock Loss	1 000	
Rent Expense	700	
Accrued Wages		200
Total	\$194 200	\$194 200

Obviously the balance day adjustments were posted correctly – at least in terms of debits matching credits – because this Post-adjustment Trial Balance still balances (at a new total of **\$194 200**).

Preparing the Post-adjustment Trial Balance also assists in ensuring that the closing entries and the Income Statement use the correct amounts: the *adjusted* figures for the amounts *incurred* rather than the unadjusted figures, which did not account for any balance day adjustments.

REVIEW QUESTIONS 10.4

- 1 **Explain** the difference between a Pre-adjustment Trial Balance and a Post-adjustment Trial Balance.
- 2 **Explain** how a Post-adjustment Trial Balance can assist in the calculation of an accurate profit figure.



WHERE HAVE WE BEEN?

- Balance day adjustments are necessary so that an accurate profit is calculated by comparing revenue earned and expenses incurred in the current Reporting Period.
- Balance day adjustments may be necessary for:
 - stock losses and gains (covered in Chapter 8)
 - prepaid expenses
 - accrued expenses
 - depreciation (to be covered in Chapter 11).
- Each balance day adjustment for an expense increases the expense, thus decreasing profit and owner's equity.
- Adjustments for prepaid expenses decrease assets; adjustments for accrued expenses increase liabilities.
- Balance day adjustments have no effect on cash, but will change Net Profit and the items in the Balance Sheet.
- A Post-adjustment Trial Balance should be prepared after the balance day adjustments have been posted to the ledger to check that total debits still equal total credits.



EXERCISES

EXERCISE 10.1
PREPAID EXPENSE
 page 192

On 1 March 2015, Dom's Large Goods paid \$6 000 (plus \$600 GST) to cover the next six months' rent (Ch. 34). The firm closes its ledger accounts and prepares its financial reports on 30 June each year.

Required

- a **Record** Cheque 34 in the Cash Payments Journal of Dom's Large Goods.
- b Referring to one accounting principle, **explain** why some of the rent paid should be reported as an expense for the year ending 30 June 2015.
- c **Calculate** rent expense for the year ending 30 June 2015.
- d **Show** the General Journal entries necessary to record rent expense for the year ending 30 June 2015. (Narration is **not** required.)
- e **State** the effect of the adjustment for rent expense on the accounting equation of Dom's Large Goods.
- f **Show** how the Rent Expense and Prepaid Rent Expense accounts would appear in the General Ledger of Dom's Large Goods as at 30 June 2015 after all closing and balancing entries have been made.



EXERCISE 10.2

PREPAID EXPENSE

 page 194

On 11 February 2015, Ronnie's Car Parts paid \$300 (plus GST) for office supplies (Ch. 153). On 28 February 2015, \$60 worth of office supplies was still on hand (Memo 84).

Required

- a **Record** the payment for office supplies in the Cash Payments Journal.
- b **Calculate** office supplies expense for February 2015.
- c **Show** the General Journal entries necessary to record office supplies expense for February 2015.
- d **Show** how the Office Supplies Expense and Prepaid Office Supplies accounts would appear in the General Ledger of Ronnie's Car Parts as at 28 February 2015 after all closing and balancing entries have been made.
- e **Show** how Prepaid Office Supplies would be reported in the Balance Sheet of Ronnie's Car Parts as at 28 February 2015.

EXERCISE 10.3

PREPAID EXPENSE

 page 196

Maxwell's Shoes presented the following extract from its Balance Sheet as at 31 March 2015:

Current assets:	Prepaid Insurance	\$1800
------------------------	-------------------	--------

The yearly insurance premium was paid in advance on 1 January 2015. The business prepares reports monthly, and the next balance day occurs on 30 April 2015.

Required

- a Referring to one qualitative characteristic, **explain** why balance day adjustments are necessary.
- b **Calculate** the insurance expense for April 2015.
- c **Show** the General Journal entries necessary to record insurance expense for April 2015. (Narration is **not** required.)
- d **State** the effect on the accounting equation of Maxwell's Shoes if the adjustment for insurance expense was **not** made.
- e **Show** how Prepaid Insurance would be reported in the Balance Sheet of Maxwell's Shoes as at 31 July 2015.

EXERCISE 10.4

PREPAID EXPENSE

 page 197

On 27 June 2015, Halifax Furniture Sales paid \$2 200 (including GST) for advertising in *Furniture Trader* magazine (Ch. 307). The advertisements will appear once a month for five months, with the first advertisement appearing in July 2015 (Memo 82).

Required

- a **Record** Cheque 307 in the Cash Payments Journal.
- b **Explain** how the amount paid for advertising would be reported in the Balance Sheet of Halifax Furniture Sales as at 30 June 2015.
- c **Calculate** advertising expense for the quarter ended 30 September 2015.
- d **Show** the General Journal entries necessary to record advertising expense for the quarter ended 30 September 2015.

- e **Show** how the Advertising Expense and Prepaid Advertising accounts would appear in the General Ledger of Halifax Furniture Sales as at 30 September 2015 after all closing and balancing entries have been made.
- f **State** the effect on the Net Profit of Halifax Furniture Sales for the quarter ended 30 September 2015 if the adjustment for advertising expenses was **not** made.

EXERCISE 10.5 PREPAID EXPENSE

 page 199

During 2014, Clive Rap opened his own CD shop called Hard MC. On 31 August 2014, Clive paid \$1 650 (including GST) to cover rent for the six months from 1 September 2014 to 28 February 2015 (Ch. 233). During December 2014, the firm was informed that, beginning in March 2015, rent would increase, so on 28 February 2015, the firm paid \$1 800 (plus \$180 GST) for rent for the six months from 1 March to 31 August 2015 (Ch. 297). The firm prepares its reports on 30 June each year.

Required

- a **Calculate** rent paid for the year ended 30 June 2015.
- b **Calculate** rent expense for the year ended 30 June 2015.
- c Referring to your answers to parts 'a' and 'b', **explain** why rent paid and rent expense are different amounts.
- d **Show** the General Journal entries necessary to record rent expense for the year ended 30 June 2015. (Narration is **not** required.)
- e **Show** how the Rent Expense and Prepaid Rent Expense accounts would appear in the General Ledger of Hard MC as at 30 June 2015 after all closing and balancing entries have been made.
- f **State** the effect on the accounting equation of Hard MC if the adjustment for rent expense was **not** made.

EXERCISE 10.6 ACCRUED EXPENSE

 page 201

During 2015, Strong Arm Security Devices paid \$11 000 (including \$1 000 GST) for advertising, but as at 31 December 2015 a further \$3 000 was still owing (Memo 44).

Required

- a **Calculate** advertising expense for 2015.
- b Referring to one qualitative characteristic, **explain** why the advertising owing should be included in the advertising expense for 2015.
- c **Show** the General Journal entries necessary to record advertising owing as at 31 December 2015.
- d **State** the effect on the accounting equation of Strong Arm Security Devices of the adjustment for advertising owing.
- e **Show** how the Advertising Expense and Accrued Advertising accounts would appear in the General Ledger of Strong Arm Security Devices as at 31 December 2015 after all closing and balancing entries have been made.
- f **Explain** how Accrued Advertising would be reported in the Balance Sheet of Strong Arm Security Devices as at 31 December 2015.



EXERCISE 10.7 ACCRUED EXPENSE

 page 203

After a series of break-ins, Jim's Gems employed a security guard on 12 June 2015. The security guard works seven days per week, and is paid wages of \$1 260 per fortnight. Wages were last paid to cover the fortnight from 12 June to 25 June 2015 inclusive (Memo 17).

Required

- a **Calculate** accrued wages as at 30 June 2015.
- b **Show** the General Journal entries necessary to record accrued wages as at 30 June 2015.
- c **Show** how the Wages Expense and Accrued Wages accounts would appear in the General Ledger of Jim's Gem's as at 30 June 2015 after all closing and balancing entries have been made.
- d **Record** the payment of wages on 9 July 2015, (Ch. 236) in the Cash Payments Journal.
- e Referring to one accounting principle, **explain** why only some of the wages paid on 9 July 2015 should be reported as an expense for July 2015.

EXERCISE 10.8 ACCRUED EXPENSE

 page 205

On 1 November 2014, Millie Hall borrowed \$24 000 to set up her business, Hall Antiques. It is an interest only loan, due to be paid back in five years' time. Interest is calculated at 8% p.a. and is payable in two separate payments on 30 April and 31 October each year.

Required

- a **Calculate** interest expense incurred for the year ended 30 June 2015.
- b **Show** the General Journal entries necessary to record accrued interest expense as at 30 June 2015. (Narration is **not** required.)
- c **Show** how the Interest Expense and Accrued Interest Expense accounts would appear in the General Ledger of Hall Antiques as at 30 June 2015 after all closing and balancing entries have been made.
- d **State** the effect on the Net Profit of Hall Antiques for the year ended 30 June 2015 if the adjustment for accrued interest was **not** made.
- e **Record** the payment of interest on 31 October 2015 in the Cash Payments Journal.
- f **State** the effect on the accounting equation of Hall Antiques of the payment of interest on 31 October 2015.

EXERCISE 10.9

ACCRUED EXPENSE

 page 207

During April 2015, Bright Lights paid electricity worth \$4 400 (including GST), but incurred electricity worth \$4 600 (Memo 31). On 14 May 2015, the firm paid \$2 500 (plus GST) for electricity (Ch. 196).

Required

- Calculate** accrued electricity as at 30 April 2015.
- Show** the General Journal entries to record accrued electricity as at 30 April 2015.
- Show** how the Electricity Expense and Accrued Electricity accounts would appear in the General Ledger of Bright Lights as at 30 April 2015 after all closing and balancing entries have been made.
- State** the effect on the accounting equation of Bright Lights if the balance day adjustment for accrued electricity is **not** recorded.
- Record** Cheque 196 in the Cash Payments Journal.

EXERCISE 10.10

ACCRUED EXPENSE

 page 209

As at 31 July 2015, the General Ledger of Brooke Irrigation Supplies showed accrued cleaning expenses of \$450. On 5 August 2015, the business paid \$1 870 (including GST) for cleaning (Ch. 201). This was the only payment for cleaning during August 2015. As at 31 August 2015, \$510 was owing for cleaning expenses (Memo 12).

Required

- Record** Cheque 201 in the Cash Payments Journal.
- Calculate** cleaning expenses for August 2015.
- Show** the General Journal entries necessary to record accrued cleaning expense as at 31 August 2015.
- Complete** the Accrued Cleaning Expenses account in the General Ledger of Brooke Irrigation Supplies as at 31 August 2015.
- State** the effect on the accounting equation of Brooke Irrigation Supplies if the balance day adjustment for accrued cleaning is **not** recorded.
- State** one accounting principle that would be breached if the adjustment for accrued cleaning expense was **not** made. **Justify** your answer.



EXERCISE 10.11

REPORTING PREPAID AND ACCRUED EXPENSES

 page 211

Pickford Paints has provided the following Pre-adjustment Trial Balance as at 30 June 2015:

PICKFORD PAINTS
Pre-adjustment Trial Balance as at 30 June 2015

Account	Debit	Credit
Advertising	3 850	
Bank	1 050	
Capital – Pickford		27 050
Cost of Sales	57 000	
Creditors Control		30 400
Debtors Control	23 100	
Discount Expense	250	
Discount Revenue		200
Drawings	4 300	
Freight In	600	
GST Clearing		120
Interest Expense	220	
Loan – Bank of Wilco		40 000
Office Equipment	7 900	
Prepaid Rent	4 500	
Sales		96 000
Shop Fittings	15 800	
Stock Control	45 600	
Wages	29 600	
Totals	\$193 770	\$193 770

Additional information:

- The Loan – Bank of Wilco is repayable at \$6 000 p.a.
- A physical stocktake on 30 June 2015 showed stock on hand worth \$45 200.
- Monthly rent expense is \$900.
- \$1 200 wages remained owing to employees at 30 June 2015.
- Reports are prepared monthly.

Required

- Referring to one accounting principle, **explain** the purpose of making balance day adjustments.
- Show** the General Journal entries necessary to record the balance day adjustments on 30 June 2015. (Narrations are **not** required.)
- * **Prepare** a Post-adjustment Trial Balance for Pickford Paints as at 30 June 2015.
- Show** the General Journal entries necessary to close the ledger, and transfer drawings to the Capital account. (Narrations are **not** required.)
- * **Prepare** an Income Statement for Pickford Paints for June 2015.
- * **Prepare** a classified Balance Sheet for Pickford Paints as at 30 June 2015.

EXERCISE 10.12

REPORTING PREPAID AND ACCRUED EXPENSES

 page 215

Maranelli Sports has provided the following Pre-adjustment Trial Balance as at 31 December 2015:

MARANELLI SPORTS
Pre-adjustment Trial Balance as at 31 December 2015

Account	Debit	Credit
Advertising	8 200	
Bank		2 300
Buying Expenses	3 000	
Capital – Maranelli		85 430
Cost of Sales	92 000	
Creditors Control		18 300
Debtors Control	12 400	
Discount Expense	1 230	
Discount Revenue		580
Drawings	31 000	
Fittings and Fixtures	26 800	
GST Clearing		320
Interest Expense	1 800	
Mortgage – HH Finance		180 000
Premises	240 000	
Prepaid Insurance	1 500	
Sales		190 000
Stock Control	32 000	
Wages	9 000	
Totals	\$476 930	\$476 930

Additional information:

- A physical stocktake on 31 December 2015 showed stock on hand worth \$31 700.
- As at 31 December 2015, prepaid insurance amounted to \$600.
- Yearly repayments of \$12 000 are made on the principal of the Mortgage – HH Finance. Interest is charged at 6% p.a., and payable on 28 February and 31 August each year.
- The ledger was last closed and reports prepared on 30 June 2015.

Required

- Explain** how balance day adjustments ensure *Relevance* in the financial reports.
- Show** the General Journal entries necessary to record the balance day adjustments on 31 December 2015. (Narrations are **not** required.)
- * **Prepare** a Post-adjustment Trial Balance for Maranelli Sports as at 31 December 2015.
- Show** the General Journal entries necessary to close the ledger, and transfer drawings to the Capital account. (Narrations are **not** required.)

- * **e Prepare** an Income Statement for Maranelli Sports for the six months ended 31 December 2015.
- f Assess** the sales mark-up applied by Maranelli Sports for the six months ended 31 December 2015.
- * **g Prepare** a classified Balance Sheet for Maranelli Sports as at 31 December 2015.
- h** Referring to your answer to part 'g', **explain** your treatment of interest owing.

EXERCISE 10.13

REPORTING FOR PREPAID AND ACCRUED EXPENSES

 page 219

Alannah Fashions has provided the following Pre-adjustment Trial Balance as at 31 March 2015:

ALANNAH FASHIONS

Pre-adjustment Trial Balance as at 31 March 2015

Account	Debit	Credit
Advertising	1 750	
Bank		4 100
Capital – Alannah		48 350
Cost of Sales	24 800	
Creditors Control		40 600
Debtors Control	21 700	
Discount Expense	140	
Discount Revenue		310
Drawings	21 700	
GST Clearing	400	
Interest Expense	90	
Loan – FinCo.		15 000
Office Equipment		6 300
Prepaid Office Supplies	180	
Prepaid Rent	6 000	
Sales		62 000
Shop Fittings	40 000	
Stock Control	39 000	
Wages	9 000	
Totals	\$170 360	\$170 360

Additional information:

- The Loan – Finco is an interest only loan, due for repayment on 31 December 2020.
- As at 1 March 2015, there was \$12 000 stock on hand, but Alannah decided to increase it. A physical stocktake on 31 March 2015 showed stock on hand worth \$40 400.
- Yearly rent is paid on 1 August each year.

- On 28 February 2015, accrued wages was \$310. As at 31 March 2015, \$360 was owing to employees in unpaid wages. The next payment of \$1 600 for wages is due on 2 April 2015.
- At 31 March 2015, \$70 of office supplies were still on hand.

Required

- a Calculate** the total cash paid for wages during March 2015.
- b** Given that reports are prepared monthly, **show** the General Journal entries to record the balance day adjustments on 31 March 2015. (Narrations are **not** required.)
- * **c Prepare** a Post-adjustment Trial Balance for Alannah Fashions as at 31 March 2015.
- d Show** the General Journal entries necessary to close the ledger, and transfer Drawings to the Capital account. (Narrations are **not** required.)
- e Complete** the Profit and Loss Summary account.
- * **f Prepare** an Income Statement for Alannah Fashions for March 2015.
- * **g Prepare** a classified Balance Sheet for Alannah Fashions as at 31 March 2015.
- h** Referring to the information supplied, **suggest** one reason why the GST Clearing account has a debit balance. **Justify** your answer.
- i Record** the payment of wages on 2 April 2015 in the Cash Payments Journal (Ch. 370).
- j State** the effect of the payment on 2 April 2015 on the accounting equation of Alannah Fashions.

Where are we headed?

After completing this chapter, you should be able to:

- **identify** the characteristics of a depreciable non-current asset
- **define** depreciation, and other related terms
- **explain** the purpose of depreciation, and its relationship to the accounting principles and qualitative characteristics
- **calculate** depreciation expense using the straight-line method
- **record** depreciation in the General Journal and General Ledger
- **report** for depreciation in the Income Statement and Balance Sheet
- **explain** the effect of depreciation on the accounting equation
- **define** the term 'cost' as it refers to non-current assets.

..... CHAPTER 11

DEPRECIATION OF NON-CURRENT ASSETS

KEY TERMS

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

- depreciable asset
- finite life
- depreciation
- depreciation expense
- depreciable value
- carrying value
- residual value
- useful life.

11.1 ASSETS AND EXPENSES

There seems to be a school of thought that looks upon assets as 'good', and expenses as 'bad'. According to this (misguided) analysis, assets are good because they help companies to earn profit, but expenses are bad because they reduce that profit. But if this were the case, why would a business have expenses at all? Why put up with paying wages, or rent, or advertising or electricity expenses when all they do is lower profit?

The simple answer is that, just like assets, these expenses are necessary – necessary to help earn revenue and generate profit. A business that had no employees, no premises, no advertising and no electricity could simply not do its job. In this way, assets and expenses have something in common: they both assist in the earning of revenue. This is reflected in the definitions:

Asset a resource controlled by the entity as a result of past events from which future economic benefits are expected to flow to the entity.

Expense a consumption or outflow (or reduction in an inflow) of an economic benefit, in the form of a decrease in assets or increase in liabilities, which results in a decrease in owner's equity (except drawings).

Both definitions refer to the *economic benefit* that is brought to the business. However, the definitions also highlight the key difference between an asset and an expense: an asset is defined as a *future* economic benefit, while an expense is defined as the *consumption* of an economic benefit. That is, expenses refer to economic benefits that have *already been consumed* (in the current Reporting Period), whereas assets refer to economic benefits that are *yet to be consumed* (and will be consumed in future Reporting Periods).

Depreciable assets

Items such as vehicles, office equipment and shop fittings (which are controlled by the business) will provide a future economic benefit for more than 12 months, and so should be recorded as non-current assets when they are purchased.

Assets such as vehicles, office equipment and shop fittings are depreciable assets. Over time, their ability to earn revenue is reduced.



At the same time, just because assets such as these will last for more than 12 months does not mean they will last forever. As they age, they wear out, and as their life expires, so too does their ability to earn revenue. This means they are **depreciable assets** – they have a **finite life**, and will be useful for a fixed period of time. At some point in the future they will be no longer able to earn revenue.

In effect, depreciable assets are *consumed over time*. We may not be able to see this consumption, but that does not mean that it is not happening. Every year, *part* of the value of the asset is consumed, until – at the end of its life – the asset's revenue-earning capacity is wholly consumed, and it is unable to earn revenue any longer. As we already know, a *consumption* of an economic benefit is an *expense*, meaning that each year *part* of the asset's value is consumed, so *part* of its value becomes an expense. This process of calculating *how much* value has been consumed in each period is called 'depreciation'.

On 1 January 2015, Lane Grove Furniture paid \$32 000 (plus \$3 200 GST) for a new delivery vehicle. It is expected that it will be kept for five years.

In this example, let us deal first with the GST. It is excluded from our consideration of depreciation because it is not included in the cost of the vehicle; it actually represents a reduction in the GST liability owed to the ATO. But what about the vehicle itself?

At purchase date (1 January 2015) the vehicle is clearly a *non-current asset*. The entire \$32 000 is a future economic benefit (in terms of the deliveries it can do); is controlled by the firm; and that benefit will be provided for more than 12 months (until the vehicle can no longer make deliveries).

But how should the vehicle be reported as at 31 December 2015?

Assuming that the business still has the vehicle, it has not been *consumed*, so the \$32 000 should not be reported as an expense for the year ended 31 December 2015. Indeed, the vehicle will still be available to provide an economic benefit in *future* Reporting Periods (2016 and onwards), and so should still be reported as a non-current asset.

However, the vehicle is a depreciable asset with a finite life: slowly but surely, the productive capacity of the vehicle will be consumed. This will not happen in one Reporting Period, but rather over a number of Reporting Periods, so *part* of the asset's value should be reported as an expense for the year ended 31 December 2015. The remainder – the part yet to be consumed – should be reported as a non-current asset; that is, \$32 000 less the amount consumed so far.

In order to calculate that part of the cost of the vehicle consumed in the current Reporting Period (the year ended 31 December 2015), it is necessary to depreciate the asset.

Note: Assets that have an infinite or never-ending life (where the economic benefit will continue forever) should not be depreciated, as they may be *used*, but are never '*used up*' or consumed. This may apply to an asset such as land, but very few other items.

depreciable asset

a non-current asset that has a finite life, and must be depreciated over its life

finite life

the limited period of time (usually measured in years) for which a non-current asset will exist

EXAMPLE

STUDY TIP

If the GST clearing account starts out with a debit balance, GST paid will increase this asset, rather than decrease a liability.

REVIEW QUESTIONS 11.1

- 1 Referring to the definitions, **identify** the characteristic common to both assets and expenses.
- 2 **Explain** the key difference between an asset and an expense.
- 3 **Identify** the characteristics of a depreciable non-current asset.
- 4 **Explain** why it is not necessary to calculate depreciation for assets such as land.
- 5 Referring to one accounting principle, **explain** why the entire cost of a non-current asset should **not** be reported as an expense.
- 6 **Explain** why GST is excluded from the consideration of depreciation.

11.2 DEPRECIATION OF NON-CURRENT ASSETS

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.

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.

The purpose of depreciation

Just like adjustments for accrued or prepaid expenses, depreciation is a balance day adjustment and, consequently, the purpose of depreciating non-current assets is the same as the purpose of any other balance day adjustment. All balance day adjustments, depreciation included, are made to ensure that an accurate profit is calculated, by comparing revenues earned against expenses incurred in the *current* Reporting Period. Depreciation does this 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. This will also ensure that the Income Statement upholds Relevance by including 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.

REVIEW 11.2

- 1 **Define** the term 'depreciation'.
- 2 **Define** the term '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.

depreciation

the allocation of the cost of a non-current asset over its useful life

depreciation expense

that part of the cost of a non-current asset that has been consumed in the current Reporting Period

11.3 CALCULATING DEPRECIATION EXPENSE

There are a number of different ways to calculate depreciation expense, each of which makes different assumptions about the way assets are consumed. Unit 3 concentrates on only one method: the straight-line method of depreciation. (An alternative method is discussed in Chapter 15, but that is part of Unit 4.)

Straight-line method of depreciation

The straight-line method of calculating depreciation assumes that non-current assets contribute evenly to revenue, doing the same job in the last year of their life as they did in their first. As a result, it assumes that the value of a non-current asset is consumed evenly over its life, so the depreciation expense is 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.

Depreciation expense: formula

$$\text{Depreciation expense (\$ per annum)} = \frac{\text{HC} - \text{RV}}{\text{Life}}$$

<i>Where:</i>	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.

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.)

On 1 January 2015, Big Cycles purchased Office Furniture for \$5 000 (plus \$500 GST). The furniture will be kept for three years, at which time it will have an estimated residual value of \$800.

EXAMPLE

$$\begin{aligned} \text{Depreciation expense} &= \frac{\text{HC} - \text{RV}}{\text{Life}} \\ &= \frac{\$5\,000 - 800}{3 \text{ years}} \\ &= \frac{\$4\,200}{3} \\ &= \$1\,400 \text{ per annum} \end{aligned}$$

In this example, the depreciation process calculates that the business is consuming \$1 400 worth of the furniture's value **each year**. This amount would be recorded as an expense, and would also decrease the value at which the furniture is valued in the Balance Sheet.

Depreciable value

If we plan to use the asset until it is utterly worthless, then the residual value will simply be zero, and the entire cost of the asset will be consumed by our business.

However, we may dispose of the asset while it still has some value. This amount will then not be consumed by *our* business, but by *another entity*. Thus, the residual value must be deducted from the Historical Cost, because this is the amount that will *not be consumed by our business*. In this example, \$800 worth of value will still exist when we are finished with the asset (this amount will be consumed by the next owner): the asset was purchased for \$5 000, but only \$4 200 will be consumed by Big Cycles.

The amount calculated by deducting residual value from Historical Cost (in the top line of the equation) is known as the **depreciable value**; it is the total value of the asset that will be consumed by the current owner/entity, and so must be allocated over its useful life.

Time or use?

Note also that we are not depreciating the asset more or less depending on use; your desk does not deteriorate any faster or slower depending on how long you are sitting there. In fact, straight-line depreciation assumes that the asset is consumed over *time*, not according to use. And this is reflected in the formula, which uses 'useful life' rather than some measure of use.

The straight-line method may be less suitable for assets that do not contribute evenly to revenue, but until this is covered in Unit 4, *all* assets in Unit 3 are depreciated using the straight-line method.

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

REVIEW 11.3

- 1 **Explain** the assumption that underlies the straight-line method of depreciation in relation to how assets contribute to revenue.
- 2 **State** the formula for calculating depreciation 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.

11.4 RECORDING DEPRECIATION

As was noted earlier, depreciation is a balance day adjustment. As a result, it is recorded in the General Journal on balance day – at the end of the Reporting Period – in common with a stock loss, prepaid rent or accrued wages.

On 1 January 2015, Mixwell Paints purchased a new van for **\$32 000** plus \$3 200 GST. Depreciation on the van has been calculated as **\$1 200** per year (Memo 5).

EXAMPLE

At balance day (31 December 2015) the balance day adjustment for depreciation would be recorded in the General Journal as shown in Figure 11.1:

Figure 11.1 General Journal: depreciation of NCA**General Journal**

Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
31/12/15	Depreciation of Van	1 200			
	Accumulated Depreciation of Van		1 200		
	Yearly depreciation on van – s/line method (Memo 5)				

Remember, depreciation calculates that part of the cost of a non-current asset that has been consumed in the *current* Reporting Period. This amount would be recorded as an expense, by debiting a new account called **Depreciation of Van**.

At the same time, depreciation also decreases the value at which the asset is reported 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 would normally be recorded as a credit entry, but rather than credit the asset account directly, the credit entry is made to a new account called **Accumulated Depreciation of Van**. This account is a negative asset account.

Note that the accounts are titled 'Depreciation of Van' and 'Accumulated Depreciation of Van' rather than just 'Depreciation' or 'Accumulated Depreciation'. Given that most businesses will depreciate more than one non-current asset, it is imperative to identify precisely which asset is being depreciated.

The General Journal entry in Figure 11.1 would be posted to the General Ledger as shown in Figure 11.2:

Figure 11.2 General Ledger: depreciation of NCA**General Ledger****Depreciation of Van (E)**

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
31/12/15	Acc. Dep. of Van	1 200			

Accumulated Depreciation of Van (– A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			31/12/15	Dep. of Van	1 200

STUDY TIP

Depreciation is an area where intelligent abbreviations can make your life much easier.

Effect on the accounting equation

Depreciation has the following effect on the accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Increase Accumulated Depreciation of Van)	1 200
Liabilities	No effect	
Owner's Equity	Decrease (Depreciation of Van expense decreases Net Profit)	1 200

Depreciation versus Accumulated Depreciation

The key to understanding accumulated depreciation lies in the title. Whereas depreciation expense refers to the amount consumed in the *current* Reporting Period, **accumulated depreciation** refers to depreciation that has accumulated (or built up) *over the life of the asset so far*. Accumulated depreciation will grow every year as the depreciation expense for each Reporting Period is added to it.

As an expense, the Depreciation of Van account must be closed to the Profit and Loss Summary account at the end of each Reporting Period. In fact, it will open and close on the very same day, leaving it with a zero balance at the end of the period. Accumulated Depreciation of Van, on the other hand, is an ongoing account; it will be balanced at the end of the period, with its balance carried forward to the next.

After the Depreciation of Van account has been closed, and the Accumulated Depreciation of Van account has been balanced, the ledger accounts would show:

General Ledger Depreciation of Van (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
31/12/15	Acc. Dep. of Van	1 200	31/12/15	Profit and Loss Summary	1 200
		1 200			1 200

Accumulated Depreciation of Van (– A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
31/12/15	Balance	1 200	31/12/15	Dep. of Van	1 200
		1 200			1 200
			1/1/16	Balance	1 200

Note that the entry to **close the Depreciation of Van account** is made in the General Journal at the same time that all the expense accounts (including expenses, such as Cost of Sales, Wages and Advertising) are closed. All the expense accounts are credited individually in order to transfer the amount so that profit or loss can be calculated, and reset them to zero for the next Reporting Period. However, only one debit entry is made to the Profit and Loss Summary. The depreciation expense account would never be closed on its own. (See Chapter 9 for a reminder.)

Subsequent periods

Let us continue to depreciate the van. At the end of the next year (2016) another \$1200 of depreciation must be recorded. This \$1200 represents the value of the asset **consumed during 2016**, and so is once again debited to **Depreciation of Van**, and credited to **Accumulated Depreciation of Van**.

accumulated depreciation
the value of a non-current asset that has been consumed/incurred over its life thus far

General Journal

Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
31/12/16	Depreciation of Van	1 200			
	Accumulated Depreciation of Van		1 200		
	Yearly depreciation on van – s/line method (Memo 12)				

After depreciation for 2016 has been recorded in the General Ledger, and the accounts have been closed or balanced, the ledger accounts would show:

General Ledger**Depreciation of Van (E)**

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
31/12/16	Acc. Dep. of Van	1 200	31/12/16	Profit and Loss Summary	1 200
		1 200			1 200

Accumulated Depreciation of Van (– A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
31/12/16	Balance	2 400	1/1/16	Balance	1 200
			31/12/16	Dep. of Van	1 200
		2 400			2 400
			1/1/17	Balance	2 400

The Depreciation of Van account had been closed at the end of 2015, so the depreciation expense for 2016 will be the only entry in that account until it is closed again on 31 December 2016.

However, the Accumulated Depreciation of Van account already had a **balance of \$1 200**: the amount accumulated from last year (2015). When depreciation (of \$1 200) for the current year (2016) is recorded, the balance of this account increases to \$2 400. Once again, the account would be balanced in readiness for the next period (2017).

REVIEW QUESTIONS 11.4

- Show** the General Journal entries to record the balance day adjustment for depreciation expense.
- State** one reason why the ledger accounts must name the asset being depreciated.
- State** the effect of depreciation on the accounting equation.
- Referring to one accounting principle, **explain** the difference between depreciation expense and accumulated depreciation.
- State** two reasons why the Depreciation expense account must be closed at the end of the Reporting Period.
- State** one reason why the Accumulated Depreciation account is balanced at the end of the Reporting Period.

11.5 REPORTING DEPRECIATION

The Income Statement

Reporting depreciation in the Income Statement is probably the easiest part of accounting for depreciation. Because depreciation is an expense, it is reported in the Income Statement with all the 'other expenses', such as wages, advertising and rent.

Figure 11.3 *Income Statement: depreciation*

MIXWELL PAINTS		
Income Statement for 2016		
Revenue	\$	\$
Sales		210 000
Less Cost of Goods Sold		
Cost of Sales	124 000	
Buying Expenses	3 000	127 000
Gross Profit		83 000
Less Stock Loss		500
Adjusted Gross Profit		82 500
Less Other Expenses		
Wages	31 000	
Advertising	6 000	
Discount Expense	400	
Depreciation of Van	1 200	
Rent	17 000	55 600
Net Profit		26 900

Remember that it is only the depreciation expense (the amount consumed in the *current* Reporting Period) that is reported in the Income Statement. Accumulated depreciation is a negative asset, not an expense, and so must not be reported in the Income Statement.

The Balance Sheet

The first effect of depreciation on the Balance Sheet is via owner's equity. As we have already seen, depreciation expense decreases Net Profit. In terms of the Balance Sheet, this decreases owner's equity. The second effect occurs on the asset side. Accumulated depreciation reports the value of the asset that has been consumed over its life so far. It is reported directly under the asset itself, as shown in Figure 11.4.

Figure 11.4 *Balance Sheet: accumulated depreciation*

MIXWELL PAINTS		
Balance Sheet (extract) as at 31 December 2016		
Non-current assets	\$	\$
Van	32 000¹	
Less Accumulated Depreciation	2 400 ²	29 600 ³

Note that now instead of just reporting the asset as one figure, three are involved:

1 Historical Cost \$32 000

To keep the reports free from bias (and therefore Reliable), the asset must always be reported initially at its Historical Cost (its original purchase price) as this amount is verifiable by reference to the source document.

2 Accumulated depreciation \$2 400

Because some of the asset's value has been consumed, it is no longer appropriate to report it at its Historical Cost alone; in order to ensure Relevance, the Balance Sheet must also report the asset's accumulated depreciation. Accumulated depreciation represents the total value of the asset that has been consumed over its life so far: \$1 200 per year for each of the two years the asset has been under the firm's control.

3 Carrying value \$29 600

The **carrying value** is calculated by deducting any accumulated depreciation from the Historical Cost of the asset. It represents the unallocated cost of the asset; that is, the value of the asset that is yet to be consumed (and yet to be allocated as depreciation expense) plus any residual value. Because this carrying value is yet to be consumed, it represents a *future* economic benefit, which should by now be obvious as the definition of an asset!

carrying value
the value of a non-current asset that is yet to be consumed/allocated as an expense, plus any residual value

As the asset is depreciated, it will be the **accumulated depreciation** figure that **increases**, thus **decreasing** the **carrying value**. For example, the van owned by Mixwell Paints will appear in successive Balance Sheets as shown in Figure 11.5:

Figure 11.5 Balance Sheet: successive periods

MIXWELL PAINTS
Balance Sheet (extract) as at 31 December

Non-current assets	2015	2016	2017	2018
Van	32 000	32 000	32 000	32 000
Less Accumulated Depreciation	1 200	2 400	3 600	4 800
	30 800	29 600	28 400	27 200

STUDY TIP

Carrying value is also known as carrying cost, written-down value, unallocated cost and book value.

Representing depreciation graphically

In order to satisfy *Understandability*, reports must be prepared in a manner that is readily understandable by the user, with the preparation of graphs one simple strategy that can be employed. Preparing a graph can make it easier for the owner to understand both the idea of depreciation and its effect on the accounting reports. For example, Figure 11.6 shows how the depreciation expense, accumulated depreciation and carrying value could be represented graphically.

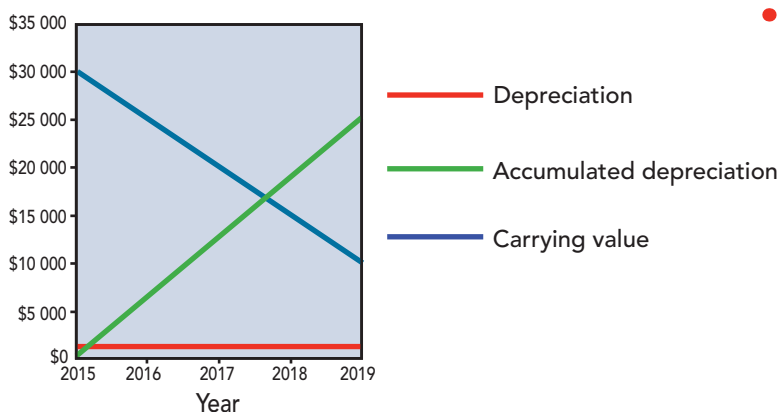


Figure 11.6

Graphing depreciation

This graph clearly shows why it is called the 'straight-line' method, as the amount of **depreciation expense** is constant every year, creating a straight line across the life of the asset.

The **accumulated depreciation** starts at zero and grows at a constant rate, increased every year by the amount of 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 depreciation expense, ending at the residual value, if the graph shows the asset's entire useful life.

REVIEW QUESTIONS 11.5

- 1 Referring to one accounting principle, **explain** why the original purchase price of a non-current asset must be disclosed in the Balance Sheet.
- 2 **Define** the term 'carrying value'.
- 3 Referring to one qualitative characteristic, **explain** why non-current assets must be reported at their carrying value in the Balance Sheet.

11.6 THE RATE OF DEPRECIATION

The formula used so far calculates the *amount* of depreciation expense, expressed in dollar terms, but depreciation can also be expressed as a *rate*: a percentage of the cost.

Depreciation rate: formula

$$\text{Depreciation rate (\% per annum)} = \frac{\text{Depreciation expense}}{\text{Historical Cost}} \times 100$$

Using the figures from the earlier example regarding the Office Furniture, the depreciation rate would be calculated as:

Historical Cost	=	\$5 000
Residual value	=	\$800
Useful life	=	3 years
Depreciation expense	=	\$1 400 per year

$$\begin{aligned} \text{Depreciation rate (\% per annum)} &= \frac{\text{Depreciation expense}}{\text{Historical Cost}} \times 100 \\ &= \frac{1\,400}{5\,000} \times 100 \\ &= 28\% \text{ per annum} \end{aligned}$$

This means 28% per annum of the asset's cost will be consumed *each year* for the three years of its life.

The more mathematically aware readers may at this point be a little puzzled: 28% for three years means only 84% of the asset's cost will be consumed; that is, 28% x 3 years = 84%. What happens to the remaining 16% of the cost? Why is it not allocated as depreciation?

The answer is **residual value**: the remaining \$800, or 16% of \$5 000, will be consumed by a different entity when it takes control of the asset, so this amount cannot be allocated as depreciation.

Calculating depreciation using the rate

In some cases, it may be the rate of depreciation that is given rather than the Historical Cost, residual value and useful life. In these cases, the depreciation expense (in dollar terms) can be calculated by simply multiplying the rate by the Historical Cost.

Depreciation expense: rate formula

Depreciation expense (\$ per annum) = Depreciation rate \times Historical Cost

On 1 July 2015, Carlton Clothing purchased shop fittings for \$9 000 (plus \$900 GST). The shop fittings are to be depreciated at 15% p.a. Balance day is 30 June 2016.

EXAMPLE

Depreciation expense (\$ per annum) = Depreciation rate \times Historical Cost
 = 15% \times \$9 000
 = \$1 350 per annum

Using the formula or the rate to calculate depreciation expense will produce exactly the same answer; the choice of method depends only on the information available.

REVIEW QUESTIONS 11.6

- 1 **Show** the formula for calculating the rate of depreciation.
- 2 **Show** the formula for calculating depreciation expense using the rate of depreciation.

11.7 THE COST OF A NON-CURRENT ASSET

As was stated at the beginning of this chapter, depreciation involves allocating the cost of a non-current asset over its useful life. So far, we have only examined assets whose cost is their purchase price. However, it is quite common for a business to modify an asset, or incur costs for its installation, that must also be included in this definition of cost. After all, if these other costs will provide a future economic benefit *over the life of the asset*, then they should be classified as non-current assets, and depreciated. The **cost of a non-current asset** is thus defined as all costs incurred in order to bring the asset into a location and condition ready for use, which will provide a benefit for the life of the asset:

The cost of a non-current asset may therefore include:

- the purchase price/supplier's price
- delivery costs
- modification costs
- installation costs.

cost of a non-current asset

all costs incurred in order to bring the asset into a location and condition ready for use, which will provide a benefit for the life of the asset.

EXAMPLE

On 1 March 2015 Danny's Donuts paid \$26 000 (plus \$2 600 GST) to purchase a new oven (Ch. 32). The payment covered the following costs:

Supplier's price for the oven	\$22 000
Installation costs	3 000
Maintenance fee	1 000 per year
GST	2 600
Total paid	<u>\$28 600</u>

We have already noted that the GST is not part of the cost of the asset, but what of the other costs?

Both the supplier's price (\$22 000) and the installation costs (\$3 000) are necessary to bring the asset into a condition and location ready for use. But just as importantly, they will not be consumed in one year, but will bring a benefit over the life of the asset. This means they must be included in the cost of the asset, which would be:

Plus	Supplier's price for the oven	\$22 000
	Installation costs	\$3 000
	Cost of oven	<u>\$25 000</u>

This figure of \$25 000 is the amount to be used as the cost in the calculation of depreciation.

The maintenance fee (\$1 000) may also be a necessary cost, but it is a yearly fee; its benefit will be consumed within a year. This means it is not part of the value of a non-current asset, but rather a current asset: Prepaid Maintenance. It should not be recorded as part of the cost of the oven, but rather in its own separate ledger account. It would then be subject to a balance day adjustment at the end of the Reporting Period to calculate the maintenance incurred. Any costs where the benefit does not extend for the life of the asset are not included in the cost of the asset, but rather treated separately as expenses or prepaid expenses.

The purchase of the oven would be recorded in the Cash Payments Journal as shown in Figure 11.7:

Figure 11.7 Cash Payments Journal: cash purchase of a non-current asset

Cash Payments Journal

Date	Details	Chq. no.	Bank	Discount Revenue	Creditors Control	Wages	Drawings	Sundries	GST
March 1	Oven /	32	28 600					25 000	2 600
	Prepaid Maintenance							1 000	
	Totals		75 000	400	24 500	19 000	3 300	26 000	2 600

This purchase would be posted to the ledger as shown below:

General Ledger

Bank (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
March 1	Balance	2 700	March 31	Cash payments	75 000
31	Cash Receipts	83 000			

Oven (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
March 31	Bank	25 000			

Prepaid Maintenance (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
March 31	Bank	1 000			

GST Clearing (A/L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
March 31	Creditors Control	700	March 1	Balance	800
	Bank	2 600	31	Bank	1 600
				Debtors Control	1 300

Remember that the payment would be recorded in the Cash Payments Journal on the date it occurred (1 March 2015), but not posted to the General Ledger until totals are calculated at the end of the month (31 March 2015).

REVIEW QUESTIONS 11.7

- 1 **Define** the term 'cost' as it refers to non-current assets.
- 2 **Identify** three costs that might be included in the cost of a non-current asset.
- 3 **Explain** why GST is excluded from the cost of a non-current asset.
- 4 **Explain** why yearly costs are excluded from the cost of a non-current asset.

STUDY TIP

Pay very careful attention to the date on which the asset is acquired, as this will determine how many months worth of depreciation need to be applied.

11.8 DEPRECIATING A NON-CURRENT ASSET FOR LESS THAN A YEAR

Because the life of the asset is usually measured in years, the formula will calculate depreciation in terms of years. If by the end of the Reporting Period the firm has had control of the asset for *less than a year*, the depreciation 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 ($\frac{1}{12}$ of a year) should be charged as an expense.

EXAMPLE

On 31 March 2015, Ferguson Plants paid \$21 000 (plus \$2 100 GST) for a new vehicle. It has an estimated useful life of eight years, at which point it will be disposed of for \$1 800. Balance day is 30 June 2015.

Yearly depreciation would be calculated as usual:

$$\begin{aligned}
 \text{Depreciation expense} &= \frac{\text{HC} - \text{RV}}{\text{Life}} \\
 &= \frac{\$21\,000 - 1\,800}{8 \text{ years}} \\
 &= \frac{\$19\,200}{8} \\
 &= \$2\,400 \text{ per annum}
 \end{aligned}$$

However, this vehicle was purchased on 31 March 2015, so at balance day (30 June 2015) the vehicle has been under the control of the business for only three months (April, May and June). As a result, only three months' worth of depreciation should be charged as an expense for the period ending 30 June 2015:

STUDY TIP

Rather than multiply by fractions, such as $\frac{1}{4}$ or $\frac{1}{2}$, it is safer to multiply by the number of months out of 12; for example, $\frac{3}{12}$ or $\frac{6}{12}$. How many months is $\frac{1}{3}$ of a year? (Did you think three? The answer is four!)

$$\begin{aligned}
 \text{Depreciation expense} &= \$2\,400 \text{ per annum} \times \frac{3}{12} \text{ months} \\
 &= \$600
 \end{aligned}$$

The depreciation expense for the three months from purchase until balance day is \$600, and only this amount should be reported in the Income Statement for the year ended 30 June 2015. The following year, the firm will have control of the vehicle for the full 12 months, and so for the year ended 30 June 2016 depreciation expense should be reported as \$2 400.

REVIEW QUESTIONS 11.8

- Referring to one accounting principle, **explain** why it is not always accurate to report depreciation expense per annum.
- Explain** the process for calculating depreciation of an asset when the firm has had control of the asset for less than a year.

11.9 USE OF ESTIMATES IN CALCULATING DEPRECIATION

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. 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 vital 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: not accounting for any depreciation at all would be more incorrect than accounting for depreciation using estimates.

REVIEW QUESTIONS 11.9

- 1 **Explain** how depreciation can undermine the *Reliability* of accounting reports.
- 2 **Explain** how depreciation ensures *Relevance* in the:
 - Income Statement
 - Balance Sheet.

WHERE HAVE WE BEEN?

- Depreciation is the allocation of the cost of a non-current asset over its useful life.
- The purpose of depreciation is to ensure that an accurate profit is calculated by comparing revenues earned against expenses incurred in the current Reporting Period.
- The straight-line method assumes that non-current assets contribute evenly to revenue over their life. As a result, depreciation expense is allocated even over the asset's life.
- The cost of an asset includes all costs incurred in order to bring the asset into a location and condition ready for use, which will provide a benefit for the life of the asset.
- Because residual value and useful life are estimates, depreciation means that the reports will be less free from bias (*Reliability*).
- Without depreciation, the reports will not include all information that is useful for decision-making (*Relevance*).

EXERCISE 11.1

 page 224

CALCULATION OF DEPRECIATION

On 1 July 2014, Shovel and Shift purchased new Office Furniture for \$15 000 plus GST. It is expected that the office furniture will have a useful life of five years, and will be disposed of at that time for \$3 000.

Required

- a **Define** the term 'depreciation'.
- b **Calculate** depreciation of the office furniture for the year ended 30 June 2015.
- c **Explain** why the GST paid on the purchase of the office furniture is **not** included in the calculation of depreciation.

EXERCISES

EXERCISE 11.2

CALCULATION OF DEPRECIATION

 page 225

On 1 July 2014, Fragrant Perfumes purchased shelving for \$30 000 plus \$3 000 GST. The shelving has an estimated useful life of eight years, with a residual value of \$6 000.

Required

- Referring to one accounting principle, **explain** why it is necessary to depreciate non-current assets.
- Calculate** depreciation of the shelving for the year ended 30 June 2015.
- Explain** why the residual value of the shelving is deducted from its Historical Cost in the calculation of depreciation expense.
- Explain** the effect of depreciation on the firm's bank balance.

EXERCISE 11.3

RECORDING DEPRECIATION

 page 226

On 1 July 2014, Roamin' Blinds purchased new blind-cutting equipment, paying \$13 200 cash including GST. The equipment is expected to last for six years, at which time it will have a residual value of \$3 000. On 30 June 2015, the accounting department received Memo 27 to say that depreciation on the equipment had not yet been recorded.

Required

- Calculate** depreciation of the equipment for the year ended 30 June 2015.
- Show** the General Journal entries necessary to record depreciation of equipment for the year ended 30 June 2015.
- Post** the General Journal entries (from part 'b') to the relevant accounts in the General Ledger of Roamin' Blinds.
- Show** how Equipment would be reported in the Balance Sheet of Roamin' Blinds as at 30 June 2015.
- Referring to one qualitative characteristic, **explain** why the asset must be shown in the Balance Sheet at its carrying value.

EXERCISE 11.4

DEPRECIATION AND THE BALANCE SHEET

 page 228

Jungle Jane sells gym equipment. Its owner has presented the following extract from the firm's Balance Sheet:

JUNGLE JANE		
Balance Sheet (extract) as at 30 June 2014		
Non-Current Assets	\$	\$
Office Furniture	29 000 ¹	
– Accumulated Depreciation	9 000 ²	20 000 ³

Additional information:

- The Office Furniture has an estimated residual value of \$2000.
- The Income Statement for the year ended 30 June 2015 showed Depreciation of Office Furniture of \$3 000.

Required

- a Explain** what is represented by the amounts labelled 1, 2 and 3.
- b Show** the General Journal entries necessary to record depreciation of office furniture for the year ended 30 June 2015. (Narration is **not** required.)
- c Post** the General Journal entries (from part 'b') to the relevant accounts in the General Ledger.
- d Show** how Office Furniture would be reported in the Balance Sheet as at 30 June 2017.
- e Calculate** the useful life of the Office Furniture.

EXERCISE 11.5 page 230**DEPRECIATION RATE**

On 1 July 2014, Knight's Prawns purchased new cabinets for \$1 800 plus \$180 GST. It is decided that the cabinets will be depreciated using the straight-line method at 20% per annum (Memo 44).

Required

- a Calculate** depreciation of the cabinets for the year ended 30 June 2015.
- b Show** the General Journal entries necessary to record depreciation of cabinets for the year ended 30 June 2015.
- c Show** how the Depreciation of Cabinets and Accumulated Depreciation of Cabinets accounts would appear in the General Ledger after all balance day adjustments, and closing and balancing entries have been made.
- d State** the effect on the accounting equation as at 30 June 2015 if the adjustment for depreciation was **not** made.
- e Show** how the Cabinets would be reported in the Balance Sheet as at 30 June 2016.

EXERCISE 11.6 page 232**COST OF A NON-CURRENT ASSET**

On 1 July 2014, Eileen's Ladders purchased a computer-linked cash register system for \$10 000 plus GST, and paid an additional cost of \$1 200 plus GST for an annual software licence fee. Eileen decided to use the straight-line method of depreciation, determining that the system will have a useful life of five years and a residual value of \$1 000.


Required

- a Explain** why the software licence fee should **not** be included in the cost of the cash register.
- b Show** how the software licence fee would be reported in the Balance Sheet as at 1 July 2014.
- c Calculate** depreciation of the cash register for the year ended 30 June 2015.
- d Calculate** the rate of depreciation on the cash register.
- e Show** how the Cash Register would be reported in the Balance Sheet as at 30 June 2015.
- f State** the effect of the depreciation of the cash register on the accounting equation of Eileen's Ladders as at 30 June 2015.

EXERCISE 11.7**COST OF AN NCA, DEPRECIATION FOR LESS THAN ONE YEAR**

On 1 April 2015, Matt's Mats paid cash for a new delivery van. The document for the purchase is shown below:

TAX INVOICE: X36



Dan's Vans
105 Blackburn Rd
Nunawading VIC 3110
ABN: 173 254 009

CASH SALE: Matt's Mats, Naismith St, Blackburn VIC 3130 ABN: 90 361 253 007		
	Details	Total
April 1 2015	Delivery van Fitting of shelves Service contract (12 months) GST	21 000 1 500 1 200 2 370
	Total price	\$26 070
	Amount received	\$26 070
	Balance owing	nil

Matt expects to have the delivery van for five years and then dispose of it for \$6 500.

Required

- a Calculate** the cost of the delivery van.
- b** Referring to your answer to part 'a', **explain** your treatment of 'fitting of shelves'.
- c Calculate** depreciation of the van for the year ended 30 June 2015.
- d Calculate** the rate of depreciation on the van.
- e Show** how the service contract would be reported in the Balance Sheet of Matt's Mats as at 30 June 2015.
- f Show** how the Van would be reported in the Balance Sheet of Matt's Mats as at 30 June 2016.

EXERCISE 11.8

DEPRECIATION FOR LESS THAN ONE YEAR

 page 235

Scratch and Dent Discounters present the following extract from their Balance Sheet as at 1 July 2014:

SCRATCH AND DENT DISCOUNTERS

Balance Sheet (extract) as at 1 July 2014

Non-Current Assets	\$	\$
Office Furniture	8 000	
– Accumulated Depreciation	1 600	6 400

Additional information:

- A specially designed office chair was purchased on 31 January 2015 for \$1 200 plus GST.
- Office Furniture is depreciated at 10% per annum using the straight-line method (Memo 35).

Required

- Referring to one accounting principle, **explain** why the Office Furniture should be depreciated.
- Calculate** depreciation of the Office Furniture for the year ended 30 June 2015.
- Show** the General Journal entries necessary to record depreciation of office furniture for the year ended 30 June 2015.
- Show** how the Depreciation of Office Furniture and Accumulated Depreciation of Office Furniture accounts would appear in the General Ledger after all closing and balancing entries are made.
- Show** how Office Furniture would be reported in the Balance Sheet of Scratch and Dent as at 30 June 2015.

EXERCISE 11.9

DEPRECIATION FOR LESS THAN A YEAR

 page 237

As at 30 June 2014, Frost Fridges had shop fittings that had been purchased for \$20 000, but had a current carrying value of \$16 000. On 31 March 2015, \$5 500 including GST was paid for additional shop fittings. Depreciation is allocated using the straight-line method at the rate of 10% per annum (Memo 23).

Required

- Calculate** the accumulated depreciation of the shop fittings as at 30 June 2014.
- Calculate** depreciation of the shop fittings for the year ended 30 June 2015.
- Show** the General Journal entries necessary to record depreciation of shop fittings for the year ended 30 June 2015.
- Show** how the Depreciation of Shop Fittings and Accumulated Depreciation of Shop Fittings accounts would appear in the General Ledger after all closing and balancing entries are made.
- Referring to one accounting principle, **explain** why the original purchase price of the asset is disclosed in the Balance Sheet.
- Show** how the Shop Fittings would be reported in the Balance Sheet of Frost Fridges as at 30 June 2015.

EXERCISE 11.10

REPORTING DEPRECIATION

 page 239

Tim Barr owns Hack and Saw, a store specialising in the sale of saws, chainsaws and axes. The business has provided its Pre-adjustment Trial Balance as at 30 June 2015:

HACK AND SAW

Pre-adjustment Trial Balance as at 30 June 2015

Account	Debit	Credit
Accumulated Depreciation – Display Equipment		12 100
Administrative Expenses	10 500	
Bank		5 300
Capital – Barr		68 000
Cost of Sales	80 000	
Credit Sales		160 000
Debtors Control	17 000	
Display Equipment	49 000	
Drawings	16 000	
GST Clearing		400
Interest Expense	5 500	
Loan – DR Finance (repayable \$500 per month)		35 000
Prepaid Advertising	2 800	
Rent Expense	26 000	
Stock Control	38 000	
Wages	36 000	
Totals	\$280 800	\$280 800

Additional information:

- A physical stocktake on 30 June 2015 showed \$37 100 stock on hand.
- The display equipment is to be depreciated at 15% p.a.
- A seven-month advertising campaign was paid in advance on 1 February 2015.
- A payment of \$1 500 administrative expenses has been incorrectly posted to Wages.
- Reports are prepared yearly.

Required

- Explain** the purpose of balance day adjustments.
 - Show** the General Journal entries necessary to record the additional information. (Narrations are **not** required.)
- * **Prepare** a Post-adjustment Trial Balance for Hack and Saw as at 30 June 2015.
 - * **Show** the General Journal entries necessary to close the ledger and transfer Drawings to the Capital account. (Narrations **not** required.)
 - * **Prepare** an Income Statement for Hack and Saw for the year ended 30 June 2015.
 - * **Assess** the mark-up applied by Hack and Saw for the year ended 30 June 2015.
 - * **State** two actions Hack and Saw could take to improve Net Profit without changing Adjusted Gross Profit.
 - * **Prepare** a classified Balance Sheet for Hack and Saw as at 30 June 2015.
 - * **Discuss** whether the amount of drawings taken by the owner in the year ended 30 June 2015 is appropriate.



EXERCISE 11.11

REPORTING DEPRECIATION

 page 243

Nguyen Ski Gear has provided the following Pre-adjustment Trial Balance as at 31 December 2015:

NGUYEN SKI GEAR
Pre-adjustment Trial Balance as at 31 December 2015

Account	Debit	Credit
Accumulated Depreciation – Vehicle		8 000
Bank	2 400	
Capital – Nguyen		32 620
Cost of Sales	48 000	
Creditors Control		18 000
Debtors Control	16 000	
Discount Expense	820	
Discount Revenue		300
Drawings	14 000	
GST Clearing		700
Interest Expense	1 400	
Loan – NAB (repayable \$9 000 p.a.)		21 000
Prepaid Rent	18 000	
Sales		120 000
Stock Control	24 000	
Vehicle	40 000	
Wages	36 000	
Totals	\$200 620	\$200 620

Additional information:

- A physical stocktake on 31 December 2015 showed \$24 700 stock on hand.
- The vehicle is to be depreciated at 10% p.a.
- As at 31 December 2015, \$900 wages were still owing to employees.
- Prepaid rent as at 31 December 2015 was \$6 000.
- The last reports were prepared on 30 June 2015.

Required

- Show** the General Journal entries necessary to record the additional information. (Narrations are **not** required.)
- * **Prepare** a Post-adjustment Trial Balance for Nguyen Ski Gear as at 31 December 2015.
- Referring** to one accounting principle, **explain** the purpose of closing entries.
- Show** the General Journal entries necessary to close the ledger and transfer Drawings to the Capital account. (Narrations **not** required.)
- * **Prepare** an Income Statement for Nguyen Ski Gear for the six months ended 31 December 2015.
- Explain** what the Income Statement reveals about the reputation of Nguyen Ski Gear.

- * **g Prepare** a classified Balance Sheet for Nguyen Ski Gear as at 31 December 2015.
h Referring to your answer to part 'g', **identify** one item that can be used to support the view that the firm's financial position is sound. **Justify** your answer.

EXERCISE 11.12



page 247

ACCOUNTING FOR NON-CURRENT ASSETS

On 1 March 2015, the shop fittings of Funk Fashions were destroyed in a fire, so the owner (Colin Miller) contributed some fittings that he had purchased for his own home (Memo 6). Colin had purchased the fittings in 2006, paying \$12 000, but at the end of February 2015 had them professionally valued at \$9 400. He calculates that they will be of use for four years, and by the end of their useful life he expects to sell them for \$1 000.

Required

- Show** the General Journal entries necessary to record the contribution of the shop fittings by the owner on 1 March 2015.
- Referring to one qualitative characteristic, **justify** your valuation of the shop fittings as at 1 March 2015.
- Calculate** depreciation of the shop fittings for the year ended 30 June 2015.
- Show** the General Journal entries necessary to record Depreciation of Shop Fittings for the year ended 30 June 2015. (Narration is **not** required.)
- Show** how the following accounts would appear in the General Ledger as at 30 June 2015, after all balancing and closing entries have been made: Shop Fittings, Depreciation of Shop Fittings, and Accumulated Depreciation of Shop Fittings.
- Show** how Shop Fittings would appear in the Balance Sheet of Funk Fashions as at 30 June 2016 and 2017.

EXERCISE 11.13



page 249

ACCOUNTING FOR NON-CURRENT ASSETS

On 31 October 2014, Mark Rendle purchased a new delivery van for his business, Rendle Clothing. The van was advertised for \$24 000 plus GST, but Mark bargained with the salesperson who agreed to provide the van and \$500 worth of on-road costs for \$24 200 including GST. Installation of heavy-duty suspension cost a further \$900 plus GST, and Mark has insured the van for fire and theft with OOMY Insurance at an annual cost of \$1 200 plus GST. The van is expected to have a useful life of five years, after which Mark can trade it in on a new one. It will have a trade-in value of approximately \$4 900.

Required

- Calculate** the cost of the van purchased on 31 October 2014.
- Referring to your answer to part 'a', **explain** your treatment of:
 - the heavy-duty suspension
 - insurance.
- Referring to one accounting principle, **explain** why the entire cost of the van cannot be treated as an expense in the year ended 30 June 2015.
- Calculate** depreciation of the van for the year ended 30 June 2015 using the straight-line method.
- Show** the General Journal entries necessary to record the depreciation of the van for the year ended 30 June 2015. (Narration is **not** required.)
- Referring to one qualitative characteristic, **explain** why the van should **not** be valued only at its Historical Cost in the Balance Sheet as at 30 June 2015.
- In July 2015, the delivery driver fell ill, so the van was not used for deliveries for two months. **Explain** whether the van should be depreciated for July and August 2015.

Where are we headed?

After completing this chapter, you should be able to:

- **explain** the need to report for cash
- **prepare** a Statement of Receipts and Payments
- **explain** the role of cash journals in reporting for cash
- **define** the terms 'cash surplus' and 'cash deficit'
- **define** and **identify** Operating, Investing and Financing cash flows
- **prepare** a Cash Flow Statement
- **explain** the uses of the Cash Flow Statement
- **explain** the difference between cash and profit, and **identify** reasons why a firm's cash and profit performance may differ.

..... CHAPTER 12

THE CASH FLOW STATEMENT

KEY TERMS

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

- Statement of Receipts and Payments
- cash surplus
- cash deficit
- Cash Flow Statement
- Operating Activities
- Investing Activities
- Financing Activities.

12.1 THE NEED TO REPORT FOR CASH

Accounting exists as an information system. As part of that system, accounting reports have the function of communicating financial information to the owner to assist decision-making. The last few chapters (from determining profit or loss in Chapter 9 to depreciation in Chapter 11) have been concerned mainly with reporting for profit; and given that earning a profit is the primary reason for being in business, this is certainly a valid concern. After all, owners must have accurate information about revenues and expenses if they are to improve the trading performance of their firms.

However, many profitable businesses still fail because they have not paid sufficient attention to managing their cash. Many small business owners (incorrectly) assume that cash and profit are the same thing, and that if they can sell their products at a profit then they will automatically have cash available to pay their debts. Unfortunately, this is not the case. Cash and profit are different measures of performance, and there are many possible reasons why a firm that is earning a profit can still suffer from a lack of cash.

Given that cash and profit are different, it is important that the owner is provided with different information on both items. (If you are still questioning whether cash and profit are actually different things, skip ahead to '12.5 Cash versus profit' on page 273 to make sure.) Without information on both cash and profit, the owner will not be able to manage both effectively. Chapter 9 considered reporting for profit; this chapter considers reporting for cash.

Cash and profit are different measures of performance, and there are many possible reasons why a firm that is earning a profit can still suffer from a lack of cash



REVIEW QUESTIONS 12.1

- 1 **Explain** the basic function of all accounting reports.
- 2 **Explain** why it is important to report on both cash and profit.

Statement of Receipts and Payments

an accounting report that details cash received and paid during a Reporting Period, and the change in the firm's bank balance over that period

12.2 THE STATEMENT OF RECEIPTS AND PAYMENTS

The most basic way of reporting on cash is to detail cash *received* and cash *paid* during the period, and then identify the change in the firm's bank balance. This is achieved by preparing a **Statement of Receipts and Payments**.

A typical Statement of Receipts and Payments would look like the one shown in Figure 12.1.

In common with all accounting reports, this statement identifies the *who* (Makris Manchester), the *what* (Statement of Receipts and Payments) and the *when* (the quarter ended 31 December 2015) about which it is reporting. As with the Income Statement, the *when* refers to a period of more than one day, and so states that it is *for* the quarter (rather than *as at*, which applies to the Balance Sheet).

Figure 12.1 Statement of Receipts and Payments

MAKRIS MANCHESTER

Statement of Receipts and Payments for the quarter ended 31 December 2015

Cash Receipts	\$	\$
Cash Sales	43 000	
Receipts from Debtors	41 500	
Loan – Aust. Bank	25 000	
Capital Contribution	5 000	
GST Received	4 300	118 800
Less Cash Payments		
Payments to Creditors	61 400	
Wages	31 000	
Drawings	12 700	
GST Paid	1 170	
Electricity	500	
Prepaid Insurance	1 200	
Shelving	10 000	
Interest Expense	600	
Loan – Aust. Bank	2 000	
Office Equipment	4 500	125 070
Surplus (Deficit)		(6 270)
Add Bank Balance at start (1 October 2015)		13 500
Bank Balance at end (31 December 2015)		7 230

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.

Role of the cash journals

The information reported in the statement above could be garnered directly from the source documents (cash receipts and cheque butts), but this information would not be classified or summarised in any way. Instead, the Statement of Receipts and Payments is based on the cash journals: the Cash Receipts Journal provides the information relating to cash received, and the Cash Payments Journal details cash paid.

Further, the Statement of Receipts and Payments does not report individual amounts, but rather (column) totals, such as *total* cash received from debtors and *total* cash sales, or *total* cash paid to creditors and *total* cash drawings. The obvious exception is the sundries column. By definition, the transactions recorded in this column are infrequent, and so must be reported individually.

Surplus (deficit)

By deducting payments from receipts, the **cash surplus** or **cash deficit** can be calculated:

$$\text{Surplus (Deficit)} = \text{Cash Receipts} - \text{Cash Payments}$$

cash surplus
an excess of cash receipts
over cash payments,
leading to an increase in
the bank balance

cash deficit
an excess of cash
payments over cash
receipts, leading to a
decrease in the bank
balance

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

REVIEW QUESTIONS 12.2

- 1 **Explain** the function of a Statement of Receipts and Payments.
- 2 **Explain** why the information reported in the Statement of Receipts and Payments is taken from the cash journals rather than directly from the source documents.
- 3 **Define** the following terms:
 - cash surplus
 - cash deficit.
- 4 Referring to Figure 12.1, **state** one reason why the owner might **not** be concerned about the firm's Cash Position.
- 5 Referring to Figure 12.1, **explain** one reason why the owner should be concerned about the firm's cash performance.

Cash Flow Statement

an accounting report that details all cash inflows and outflows from Operating, Investing and Financing activities, and the overall change in the firm's cash balance

Operating activities

cash flows related to day-to-day trading activities

Investing activities

cash flows related to the purchase and sale of non-current assets

Financing activities

cash flows related to changes in the financial structure of the firm

STUDY TIP

Given that Unit 3 of this course does not include the sale of non-current assets, the only Investing activity we are likely to see in the mid-year exam is the cash purchase of a non-current asset.

12.3 THE CASH FLOW STATEMENT

While the Statement of Receipts and Payments is a good starting point for assessing changes in the firm's Cash Position, it is somewhat limited in its uses, because it only classifies the cash transactions as receipts or payments. Information about cash is more useful for decision-making if it classifies common sources and uses of cash, and separately identifies their effect on the bank balance. The **Cash Flow Statement** reports on cash inflows (cash received) and cash outflows (cash paid), separately identifying cash flows relating to Operating activities, Investing activities and Financing activities.

Operating activities

Operating activities refers to all cash flows related to the firm's day-to-day trading activities. *Operating inflows* may include cash sales, receipts from debtors, GST received, and any other cash revenues. *Operating outflows* may include all payments related to expenses (including interest), payments to creditors, GST paid, prepaid expenses, and any payments for expenses incurred in previous periods (such as accrued wages).

Investing activities

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 paid for the purchase of a non-current asset (*Investing outflow*).

Financing activities

Financing activities are cash flows that are the result of changes in the firm's financial structure. In essence, this will mean only cash transactions that change loans and owner's equity, such as receiving or repaying the principal of a loan, or cash contributions or drawings by the owner.

Using the same information that was reported in the Statement of Receipts and Payments in Figure 12.1, the Cash Flow Statement for Makris Manchester would appear as is shown in Figure 12.2:

Figure 12.2 Cash Flow Statement

MAKRIS MANCHESTER
Cash Flow Statement for the quarter ended 31 December 2015

	\$	\$
CASH FLOW FROM OPERATING ACTIVITIES		
Cash Inflows		
Cash Sales	43 000	
Receipts from Debtors	41 500	
GST Received	4 300	88 800
Less Cash Outflows		
Payments to Creditors	61 400	
Wages	31 000	
GST Paid	1 170	
Electricity	500	
Prepaid Insurance	1 200	
Interest Expense	600	95 870
Net Cash Flows from Operations		(7 070)
CASH FLOW FROM INVESTING ACTIVITIES		
Cash Inflows		
Nil		0
Less Cash Outflows		
Shelving	10 000	
Office Equipment	4 500	14 500
Net Cash Flows from Investing Activities		(14 500)
CASH FLOW FROM FINANCING ACTIVITIES		
Cash Inflows		
Loan – Aust. Bank	25 000	
Capital Contribution	5 000	30 000
Less Cash Outflows		
Drawings	12 700	
Loan – Aust. Bank	2 000	14 700
Net Cash Flows from Financing Activities		15 300
Net Increase (Decrease) in Cash Position		(6 270)
Add Bank Balance at start (1 October 2015)		13 500
Bank Balance at end (31 December 2015)		7 230

STUDY TIP

Resist the temptation to classify interest as 'Financing'. Interest is a payment for an expense, so interest is always 'Operating'.

STUDY TIP

If no inflow exists, this information may be omitted.

STUDY TIP

If there are insufficient lines to include the headings 'Cash inflows' or 'Cash outflows', items may just be listed, but outflows should be in brackets.

Net increase (decrease) in Cash Position

The net increase (or, in this case, decrease) in Cash Position (of **\$6 270**) is calculated by adding together the Net Cash Flows from each activity:

	Net Cash Flows from Operations:	(\$7 070)
+	Net Cash Flows from Investing Activities:	(\$14 500)
+	Net Cash Flows from Financing Activities:	\$15 300

STUDY TIP

When classifying cash flows, work from the bottom up: identify the Financing and Investing activities first, so you know that the remainder must be Operating activities.

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: **\$7 230**. After all, both statements report exactly 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.

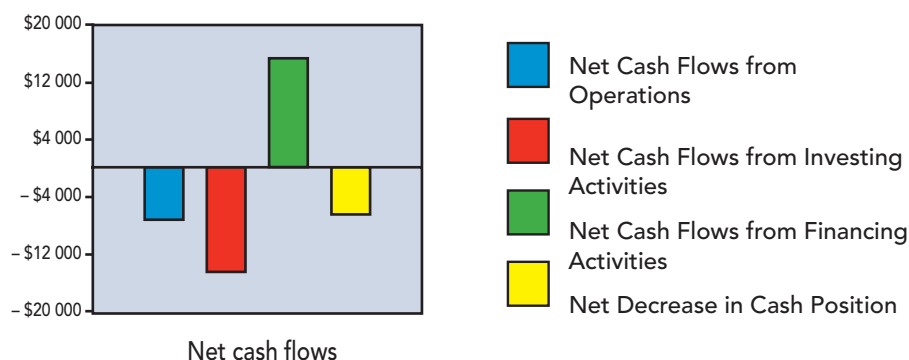
The specific uses of a Cash Flow Statement are:

- *To aid decision-making about the firm's cash activities by detailing the sources and uses of cash in a particular period.* In particular, the owner would want to assess whether the business is generating enough cash from its Operating activities to fund its Investing and Financing activities. A firm with negative Net Cash Flows from Operations (such as Makris Manchester in Figure 12.2) will be unable to meet its other payments without contributions from the owner or external finance.
- *To assess the firm's performance in meeting its cash targets.* The Cash Flow Statement can be compared against budgeted (or expected) performance, as shown in the Budgeted Cash Flow Statement, which would have been prepared in advance. This comparison will highlight where performance was better or worse than expected. Corrective action can then be taken. (This will be explored in greater detail in Chapter 17.)
- *To assist in planning for future cash activities.* By providing a basis for the next budget, the Cash Flow Statement will aid in the setting of targets for the future. This may include cash received from sales or debtors, payments for stock or expenses, cash purchases of non-current assets, cash drawings, and repayment of loans. (This will be explored in more detail in Chapter 17.)
- *To facilitate the calculation of financial indicators for analysis and interpretation.* These indicators can be used not only to uncover what has happened, but also to help explain why. (This will be covered in Chapter 19.)

Graphing cash flows

The *Understandability* of the Cash Flow Statement may be enhanced further if Net Cash Flows – from Operations, Investing activities and Financing activities – are represented graphically. Figure 12.3 shows how the cash flows of Makris Manchester for the quarter ended 31 December 2015 could be represented:

Figure 12.3 Graphing Net Cash Flows



From this graph it is clear that cash flows are negative for both **Operating** and **Investing** activities, but that **Financing** activities have made a significant contribution to cash on hand. However, the overall result is negative; there has been a *Net Decrease in Cash Position*. This means there is less cash on hand.

REVIEW QUESTIONS 12.3

- 1 **Define** the following terms as they relate to the Cash Flow Statement:
 - Operating activities
 - Investing activities
 - Financing activities.
- 2 **Explain** one reason why it may be more beneficial to prepare a Cash Flow Statement than just a Statement of Receipts and Payments.
- 3 **Explain** how the preparation of a Cash Flow Statement can assist in decision-making.
- 4 **Explain** how the preparation of a Cash Flow Statement can assist in planning for the future.
- 5 Referring to Figure 12.2:
 - a **Explain** one reason why the owner might be concerned about the firm's Net Cash Flows from Operations.
 - b **Discuss** whether the firm's Financing activities will have a positive or negative effect on its future cash activities.
- 6 Referring to Figure 12.3, **explain** one way the owner might use this graph to aid decision-making.

12.4 USING THE CASH JOURNALS

When using the cash journals to prepare the Cash Flow Statement, it is important to remember that not all the information recorded in each journal relates to an actual cash flow. Some care must be taken to ensure that only cash flow information is reported in the Cash Flow Statement.

Cash Receipts Journal

The Cash Receipts Journal shows all *cash inflows*, but also other information that does not involve cash.

Williams Windscreens has provided the following Cash Receipts Journal (totals only) for December 2015:

Cash Receipts Journal

Date	Details	Receipt number	Bank	Discount Expense	Debtors Control	Cost of Sales	Sales	Sundries	GST
	Capital							30 000	
	Totals		70 700	600	21 500	10 250	18 000	30 000	1 800

EXAMPLE

The figure for total cash received is shown in the Bank column (as \$70 700), with most of the other columns showing the sources of that cash. However, not all of the other column totals refer to cash flows:

- **Cost of Sales: \$10 250**

This column does not record a *cash* flow, but rather a *stock* flow; it records the cost price of stock sold, rather than the cash received from the sale. This figure should *not* be reported in the Cash Flow Statement, as it does not involve cash.

- **Debtors Control: \$21 500** and **Discount Expense: \$600**

Remember that the **Debtors Control** column records the **total** amount by which debtors will decrease and, in most cases, this figure will comprise some cash, but also some **discount expense**. However, the Cash Flow Statement only reports cash flows – specifically, cash **Receipts from Debtors**. As a result, the **discount expense (\$600)** must be *deducted* from the figure in the **Debtors Control** column (**\$21 500**) to determine **receipts from debtors**:

STUDY TIP

Discount expense is not a cash flow; it is actually the *absence* of a cash flow – an amount that the debtors did *not* have to pay.

$$\begin{aligned}
 \text{Receipts from Debtors} &= \text{Debtors Control} - \text{Discount Expense} \\
 &= \$21\,500 - \$600 \\
 &= \$20\,900
 \end{aligned}$$

The only cash flow is **Receipts from Debtors** of \$20 900, so only this amount should be reported in the Cash Flow Statement.

Cash Payments Journal

The issues relating to the Cash Payments Journal are a little simpler. The Cash Payments Journal shows all *cash outflows*, and the only real issue is the treatment of payments to creditors.

EXAMPLE

Williams Windscreens has provided the following Cash Payments Journal for December 2015:

Cash Payments Journal

Date	Details	Cheque number	Bank	Discount Revenue	Creditors Control	Stock Control	Wages	Sundries	GST
Dec. 31	Advertising							1 300	
	Office Supplies							200	
	GST Clearing							900	
	Vehicle							32 000	
	Drawings							400	
	Loan – Q Bank							1 500	
	Totals		\$ 94 250	300	26 000	24 000	2 500	36 300	5 750

The figure for total cash paid is shown in the Bank column (as \$94 250), with most of the other columns showing the uses of that cash. However, not all of the other column totals refer to cash flows:

- **Creditors Control: \$26 000** and **Discount Revenue: \$300**

The **Creditors Control** column includes both the cash **payments to creditors** and the **discount revenue**, but only the cash **paid** should be reported in the Cash Flow Statement. As with receipts from debtors, the discount must be deducted to determine the cash flow:

Payments to Creditors	=	Creditors Control	–	Discount Revenue
	=	\$26 000	–	\$300
	=	\$25 700		

The only cash flow is **Payments to Creditors** of **\$25 700**, so only this amount should be reported in the Cash Flow Statement.

GST paid and received

All cash transactions relating to GST must be reported as Operating cash flows, but there is an important difference in the reporting of the GST paid and received on everyday purchases and sales, and the GST paid to or received from *the ATO*.

In the Cash Receipts Journal, the GST column records the GST received from cash sales (in this example, \$1 800), and so should simply be reported as GST received. (GST collected is also acceptable.) However, as an infrequent cash receipt, a GST refund from the ATO would be recorded in the Sundries column. This amount is still an Operating inflow, but as it comes from a different source – the ATO rather than customers – it must be reported separately in the Cash Flow Statement as GST refund. Remember that GST received from sales represents tax collected by the firm on behalf of the government, which increases the liability owed to the ATO. If GST refund is confused with GST received from sales, the firm would owe the refund to the ATO.

The same principle applies to GST payments recorded in the Cash Payments Journal. The GST paid to suppliers (\$5 750) is recorded in the GST column, and can be reported as GST paid. However, GST payments recorded in the Sundries column (\$900) are made to clear a GST liability with the ATO, and so must be reported separately as **GST settlement**. Both payments relate to GST, but are recorded and reported separately as they are paid to different entities. This means there are four potential cash flows related to GST:

Operating inflows	Operating outflows
GST received	GST paid
GST refund	GST settlement

GST paid and GST received will be reported each period, but not every Cash Flow Statement will need to include all four GST items, as GST refund or GST settlement are unlikely to occur every month.

The Cash Flow Statement for Williams Windscreens for December 2015 would thus be:

WILLIAMS WINDSCREENS
Cash Flow Statement for December 2015

	\$	\$
CASH FLOW FROM OPERATING ACTIVITIES		
Cash Inflows		
Cash Sales	18 000	
Receipts from Debtors	20 900	
GST Received	1 800	40 700
Less Cash Outflows		
Payments to Creditors	25 700	
Cash Purchase of Stock	24 000	
Wages	2 500	
GST Paid	5 750	
Advertising	1 300	
Office Supplies	200	
GST Settlement	900	60 350
Net Cash Flows from Operations		(19 650)
CASH FLOW FROM INVESTING ACTIVITIES		
Cash Outflows		
Vehicle		32 000
Net Cash Flows from Investing Activities		(32 000)
CASH FLOW FROM FINANCING ACTIVITIES		
Cash Inflows		
Capital Contribution		30 000
Less Cash Outflows		
Loan – Q Bank	1 500	
Drawings	400	1 900
Net Cash Flows from Financing Activities		28 100
Net Increase (Decrease) in Cash Position		(23 550)
Add Bank Balance at start (1 December 2015)		29 000
Bank Balance at end (31 December 2015)		5 450

REVIEW QUESTIONS 12.4

- 1 **Explain** why Cost of Sales is not reported in the Cash Flow Statement.
- 2 **State** one reason why the total of the Debtors Control column of the Cash Receipts Journal may not represent cash received from debtors.
- 3 **Show** how receipts from debtors is calculated when discount expense has been recorded in the Cash Receipts Journal.
- 4 **Explain** why the total of the Creditors Control column of the Cash Payments Journal is not reported in the Cash Flow Statement.
- 5 **Identify** the four GST items that may be reported in the Cash Flow Statement.

12.5 CASH VERSUS PROFIT

The introduction to this chapter highlighted the fact that many profitable small businesses still end up failing, largely due to an inability to manage cash effectively. It is all too common to hear of businesses that are selling their products at a profit, but end up being unable to pay their debts because they can't manage their cash, and ultimately end up going out of business.

But how can this be? How can a firm that is earning a profit suffer from a lack of cash to pay its bills? Conversely, how can a firm that is trading at a loss still boast a healthy bank balance?

The simple answer is that cash and profit are different resources, and business owners need to understand this difference in order to manage both effectively. The change in a firm's bank balance is calculated by comparing **cash inflows** and **cash outflows** in a period, whereas profit is determined by comparing **revenues earned** and **expenses incurred** in that period and, as we have seen a number of times, these items are not necessarily the same. The main differences are:

- some **cash items** do not affect **profit**
- some **profit items** do not affect **cash**
- some items affect both cash and profit, but by differing amounts.

Cash items that do not affect profit

Some items are reported only in the **Cash Flow Statement**, as they only affect cash on hand; because they are not revenues or expenses, they are not reported in the Income Statement.

Some **cash inflows** are not revenues at all. Capital contributions and loans received are cash inflows that increase Bank, but are not revenues and so have no effect on profit. Items such as these will explain why a firm has been able to generate an increase in its cash balance even if it has incurred a Net Loss.

Similarly, some **cash outflows** are not expenses. Cash drawings, loan repayments and cash outflows for non-current assets are payments that will decrease Bank, but are not expenses and so leave profit unchanged. This may explain why a firm has suffered a decrease in cash despite earning a profit.

Cash inflows that are not revenues	Cash outflows that are not expenses
Capital contribution	Cash drawings
Loan received	Loan repayments
	Cash payments for non-current assets
GST received (including GST refund)	GST paid (including GST settlement)

In the case of GST cash flows, if the total GST received (including any GST refund) is greater than the total GST paid (including any GST settlement), there will be an increase in cash; if the opposite occurs, there will be a decrease in cash. In either case, there will be no effect on profit, as GST is neither a revenue nor an expense.

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**.

STUDY TIP

Although these are the general reasons why cash and profit performance may differ, they are not nearly specific enough in an exam situation. Refer to the specific examples below.

STUDY TIP

Except for GST, these differences would be reported as either Investing or Financing activities in the Cash Flow Statement: this is the best place to start when looking for reasons why cash and profit results are different.

First, some **revenues** are not cash inflows. Stock gain is a good example, as it is a revenue that increases profit, but as it represents a gain of stock, not cash, it will not affect cash on hand. This may explain why a firm can earn a profit, but still suffer a decrease in cash.

On the other hand, some **expenses** are not cash outflows and, as a result, will decrease profit, while leaving cash unchanged. Depreciation, bad debts and stock loss all fall into this category. Expenses such as these may explain why a firm can generate more cash without earning a profit.

STUDY TIP

More examples of this kind will come to light in Unit 4.

Revenues that are not cash inflows	Expenses that are not cash outflows
Stock gain	Stock loss
	Bad debts
	Depreciation

Items that affect both profit and cash

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, 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 flow 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 firm may have more profit than 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 for stock

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 payments to creditors). Remember, Cost of Sales represents a stock flow, not a cash flow. If **Cost of Sales** is greater than payments for stock, it will reduce profit more than it reduces cash. If **Cost of Sales** is less than payments for stock, it will mean a greater reduction in cash than in profit.

Expenses: amount incurred versus amount paid

Due to balance day adjustments, the amount paid for expenses is frequently different from the amount incurred. When expenses are paid in advance for the next Reporting Period, such as prepaid rent or prepaid insurance, the amount paid will be greater than the amount incurred, meaning that cash decreases more than profit. On the other hand, 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.

Revenue/expense	Cash inflow/outflow
Credit Sales	Receipts from debtors
Cost of Sales	Payments to creditors/Cash purchases
Other expense incurred	Other expense paid (may be titled Accrued and/or Prepaid)

In reality, there will usually be a combination of reasons why a firm's cash and profit performance differ.

A firm may earn a **Net Profit** but suffer a **decrease in cash** due to:

Reason	Examples
Cash outflows that decrease cash but are not expenses and so do not affect profit	Cash drawings Loan repayments Cash payments for non-current assets Overall more GST paid than received, including GST settlement
Revenues that increase profit but are not cash inflows and so do not affect cash	Stock gain
Revenue items that increase profit more than the corresponding cash inflow increases cash	Credit Sales greater than Receipts from Debtors
Expense items that decrease profit less than the corresponding cash outflow decreases cash	Cost of Sales less than payments for stock Other expense incurred less than paid

A firm may suffer a **Net Loss** but generate an **increase in cash** due to:

Reason	Examples
Cash inflows that increase cash but are not revenues and so do not affect profit	Capital contribution Loan received Overall more GST received than paid (including GST refund)
Expenses that decrease profit but are not cash outflows and so do not affect cash	Stock loss Bad debts Depreciation
Revenue items that increase profit less than the corresponding cash inflow increases cash	Credit Sales less than Receipts from Debtors
Expense items that decrease profit more than the corresponding cash outflow decreases cash	Cost of Sales greater than Payments for Stock Other expense incurred greater than paid

STUDY TIP

When looking for reasons to explain the difference between cash and profit performance, remember opposites: capital contribution versus drawings; loan received versus repaid; stock loss versus gain; and expenses prepaid versus accrued.

REVIEW QUESTIONS 12.5

- Identify** the three main reasons why the change in a firm's Cash Position may be different from its profit over the same period.
- Identify** two cash inflows that are **not** revenues. **Explain** the effect these items will have on both cash and Net Profit.
- Identify** three cash outflows that are **not** expenses. **Explain** the effect these items will have on both cash and Net Profit.
- Explain** how a stock gain may be the reason why a firm can earn a 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 as cash outflows in the Cash Flow Statement.

6 Explain the effect on both cash and profit if:

- Credit Sales is greater than Receipts from Debtors
- Credit Sales is less than Receipts from Debtors
- Cost of Sales is greater than Payments for Stock
- Cost of Sales is less than Payments for Stock
- expenses are accrued at the end of the Reporting Period
- expenses are prepaid for the next Reporting Period.



WHERE HAVE WE BEEN?

- The Statement of Receipts and Payments reports cash received and paid, and the change in the firm's bank balance over a Reporting Period.
- The Cash Flow Statement reports cash inflows and cash outflows relating to Operating activities, Investing activities and Financing activities, and the change in the firm's bank balance over a Reporting Period.
- Operating activities are cash flows related to day-to-day trading activities.
- Investing activities are cash flows related to the purchase and sale of non-current assets.
- Financing activities are cash flows related to changes in the financial structure of the firm.
- The Cash Flow Statement is used to aid decision-making and planning.
- There are four potential cash flows related to GST. These are the Operating inflows of GST received and GST refund and the Operating outflows of GST paid and GST settlement.
- Cash and profit are different measures of performance, and there are many possible reasons why a firm that is earning a profit can still suffer from a lack of cash:
 - Some cash inflows are not revenues.
 - Some cash outflows are not expenses.
 - Some revenues are not cash inflows.
 - Some expenses are not cash outflows.
 - Some items affect both cash and profit, but by differing amounts.



**EXERCISE 12.1**

page 252

EXERCISES**STATEMENT OF RECEIPTS AND PAYMENTS**

Crafty Cabinets has provided the following information relating to its cash transactions for July 2015:

Cash Receipts

Cash Sales	\$ 100 000
Receipts from Debtors	50 000
GST Received	10 000
Capital Contribution	15 000

Cash Payments

Payments to Creditors	\$ 70 000
Electricity	2 400
Interest	600
Office Expenses	5 000
Wages	30 000
Purchase of Equipment	5 600
Drawings	40 000
GST Paid	3 100
Loan Repayment	6 000
Prepaid Rent	18 000

Additional information:

- The bank balance of Crafty Cabinets as at 30 June 2015 was \$8 600 DR.
- Rent is paid in advance in July each year.

Required

- * **a Complete** the Bank account in the General Ledger of Crafty Cabinets as at 31 July 2015.
- * **b Prepare** a Statement of Receipts and Payments for Crafty Cabinets for July 2015.
- c State** one reason why the owner would be unhappy with the cash performance of the firm during July 2015.
- d Explain** one way to improve the information reported to the owner about the firm's cash performance.

EXERCISE 12.2

CASH FLOW STATEMENT

 page 254

Boof Hair Care Products has provided its Statement of Receipts and Payments for the year ending 30 June 2015:

BOOF HAIR CARE PRODUCTS

Statement of Receipts and Payments for the year ended 30 June 2015

Cash Receipts	\$	\$
Cash Sales	50 000	
Receipts from Debtors	25 000	
Capital Contribution	10 000	
GST Received	5 000	90 000
Less Cash Payments		
Payments to Creditors	24 000	
Wages	28 000	
Drawings	12 000	
GST Paid	930	
Electricity	1 500	
Prepaid Insurance	1 800	
Display Cabinets	6 000	74 230
Surplus (Deficit)		15 770
Add Bank Balance at start (1 July 2014)		(13 500)
Bank Balance at end (30 June 2015)		2 270

Required

- Prepare** a Cash Flow Statement for Boof Hair Care Products for the year ended 30 June 2015.
- Referring to your answer to part 'a', **explain** your treatment of Drawings.
- Suggest** one reason why the owner made the capital contribution of \$10 000.
- Explain** one benefit of preparing a Cash Flow Statement rather than a Statement of Receipts and Payments.

EXERCISE 12.3

CASH FLOW STATEMENT

 page 256

Flip Flops specialises in the sales of thongs, and has provided its Statement of Receipts and Payments for the quarter ending 30 September 2015:

FLIP FLOPS

Statement of Receipts and Payments for the quarter ended 30 September 2015

Cash Receipts	\$	\$
Cash Sales	10 000	
Receipts from Debtors	7 000	
Loan – Bodgey Bank	25 000	
GST Received	1 000	43 000
Less Cash Payments		
Payments to Creditors	14 000	
Cash Purchase of Stock	5 000	
Wages	6 000	
Drawings	2 000	
GST Paid	950	
Electricity	500	
Prepaid Rent	2 400	
Shelving	1 600	
Loan Repayment	1 000	
Interest Expense	550	34 000
Surplus (Deficit)		9 000
Add Bank Balance at start (1 July 2015)		1 500
Bank Balance at end (30 September 2015)		10 500

The owner, Karl Winefeld, is happy that the bank balance has increased so much over the quarter.

Required

- a Prepare** a Cash Flow Statement for Flip Flops for the quarter ended 30 September 2015.
- b Explain** one reason why the owner should be concerned about the firm's cash performance for the quarter ended 30 September 2015.

EXERCISE 12.4

OPERATING ACTIVITIES

 page 258

Katherine Quinn owns Mighty Winds, a shop specialising in electric fans, and has provided the following data from her financial records for 2015:

GST Paid	\$ 380	Cash Sales	\$ 60 000
Loan Repayment – Principal	12 000	Interest Paid	150
Electricity Paid	1 200	GST Received	6 000
Discount Expense	2 400	Wages Owing	1 600
Wages Paid	6 000	GST Charged on Credit Sales	10 000
GST Settlement	3 000	Cash Purchase of Office Furniture	2 600
Payments to Creditors	45 000	Accrued Interest Paid	1 700

Required

- Calculate** Net Cash Flows from Operations for Mighty Winds for 2015.
- Referring to your answer to part 'a', **explain** your treatment of Accrued Interest Paid.
- Explain** the importance of Net Cash Flows from Operations to the success of a trading business.

EXERCISE 12.5

OPERATING ACTIVITIES

 page 259

Got It Covered sells car seat covers and has provided the following data from its financial records for April 2015:

Credit Sales	\$ 28 000	GST Refund	\$ 300
Interest Expense Paid	4 800	Receipts from Debtors	15 000
Discount Expense	850	Drawings	1 800
Credit Purchase Of Stock	32 000	Cash Sales	16 000
GST on Credit Purchases	3 200	Rent Expense Incurred	12 000
GST Paid	1 900	Prepaid Rent Paid	15 000
Depreciation of Vehicle	600	GST Received on Cash Sales	1 600

Required

- Calculate** Net Cash Flows from Operations for Got It Covered for April 2015.
- Referring to your answer to part 'a', **explain** your treatment of Discount Expense.
- Explain** why the GST received and GST refund must be reported separately in the Cash Flow Statement.

EXERCISE 12.6

INVESTING ACTIVITIES

 page 260

Rag Doll Fashions has provided the following data from its financial records for the six months ending 31 December 2015:

Cash Sales	\$ 47 000	GST Received	\$ 4 700
Cash Purchase of Stock	15 000	GST Paid on Purchase of Stock	1 500
Cash Purchase of Fittings	5 600	GST Paid on Purchase of Fittings	560
Deposit Paid on Furniture	800	Drawings of Stock	2 800

Required

- In terms of the Cash Flow Statement, **explain** what is meant by the term 'Investing Activities'.
- Calculate** Net Cash Flows from Investing Activities for Rag Doll Fashions for the six months ended 31 December 2015.
- Referring to your answer to part 'b', **explain** your treatment of Cash Purchase of Stock.
- Explain** why the GST Paid on Purchase of Fittings is not reported as an Investing activity.

EXERCISE 12.7

INVESTING ACTIVITIES

 page 261

Neil Ng Enterprises has provided the following data from its financial records for November 2015:

Loan Repayment	\$ 12 000	Depreciation of Vehicle	\$ 2 100
Interest Expense	4 800	Cash Purchase of Shelving	10 000
Cash Purchase of Vehicle	32 000	Receipt of Loan	20 000
GST Paid	5 600	GST Settlement	1 200

Required

- Calculate** Net Cash Flows from Investing Activities for Neil Ng Enterprises for November 2015.
- State** one reason why GST paid is greater than 10% of Net Cash Flows from Investing Activities for November 2015.
- Suggest** three ways the purchase of the new vehicle may have been financed.
- Explain** how negative Net Cash Flows from Investing Activities may lead to a reduction in Net Profit.

EXERCISE 12.8

FINANCING ACTIVITIES

 page 262

Eden-Monaro Motors has provided the following data from its financial records for the year ending 30 June 2015:

Credit Sales	\$ 100 000	Interest Paid	\$ 1 800
Receipt of Loan – NAB	12 000	Net Profit	16 000
Accrued Wages Paid	800	Cash Drawings	25 000
Payments to Creditors	35 000	Drawings of Stock	700

Required

- In terms of the Cash Flow Statement, **explain** what is meant by the term 'Financing Activities'.
- Calculate** Net Cash Flows from Financing Activities for Eden-Monaro Motors for the year ended 30 June 2015.
- Referring to your answer to part 'b', **explain** your treatment of Interest Paid.
- Complete** the Capital account in the General Ledger of Eden-Monaro Motors as at 30 June 2015.

EXERCISE 12.9

FINANCING ACTIVITIES

 page 263

Flash Dance Wear has provided the following data from its financial reports for the 6 months ended 31 December 2015:

Repayment of Loan Principal	\$ 15 000	Cash Sales	\$ 50 000
Cash Drawings	8 700	Cash Purchase of Shop Fittings	6 500
Receipts from Debtors	20 000	Cash Contribution by Owner	30 000
Credit Purchase of Stock	32 000	Contribution of Vehicle by Owner	3 800

Required

- Calculate** Net Cash Flows from Financing Activities for Flash Dance Wear for the six months ended 31 December 2015.
- Explain** why a capital contribution is **not** reported in the Income Statement.
- Explain** how positive Net Cash Flows from Financing Activities may lead to a reduction in Net Profit.



EXERCISE 12.10

CASH VERSUS PROFIT

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Buzz Wax Products has provided the following journal totals for August 2015:

Sales Journal

Date	Debtor	Invoice number	Cost of Sales	Sales	GST	Debtors Control
Aug.	Totals		1 000	2 000	200	2 200

Cash Receipts Journal

Date	Details	Rec.no.	Bank	Discount Expense	Debtors Control	Cost of Sales	Sales	Sundries	GST
Aug.	Capital contribution							5 000	
	Totals		19 420	380	3 800	3 500	10 000	5 000	1 000

Cash Payments Journal

Date	Details	Chq. no.	Bank	Discount Revenue	Creditors Control	Stock Control	Wages	Sundries	GST
Aug.	Computer							1 000	
	Drawings							2 450	
	Interest							750	
	Totals		17 450	400	4 700	3 000	5 000	4 200	400

Additional information:

- As at 1 August 2015 the firm's bank account was \$2 500 overdrawn.
- During August 2015 the business incurred a Net Loss of \$1 650.

Required

- State** one reason why the total of the Debtors Control column in the Cash Receipts Journal does **not** equal receipts from debtors.
- * **Prepare** a Cash Flow Statement for Buzz Wax Products for August 2015.
- Referring to your answer to part 'b', **explain** why the owner should be concerned about the firm's Cash Position but less concerned about its cash performance in August 2015.
- Identify** two examples from the Cash Flow Statement that explain how Buzz Wax Products was able to record an increase in cash despite suffering a Net Loss. **Explain** your response.
- Explain** how the Cash Flow Statement can aid decision-making.

**EXERCISE 12.12** page 268**CASH VERSUS PROFIT**

Full Collection commenced business on 1 January 2015 when the owner deposited \$20 000 into the business bank account. On the same day a bank loan of \$50 000 was received from the Kyneton Bank. Interest on the loan is 6% per annum, and repayments of interest and principal will occur on the first of every month, beginning on 1 February 2015.

During January 2015 the following transactions occurred:

- A warehouse was rented and six months rent was paid in advance, totalling \$6 600 including GST.
- \$7 000 (plus GST) was paid for office equipment. The business uses the straight-line method for depreciation. It will use the office equipment for four years and then expects to dispose of it for \$2 200.
- All sales are on credit at a mark-up of 100%. During January 2015, the business invoiced customers for \$40 000 plus \$4 000 GST. As at 31 January 2015, \$15 000 of this was still owing.
- Stock is purchased on credit and paid for in the month following purchase.
- Wages of \$15 000 were paid.
- Administration expenses of \$4 000 plus \$400 GST were paid.
- Advertising of \$1 000 was incurred but not yet paid.
- Drawings were \$8 000, consisting of \$7 500 cash and \$500 worth of stock.

Required

- a Calculate** GST paid for Full Collection for January 2015.
- * **b Prepare** a Cash Flow Statement for Full Collection for January 2015.
- * **c Prepare** an Income Statement for Full Collection for January 2015.
- d Explain**, providing two examples, why Full Collection has made a Net Loss yet at the same time generated a cash surplus for January 2015.
- e** The owner believes that the Cash Flow Statement is a better indicator of business performance than the Income Statement. **Explain** why the owner is incorrect in making this statement.

EXERCISE 12.13

CASH FLOWS

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Giacomo Batusta owns The Glass House, a firm that sells glassware from a shop at Watergardens Shopping Centre, and has provided the following journal totals for October 2015:

Cash Receipts Journal

Date	Details	Rec. no.	Bank	Discount Expense	Debtors Control	Cost of Sales	Sales	Sundries	GST
Oct.	GST Refund							500	
	Totals		13 070	400	5 600	1 800	6 700	500	670

Cash Payments Journal

Date	Details	Chq. no.	Bank	Discount Revenue	Creditors Control	Drawings	Wages	Sundries	GST
Oct.	Interest							100	
	Drawings							2 110	
	Shelving							1 600	
	Totals		13 860	300	6 000	2 900	1 000	3 810	450

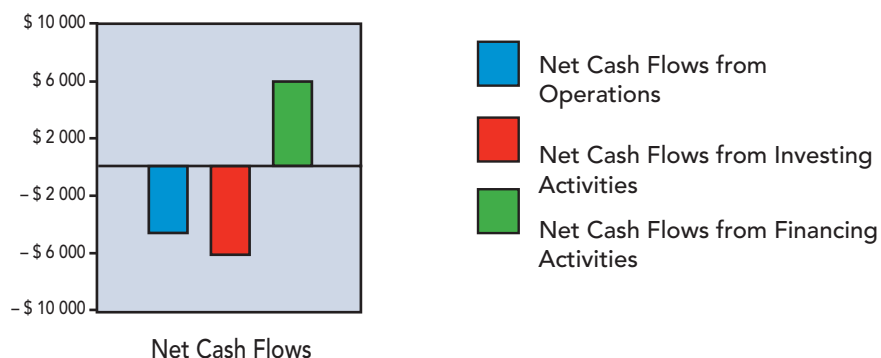
Additional information:

- As at 31 October 2015 the firm's bank account was \$560 overdrawn.

Required

- * **a Prepare** a Cash Flow Statement for The Glass House for October 2015.
- * **b Complete** the Bank account in the General Ledger of The Glass House as at 31 October 2015.
- c** Giacomo is concerned that the bank overdraft has increased despite the business generating positive Net Cash Flows from Operations. **Explain**, giving two examples from the Cash Flow Statement, how this occurred.
- d Explain** one benefit of preparing a Cash Flow Statement.

Giacomo provided the following graph representing the firm's cash activities for November 2015.



Required

- e State** whether the firm's bank balance will increase or decrease during November 2015. **Justify** your answer.
- f Explain** one reason why Giacomo should be concerned about the firm's Net Cash Flows from Operations for November 2015.
- g Discuss** whether Giacomo should be concerned about the firm's Net Cash Flows from Investing Activities for November 2015.

EXERCISE 12.14
 page 273
CASH VERSUS PROFIT

Ruby Ice owns Bling Rings, a reputable jewellery store, and has provided the following journal totals for the year ended 30 June 2015

Sales Journal

Date	Debtor	Inv. no.	Cost of Sales	Sales	GST	Total Debtors
	Totals		90 000	180 000	18 000	198 000

Cash Receipts Journal

Date	Debtor	Rec. no.	Bank	Discount Expense	Debtors Control	Sundries
	Loan – QZ FinCo.					15 000
	Totals		185 280	1 720	172 000	15 000

Cash Payments Journal

Date	Details	Chq. no.	Bank	Discount Revenue	Creditors Control	Drawings	Wages	Sundries	GST
	Admin. Expenses							1 000	
	Display Cabinets							8 000	
	Rent Expense							11 000	
	Prepaid Insurance							4 200	
	Interest Expense							3 000	
	GST Settlement							1 100	
	Totals		204 420	1 400	127 100	13 500	34 500	28 300	2 420

Additional information:

- All sales and purchases are made on credit, and all debtors receive a discount. As at 1 July 2014 the balance of the Debtors Control account was \$35 000 DR.
- Bad debts for the year ended 30 June 2015 amounted to \$5 000.
- As at 1 July 2014 the firm had a bank balance of \$30 000 DR.
- Insurance for June – August 2015 was paid in advance on 28 May 2015.

Required

- a **Identify** two effects on the format of the Cash Receipts Journal of the decision to make all sales on credit.
- b **Calculate** the percentage discount granted to debtors.
- * c **Complete** the Debtors Control account in the General Ledger of Bling Rings as at 30 June 2015.
- * d **Prepare** a Cash Flow Statement for Bling Rings for the year ended 30 June 2015.
- e Using two examples, **explain** how Bling Rings was able to earn a Net Profit despite suffering negative Net Cash Flows from Operations.

UNIT

4

CONTROL AND ANALYSIS OF BUSINESS PERFORMANCE

In Unit 4 of the VCE Accounting course, we will cover the following chapters:

CHAPTER 13	RETURNS OF STOCK	291
CHAPTER 14	STOCK VALUATION	309
CHAPTER 15	ACCOUNTING FOR NON-CURRENT ASSETS	333
CHAPTER 16	BALANCE DAY ADJUSTMENTS: REVENUES	367
CHAPTER 17	BUDGETS	387
CHAPTER 18	EVALUATING PROFITABILITY	427
CHAPTER 19	EVALUATING LIQUIDITY	455

Where are we headed?

After completing this chapter, you should be able to:

- **identify** a return of stock from a credit note
- **list** possible reasons for a return of stock
- **distinguish** between a purchase return and a sales return
- **record** a purchase return in the stock card, General Journal, General Ledger and Creditors Ledger
- **identify** the effect of a purchase return on the accounting equation
- **record** a sales return in the stock card, General Journal, General Ledger and Debtors Ledger
- **explain** the role of the stock card in determining the cost price of a sales return
- **identify** the effect of a sales return on the accounting equation
- **report** a sales return in the Income Statement.

CHAPTER 13

RETURNS OF STOCK

KEY TERMS

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

- purchase return
- sales return
- credit note
- Net Sales.

13.1 RETURNS OF STOCK

The main objective of a trading firm is to earn a profit by purchasing stock, then reselling it at a higher price. However, given the sheer number of transactions a trading firm will have with its customers and suppliers, it is only logical to expect that not every item of stock sold or purchased will prove to be suitable. This means that in the normal course of business Operations, a certain number of returns of stock can be expected.

There are basically two types of returns:

- purchase returns
- Sales Returns.

A **purchase return** occurs when stock is returned *by our firm* to a supplier. A **sales return** occurs when stock is returned *to our firm* by a customer. This chapter concentrates on how to record and report purchase returns to trade creditors, and Sales Returns by trade debtors.

Note: Returns for a cash refund are beyond the scope of this course.

Reasons for returns of stock

There are probably as many reasons for returning stock as there are for purchasing it. Some of the more common reasons to return stock are because:

- the stock is faulty/damaged
- the stock is the wrong size/colour/shape/model
- too many items of stock were purchased
- the customers have simply changed their mind.

purchase return

the return of stock by our firm to a trade creditor

sales return

the return of stock to our firm by a trade debtor

There are probably as many reasons for returning stock as there are for purchasing it. One of the most common reasons is that the stock is faulty or damaged.



Damaged or faulty stock must be accepted for return, provided the customer has the source document (such as the sales invoice) as proof of purchase, and the business is satisfied the fault lies with the product rather than with how it was used. Business owners should obtain advice regarding their legal obligations in this area.

It is up to individual businesses to decide whether they will accept return from customers who have changed their minds. For some businesses – and some products – it may be inappropriate to accept returns (cut material and, perhaps, underwear may fall into this category). However, businesses that do accept returns may actually generate greater sales, with customers more willing to buy if they know they can return the product if it turns out to be unsuitable.


REVIEW QUESTIONS 13.1

- 1 **Explain** the difference between a purchase return and a sales return.
- 2 **State** four reasons why stock may be returned to a supplier.
- 3 **Explain** one benefit that may be derived by accepting returns from customers who change their mind.

13.2 CREDIT NOTES

As with all transactions, the process of recording and reporting returns of stock must begin with a source document. Information that cannot be verified by a source document will undermine the *Reliability* of the financial reports. As this course deals only with credit returns to trade creditors and by trade debtors, the only document to provide the evidence of a return will be a **credit note**, such as the one shown in Figure 13.1.

Figure 13.1 Credit note

Marcon Tool Co. ABN 98 756 458 751 33 Gaffney St Coburg VIC 3058				23 Aug. 2015 TAX INVOICE Credit note: 85	
Returned by: Hardware Plus Johnson St, Collingwood VIC 3066					
Qty	Item	Unit price	Total cost		
4	Arcwell electric drills	120	480		
	GST (10%)		48		
			528		
Reason	Wrong stock items ordered				

credit note
 a source document that verifies the return of stock either to a trade creditor or by a trade debtor

STUDY TIP

Transactions in this course will identify whether GST applies, but not necessarily the GST amount.

Every credit note must identify the type and quantity of stock returned; the name of the customer who is returning the stock; and the reason for the return. Figure 13.1 shows a return of four Arcwell electric drills to Marcon Tool Co. by Hardware Plus, because the wrong stock items were ordered.

A credit note such as this is not store cash, as it might be if stock was returned to a department store; it cannot be used to pay for more stock. Rather, it provides the evidence that stock has been returned, and that the debt owed by the debtor or to the creditor has been reduced.

Purchase or sales return?

Given that a credit note will provide the evidence of both a purchase return *and* a sales return, how are the two to be distinguished? Note how similar a credit note is in appearance to an invoice and, just like an invoice, the name of the seller is identified at the top of the document. In the case of a return, the seller is also the business that is receiving the stock as a return. The business returning the stock is identified in the middle of the credit note. This means that if our business name is in the *middle* of the credit note, we are returning the stock, and the transaction is a *purchase return*. If our business name is at the *top* of the credit note, we are receiving the stock in return, so the transaction is a *sales return*.

REVIEW QUESTIONS 13.2

- 1 Referring to one qualitative characteristic, **explain** the importance of source documents in the accounting process.
- 2 **State** the five pieces of data that must be noted on a credit note.
- 3 **Explain** how the credit note can be used to distinguish a purchase return from a sales return.

13.3 RECORDING PURCHASE RETURNS TO TRADE CREDITORS

A purchase return occurs when our firm returns stock to a trade creditor. This will reduce the quantity of stock on hand and the amount owed to the trade creditor. It will also affect the balance of the GST Clearing account.

EXAMPLE

On 28 March 2015, Pete's Tyre Mart returned 20 tyres to Billstone Tyres because they were the wrong type. The tyres were purchased for \$80 each, plus \$8 GST (Credit note 11).

The stock card

As with all transactions affecting stock, a purchase return must be recorded in the stock card of the appropriate stock item. In the accounting records for Pete's Tyre Mart this purchase return would be recorded in the stock card, as shown in Figure 13.2.

Figure 13.2 Stock card: purchase return

STOCK CARD										
Stock item: Tyres		Location: Bay 17								
Stock code: BST		Supplier: Billstone Tyres								
Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
March 25	Balance							60	75	4 500
								90	80	7 200
28	Cr. note 11				20	80	1 600	60	75	4 500
								70	80	5 600

As the stock leaves the firm to return to the supplier, it is recorded in the Out column of the stock card, which decreases the quantity of stock on hand. Only the cost price of the stock (\$80 per tyre) is recorded in the stock card; the GST component is excluded.

Purchase returns and FIFO

It is necessary to apply First In, First Out (FIFO) to sales because the cash receipt or sales invoice will not identify the cost price of the stock that has been sold; the cost price can only be determined by reference to the stock card. The same is *not* true for purchase returns; the credit note must identify the cost price of the stock that is being returned. This means that returns may come from the stock that was purchased first but, equally, may come from newer batches of stock. Effectively, FIFO is not applied to purchase returns.



The General Journal, General Ledger and Creditors Ledger

While there is a special journal dedicated to recording credit *purchases* of stock (the Purchases Journal) purchase *returns* are recorded in the General Journal because they don't involve cash and, hopefully, are infrequent. The purchase return that is recorded in the stock card in Figure 13.2 would be recorded in the General Journal as shown in Figure 13.3.

Figure 13.3 General Journal: purchase return

General Journal					
Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
March 28	Creditors Control	1 760			
	Creditor – Billstone Tyres			1 760	
	Stock Control		1 600		
	GST Clearing		160		
	20 tyres returned to supplier – wrong type (Cr. note 11)				

It is important that the narration identifies the source document (*Credit note 11*) so the stock item can be identified and recorded in the stock card.

In terms of the General Ledger, a purchase return is simply the reversal of a purchase. To begin with, returning the stock to the supplier reduces the amount that is owed to that supplier. This is recorded as a debit to *Creditors Control*. Remember that the original amount owing to the creditor consisted of two amounts: the cost price of the stock (\$1 600), plus the GST (\$160). Returning the stock decreases the creditor by the sum of these two figures (\$1 760). This debit entry must also be recorded in the subsidiary ledger to decrease the balance owed to *Creditor – Billstone Tyres*.

Because the stock level decreases, *Stock Control* decreases via a credit to this account, but this is only for the amount that relates to stock (\$1 600). Just like the stock card, the amount in the Stock Control account excludes the GST component.

The GST amount (\$160) is recorded as a separate credit to *GST Clearing*, increasing the liability to the ATO, or possibly reducing the asset. Whereas GST on the credit purchase of stock reduced the GST liability – because the supplier will forward the GST to the ATO – this entry is reinstating that GST liability because the supplier will no longer collect it.

The transaction in Figure 13.3 would be posted to the General Ledger accounts as shown in Figure 13.4:

Figure 13.4 General Ledger: purchase return

General Ledger					
Creditor Control (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
March 31	Bank/Discount Revenue	32 900	March 1	Balance	24 000
	Stock Control/GST Clearing	1 760	31	Stock Control/GST Clearing	38 500

STUDY TIP

A purchase return is the exact reverse of a credit purchase.

STUDY TIP

GST on a purchase return undoes the decrease in the GST liability caused by a credit purchase.

STUDY TIP

Resist the temptation to use the cross-reference 'Purchase Returns' in the Creditor Control account as there is no such ledger account.

Figure 13.4 (cont.) General Ledger: purchase return

Stock Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
March 31	Balance	14 000	March 31	Cost of Sales	41 000
31	Bank	6 500		Creditors Control	1 600
	Creditors Control	35 000			

GST Clearing (A/L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
March 31	Creditors Control	3 500	March 1	Balance	600
	Bank	2 400	31	Debtors Control	4 000
				Bank	2 900
				Creditors Control	160

Note how the cross-reference for the debit entry in the Creditors Control account is *not* 'Purchase Returns': although this describes the transaction, there is no ledger account called 'Purchase Returns' so this cannot be the cross-reference. Rather, the debit entry of \$1 760 is a *combination*: part stock and part GST. We no longer owe the creditor for the stock, and we no longer owe the creditor for the GST on that stock. The cross-reference is **Stock Control/GST Clearing**.

Note also that the cross-reference 'Creditors Control' now appears on both sides of the GST Clearing account: the GST on credit purchases (\$3 500) is on the debit side as a reduction in the GST liability, and the GST on purchase returns (\$160) is on the credit side.

Figure 13.5 shows how the purchase return would be posted to the Creditors Ledger:

Figure 13.5 Creditors Ledger: purchase return

CREDITORS Ledger					
Creditor – Billstone Tyres (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
March 9	Bank/ Discount Revenue	5 000	March 1	Balance	5 000
22	Bank	2 000	12	Stock Control/ GST Clearing	3 300
28	Stock Control/ GST Clearing	1 760	27	Stock Control/ GST Clearing	2 750

As has always been the case, the cross-references used in the subsidiary ledger are identical to those used in the Control accounts, but instead of journal totals, this account uses individual transaction dates and amounts.

Effect on the accounting equation

Because a purchase return is the opposite of a credit purchase, its effect on the accounting equation is also the opposite. Whereas a credit purchase will increase stock, creditors and GST Clearing, a purchase return has the following effect on the accounting equation:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Stock Control)	1 600
Liabilities	Decrease (decrease Creditors Control \$1 760, increase GST Clearing \$160)	1 600
Owner's Equity	No effect	

If the GST Clearing account has a debit balance, and is an asset, then a purchase return will decrease that asset. This will change the overall effect on the accounting equation; asset and liabilities will still decrease, but by the total on the credit note, including the GST.

Reporting purchase returns

Because a purchase return does not affect any revenue or expense items, and does not involve a cash flow, it will not be reported in either the Cash Flow Statement or the Income Statement. In fact, it will not be reported anywhere. A purchase return will change the balances of Stock Control, Creditors Control and GST Clearing in the Balance Sheet, but will not be reported as a separate item.

REVIEW QUESTIONS 13.3

- 1 Explain** how the cost price of stock is determined when a purchase return is recorded in the stock card.
- 2 Show** the General Journal entries necessary to record a purchase return.
- 3 State** one reason why the term 'Purchase Return' is not used as a cross-reference in the Creditors Control account.
- 4 State** the effect of a purchase return on the accounting equation.
- 5 Explain** how a purchase return is reported in the financial statements.

13.4 RECORDING SALES RETURNS FROM TRADE DEBTORS

Whereas a purchase return occurs when stock is returned *by our firm to a trade creditor*, a sales return occurs when stock is returned *to our firm by a trade debtor*. A sales return will increase stock on hand, but reduce debtors and also profit. The balance of the GST Clearing account will also be affected.

On 23 May 2015, Books By Gosh received a sales return of **three** books from M.S. Howard worth **\$30** (plus **\$3** GST) each (Credit note 21). The books had been sold on 4 May 2015.

EXAMPLE

The stock card

As stock is coming back into our business, a sales return must be recorded in the In column of the relevant stock card. In the accounting records for Books By Gosh, this sales return would be recorded in the stock card as shown in Figure 13.6.

Figure 13.6 Stock card: sales return

STOCK CARD										
Stock item: Books					Location: Shelf next to front counter					
Stock code: 171					Supplier: Cambridge Publishing					
Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
May 1	Balance							9	10	80
4	Inv. 30				7	10	60	2	10	20
10	Ch. 901	15	12	180				2	10	20
								15	12	180
13	Inv. 31				2	10	20			
					5	12	60	10	12	120
15	Ch. 904	20	14	280				10	12	120
								20	14	280
18	Inv. 32				10	12	120			
					2	14	28	18	14	252
23	Cr. note 21	1	12	12				1	12	12
		2	14	28				20	14	280

Although the credit note identified the price of each book as \$30, this is the **selling price**. Transactions must be recorded in the stock card at **cost price**, but which cost price should be used? In Figure 13.6, the original sale on 4 May 2015 valued the stock at a cost price of \$10 per book. Why, then, isn't this cost price used in the sales return on 23 May 2015?

The key principle behind recording a sales return is that the stock card should be returned to the position it would have been in if the sale had never taken place. If the sale on 4 May 2015 had *not* taken place, then we would assume that the \$10 stock would still be on hand. However, the application of FIFO would assume that this stock would be part of the *next* sale on 13 May 2015.

In practice, this means that Sales Returns should value stock at the cost price used in the most recent transaction in the Out column. If the most recent sale involved two different cost prices, then a reversal of FIFO assumes that the *last* stock out is the first stock to be returned.

A sales return should value stock at the cost price used in the most recent transaction in the Out column.

Using the cost price in the most recent transaction in the Out column means that the sales return on 23 May 2015 should use the cost prices from the sale on 18 May 2015, valuing *two* of the items at \$14 each (the last two books sold), with the other valued at \$12. The total cost price of the return (\$40) will be used in the General Journal entry.

The General Journal, General Ledger and Debtors Ledger

Credit Sales are recorded in their own journal (the Sales Journal) but, in common with purchase returns, Sales Returns are recorded in the General Journal. The sales return recorded in the stock card in Figure 13.6 would be recorded in the General Journal as shown in Figure 13.7:

Figure 13.7 General Journal: sales return

General Journal					
Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
May 23	Sales Returns	90			
	GST Clearing	9			
	Debtors Control		99		
	Debtor – M.S. Howard				99
	Stock Control	40			
	Cost of Sales		40		
	3 books returned by customer – too many supplied (Cr. note 21)				

The original credit sale was recorded as a credit to the Sales revenue account, so a sales return requires the opposite. But rather than simply debit the Sales revenue account, a separate ledger account is used to record **Sales Returns**. This account is a *negative revenue account*, and is debited \$90 to record the reduction in revenue. **GST Clearing** is also debited, by \$9, to reduce the GST liability owed to the ATO. This is GST we will never receive, and therefore now do not owe to the ATO.

Reversing the sale also means that the debt owed by the debtor is reduced. This is achieved by crediting the **Debtors Control** account in the General Ledger, and simultaneously crediting the individual account (**Debtor – M.S. Howard**) in the Debtors Ledger. The debtor owed us both the selling price (\$90) as well as the GST on the sale (\$9), so by returning the stock, the full amount (\$99) is deducted from the debtor's balance.

Just as a credit sale involves two double entries (one at **cost price** and one at **selling price**) so does a sales return. The cost price of \$40, as determined via the stock card, is debited to the **Stock Control** account to reflect that the stock is coming back *in* to the business. As a consequence, the expense **Cost of Sales** is reduced via a credit entry, because the sale has been returned. Again, the entries affecting the Stock Control account do not include GST.

The transaction in Figure 13.7 would be posted to the ledger accounts as shown in Figure 13.8:

Figure 13.8 General Ledger: sales return

General Ledger					
Debtors Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
May 1	Balance	16 500	May 31	Bank/Discount Expense	32 900
31	Sales/GST Clearing	37 400		Sales Returns/GST Clearing	99

Figure 13.8 (cont.) General Ledger: sales return

GST Clearing (A/L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
May 31	Creditors Control	2 700	May 1	Balance	800
	Bank	2 100	31	Debtors Control	3 400
	Debtors Control	9		Bank	1 700

Sales Returns (- R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
May 31	Debtors Control	90			

Stock Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
May 1	Balance	14 000	March 31	Cost of Sales	24 000
31	Creditors Control	11 000			
	Cost of Sales	40			

Cost of Sales (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
May 31	Stock Control	24 000	May 31	Stock Control	40

The cross-reference for the credit entry in both debtor accounts (in the General Ledger and Debtors Ledger) is *Sales Returns/GST Clearing*, reflecting the fact that both the selling price of the stock (\$90) and the GST component (\$9) have been deducted from the debtor's balance.

Note also that the cross-reference 'Debtors Control' appears on both sides of the GST Clearing account. GST charged on Credit Sales increases the GST liability via an entry on the credit side, but GST on Sales Returns decreases that liability via an entry on the debit side.

Figure 13.9 shows how a sales return would be posted to the Debtors Ledger:

Figure 13.9 Debtors Ledger: sales return

DEBTORS LEDGER					
Debtor - M.S. Howard (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
May 1	Balance	200	May 12	Bank/Discount expense	200
4	Sales/GST Clearing	231	23	Sales Returns/ GST Clearing	99

Effect on the accounting equation

A credit sale of stock affects assets by increasing debtors and decreasing stock; it increases the GST liability; and it increases owner's equity via the profit on the sale. A sales return reverses this effect:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (decrease Debtors Control \$99, increase Stock Control \$40)	59
Liabilities	Decrease (GST Clearing)	9
Owner's Equity	Decrease (Sales Returns \$90 less decrease Cost of Sales \$40 = less profit)	50

REVIEW QUESTIONS 13.4

- 1 Explain** how the cost price of stock is determined when a sales return is recorded in the stock card.
- 2 Show** the General Journal entries necessary to record a sales return.
- 3 Explain** why a sales return leads to a reduction in the GST liability.
- 4 State** the effect of a sales return on the accounting equation.

13.5 REPORTING SALES RETURNS

The value and number of Sales Returns can be an important indicator of the quality and suitability of the stock that is being traded. If Sales Returns are high, it may indicate customer dissatisfaction with the goods that are being sold. This may be because the goods are of inferior quality, or simply because customers have been provided with goods that did not suit their purpose.

In order to investigate the cause of high Sales Returns, the owner must first be aware that Sales Returns are indeed a problem. This is why Sales Returns are recorded in their own separate ledger account, and reported separately in the Income Statement.

Of course, the owner should not rely solely on the Income Statement for information about the suitability of stock. Stock movements should be assessed regularly by consulting with staff and customers, and by examining the stock cards.

Figure 13.10 shows how Sales Returns are reported in the Income Statement:

Figure 13.10 Income Statement: Sales Returns

BOOKS BY GOSH		
Income Statement (extract) for May 2015		
Revenue	\$	\$
Sales	51 000	
Less Sales Returns	90	50 910
Less Cost of Goods Sold		
Cost of Sales	23 960	
Freight In	1 200	25 160
Gross Profit		25 750

As a *negative revenue*, Sales Returns is reported as a deduction from sales, leaving **Net Sales**. In Figure 13.10, this Net Sales figure is **\$50 910**.

The Cost of Sales is not reported any differently, as the effect of any Sales Returns will have already been recorded in the Cost of Sales account, and accounted for in the figure closed to the Profit and Loss Summary account. In Figure 13.10, the cost price of the sales return has already been deducted to leave an overall figure of \$23 960.

Net Sales
sales revenue after the
deduction of Sales
Returns; that is, Sales less
Sales Returns

REVIEW QUESTIONS 13.5

- 1 **Explain** why Sales Returns are reported separately in the Income Statement.
- 2 **Suggest** two reasons for high Sales Returns.
- 3 **Show** how Net Sales is reported in the Income Statement.
- 4 **Explain** why the cost price of a sales return is **not** reported separately in the Income Statement.



WHERE HAVE WE BEEN?

- Returns of stock are verified by a credit note, and recorded in the General Journal.
- A purchase return is the return of stock (by our firm) to a trade creditor.
- Purchase returns are recorded in the Out column of the stock card, and decrease stock on hand.
- A sales return is the return of stock (to our firm) by a trade debtor.
- Sales Returns are recorded in the In column of the stock card, and increase stock on hand.
- Sales Returns should value stock at the cost price used in the most recent transaction in the Out column of the stock card.
- Sales Returns are reported separately in the Income Statement so that the owner is alerted to potential problems and customer dissatisfaction with stock.

EXERCISES

EXERCISE 13.1

RECORDING A PURCHASE RETURN

 page 278

On 14 September 2015, Joseph Boat Supplies had 12 pairs of oars on hand, each pair with a cost price of \$60 (plus \$6 GST). On 15 September 2015, four pairs of oars were returned to Oars R Us because they were the wrong size (Credit note 71).

Required

- a **Record** Credit note 71 in the stock card for Oars.
- b **Show** the General Journal entries necessary to record Credit note 71.
- c **State** the effect of Credit note 71 on the accounting equation of Joseph Boat Supplies.

EXERCISE 13.2

PURCHASE RETURNS AND THE CREDITORS LEDGER

 page 279

Benny Electricals purchases a particular type of fridge from Freezing Fridges. Its transactions for April 2015 were as follows:

- | | | |
|-------|----|------------------------------------------------------------------------------|
| April | 6 | Purchased 5 fridges from Freezing Fridges at \$400 (plus GST) each (Inv. 45) |
| | 11 | Paid \$7 600 to Freezing Fridges, and received \$400 discount |
| | 18 | Sold 12 fridges for \$1 100 (including GST) each (Inv. 74) |
| | 26 | Purchased 8 fridges from Freezing Fridges at \$420 (plus GST) each (Inv. 51) |
| | 29 | One of the fridges purchased on 26 April 2015 was returned (Cr. note 38) |

Additional information:

Balances at 1 April 2015:	Creditor – Freezing Fridges	\$8 000
	Stock of fridges	10 @ \$380 each

Required

- a State** the source document that would verify the transaction on 11 April 2015.
- b Record** the transactions for April 2015 in the stock card for Fridges.
- c Explain** why Credit note 38 must be recorded in the General Journal.
- d Show** the General Journal entries necessary to record Credit note 38.
- * **e Complete** the account for Freezing Fridges in the Creditors Ledger of Benny Electricals.
- f** Assuming there were no other transactions involving GST, **calculate** the GST liability of Benny Electricals as at 30 April 2015.

EXERCISE 13.3
 page 281
RECORDING A SALES RETURN

On 23 July 2015, Rich Earth furniture had 15 tables on hand, each with a cost price of \$800. On 26 July 2015, T. Nicole returned a table that she had purchased on credit on 21 July 2015 for \$1 400 (plus \$1 400 GST) because it didn't match her other furniture. Credit note 64 was issued to Nicole for the return.

Required

- a Record** Credit note 64 in the stock card for tables.
- b Show** the General Journal entries necessary to record Credit note 64.
- c State** the effect of Credit note 64 on the accounting equation of Rich Earth.
- d** Assuming the Sales account had a credit balance of \$12 000, **show** how the sales return would be reported in the Income Statement of Rich Earth for July 2015.
- e Explain** one benefit of offering Sales Returns to customers who change their minds.

EXERCISE 13.4
 page 283
SALES RETURNS AND THE DEBTORS LEDGER

Nick of Time is a clock shop. Its transactions for August 2015 were as follows:

Aug. 4	Sold 4 clocks to Mega World for \$150 (plus GST) each (Inv. 12)
7	Purchased 10 clocks from TimeStar Clocks for \$90 (plus GST) each (Inv. 202)
9	Received \$1 000 from Mega World
13	Sold 5 clocks to Mega World for \$165 (including GST) each (Inv. 13)
20	Purchased 12 clocks from TimeStar Clocks for \$110 (including GST) each (Inv. 211)
25	Mega World returned 2 clocks (Cr. note 4)

Additional information:

Balances at 1 August 2015:	Debtor – Mega World	\$1 200
	Stock of clocks	6 @ \$80 each

Required

- a State** the special journal that would be used to record the transaction on 7 August 2015.
- b Record** the transactions in the stock card for clocks.
- c Show** the General Journal entries necessary to record the return of stock.
- * **d Complete** the account for Mega World in the Debtors Ledger of Nick of Time.
- * **e** Assuming there were no other sales, **prepare** an Income Statement for Nick of Time for August 2015 showing Gross Profit. (A full Income Statement is **not** required.)

EXERCISE 13.5

PURCHASE RETURNS AND THE GENERAL LEDGER

 page 285

Thommo's Toys presented the following summary of its transactions for October 2015:

Stock Control – balance 1 October 2015	\$42 000	
Creditors Control – balance 1 October 2015	34 000	
GST Clearing – balance 1 October 2015	800	CR
Credit purchases for October 2015	50 000	(plus GST \$5 000)
Cash paid to creditors plus discount revenue	59 400	
Credit Sales	66 000	(incl. GST); cost price \$30 000
Cash sales	30 000	(plus GST); cost price \$15 000
GST paid	2 500	

Additional information:

- On 28 October 2015, stock worth \$1 000 (plus GST) was returned to a supplier, Wilson Industries.

Required

- State** the source document that would verify the return of stock on 28 October 2015.
 - State** two reasons why stock may be returned to a supplier.
 - Show** the General Journal entries necessary to record the return of stock on 28 October 2015. (Narration **not** required.)
- * **d Complete** the Stock Control, Creditors Control and GST Clearing accounts in the General Ledger of Thommo's Toys as at 31 October 2015.
- State** two other pieces of information that would be necessary to record the return of stock in the stock card.

EXERCISE 13.6

SALES RETURNS AND THE GENERAL LEDGER

 page 287

Drew Curtains presented the following summary of its transactions for November 2015:

Stock Control – balance 1 November 2015	\$13 000	
Debtors Control – balance 1 November 2015	25 000	
GST Clearing – balance 1 November 2015	950	CR
Credit Sales	40 000	(plus GST); cost price: \$25 000
GST paid	1 500	(plus \$3 600 GST)
Credit purchases for November 2015	39 600	(including GST)
Cash Receipts Journal column totals:		
Debtors Control	38 000	
Cash sales	12 000	
Cost of Sales	8 000	
GST	1 200	

Additional information:

- On 13 November 2015, a debtor, K. Dowling, returned stock because it was faulty. The stock had a selling price of \$800 plus GST, and a cost price of \$600 (Cr. note 37).
- Drew has stated that discounts were granted to debtors during November.

Required

- a Show** the General Journal entries necessary to record the return of stock on 13 November 2015.
- b State** the effect of the return of stock on 13 November 2015 on the accounting equation of Drew Curtains.
- * **c Complete** the Debtors Control, Sales Returns, GST Clearing, Stock Control and Cost of Sales accounts in the General Ledger of Drew Curtains as at 30 November 2015.
- * **d** Assuming there are no other transactions, **prepare** an Income Statement for Drew Curtains for November 2015, showing Gross Profit. (A full Income Statement is **not** required.)

EXERCISE 13.7 RETURNS AND THE STOCK CARD

 page 289


Elizabeth Jewellery sells necklaces, rings and other jewellery. Its stock card for necklaces showed the following transactions for January 2015:

STOCK CARD

Stock item: Necklaces, 60cm		Location: Front cabinet								
Stock code: AU60cm		Supplier: Gems Warehouse								
		IN			OUT			BALANCE		
Date	Details	Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
3	Memo 32				1	120	120	8	120	960
9	Inv. 30				3	120	360	5	120	600
13	Inv. A91	10	130	1 300				5	120	600
								10	130	1 300
17	Rec. 009				5	120	600			
					1	130	130	9	130	1 170
22	Inv. A98	10	140	1 400				9	130	1 170
								10	140	1 400

Additional information:

The following transactions have not yet been recorded:

		Elizabeth Jewellery		25/1/2015
		Little Bourke St Melbourne VIC 3000 ABN 07 012 000 070		TAX INVOICE Credit note: 29
<i>Returned by: M. Brooke Beach St, Frankston VIC 3199</i>				
Qty	Item	Unit price	Total cost	
2	Necklaces	200	400	
	GST (10%)		40	
			440	
Reason	Damaged			

- On 26 January 2015, the damaged necklaces were returned to the supplier, Gems Warehouse, for a credit of \$250 plus GST (Cr. note 101).
- On 31 January 2015, a stocktake revealed that there were 16 necklaces on hand (Memo 33).
- All necklaces have a selling price of \$220 including GST.

Required

- Suggest** two possible reasons for the transaction on 3 January 2015.
- Record** the additional information in the stock card for necklaces.
- Explain** how the application of FIFO affects the recording of a sales return in the stock card.
- Show** the General Journal entries necessary to record the additional information.
- Calculate** Cost of Sales for necklaces for January 2015.
- Calculate** Adjusted Gross Profit on necklaces for January 2015.

EXERCISE 13.8

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POSTING JOURNALS TO THE LEDGER

Garry's Garden Supplies buys and sells plants. Its Balance Sheet as at 1 June 2015 included the following items:

Current assets

Stock Control	\$ 5 000
Debtors Control	3 080
• Macarthur Parks	1 100
• James Greville	1 980

Current liabilities

Bank	2 000	CR
GST Clearing	300	
Creditors Control	1 430	
• City of Hume	550	
• Chas and Mary's Plants	880	

Its owner, Garry, has provided the following special journals relating to its trading activities for June 2015.



Cash Receipts Journal

Date	Details	Receipt number	Bank	Discount Expense	Debtors Control	Cost of Sales	Sales	Sundries	GST
June 1	Cash Sales	20	1 056			640	960		96
6	James Greville	21	1 881	99	1 980				
10	Cash Sales	22	858			520	780		78
14	Growth Solutions	23	1 254	66	1 320				
19	Capital	24	5 000					5 000	
24	Macarthur Park	25	400		400				
25	Cash Sales	26	726			440	660		66
	Totals		11 175	165	3 700	1 600	2 400	5 000	240

Cash Payments Journal

Date	Details	Cheque number	Bank	Discount Revenue	Creditors Control	Stock Control	Wages	Sundries	GST
June 1	GST Clearing	112	300					300	
3	Stock Control	113	715			650			65
4	Chas and Mary's Plants	114	836	44	880				
8	Advertising	115	3 960					3 600	360
10	City of Hume	116	550		550				
11	Stock Control	117	1 540			1 400			140
13	Wages	118	500				500		
18	City of Hume	119	2 508	132	2 640				
22	Drawings	120	1 000					1 000	
27	Wages	121	500				500		
	Totals		12 409	176	4 070	2 050	1 000	4 900	565

Purchases Journal

Date	Creditor	Invoice number	Stock Control	GST	Creditors Control
June 12	City of Hume	90	2 400	240	2 640
17	Chas and Mary's Plants	91	3 040	304	3 344
20	City of Hume	92	1 540	154	1 694
	Totals		6 980	698	7 678

Sales Journal

Date	Debtor	Invoice number	Cost of Sales	Sales	GST	Debtors Control
June 6	Macarthur Parks	65	900	1 350	135	1 485
11	Growth Solutions	66	800	1 200	120	1 320
18	James Greville	67	1 400	2 100	210	2 310
25	Growth Solutions	68	1 200	1 800	180	1 980
	Totals		4 300	6 450	645	7 095

Additional information:

- On 28 June 2015, Garry returned stock that had originally cost \$770 (including GST) to City of Hume.
- On 29 June 2015, Macarthur Parks returned stock to Garry's Garden Supplies, which had originally been sold for \$550 plus GST. The stock had a cost price of \$390.
- On 30 June 2015, a letter was received informing Garry that Macarthur Parks was bankrupt, and its balance of \$1 580 should be written off.

Required

- a Show** the General Journal entries necessary to record the additional information. (Narrations are **not** required.)
- * **b Complete** the following General Ledger accounts as at 30 June 2015:
- Debtors Control
 - Creditors Control
 - Stock Control
 - Cost of Sales
 - GST Clearing.
- c Complete** the account of Macarthur Parks in the Debtors Ledger as at 30 June 2015.
- * **d Complete** the account of City of Hume in the Creditors Ledger as at 30 June 2015.
- * **e Prepare** an Income Statement for Garry's Garden Supplies for June 2015.
- f Explain** how the GST Clearing account would be reported in the Balance Sheet of Garry's Garden Supplies as at 30 June 2015.

Where are we headed?

After completing this chapter, you should be able to:

- **define** and **calculate** the cost of stock
- **explain** the importance of accounting principles and qualitative characteristics in the valuation of stock
- **define** and **identify** product and period costs
- **record** product and period costs in the journals, stock cards and General Ledger
- **report** product and period costs in the Income Statement and Balance Sheet
- **explain** the effect of period costing on the accounting equation and accounting reports
- **define** and **apply** the lower of cost and Net Realisable Value (NRV) rule
- **state** possible reasons for a Stock Write-down
- **record** a Stock Write-down in the General Journal, stock cards and General Ledger
- **report** a Stock Write-down in the Income Statement
- **state** the effect of a Stock Write-down on the accounting equation.

CHAPTER 14

STOCK VALUATION

KEY TERMS

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

- cost of stock
- unit cost
- product cost
- period cost
- Net Realisable Value (NRV)
- Stock Write-down.

14.1 THE COST OF STOCK

How much is our stock worth? It seems like a fairly obvious question for a business owner to ask, and the owner would expect the accountant to be able to answer it with absolute certainty. After all, stock is often the most significant asset a trading business will hold and, just as importantly, it is its main source of revenue. So how should we value our stock?

If you understand the accounting principles and qualitative characteristics, then the answer seems easy enough. Applying the Historical Cost principle means that stock should be valued at its original purchase price, as this is verifiable by reference to a source document. In turn, this ensures *Reliability* in the reports, because this valuation will be free from error and bias.

In essence then, stock is valued by calculating its cost. In many cases, this will simply be the price charged to us by our supplier. But in other cases, there may be other costs associated with the purchase, and these must be accounted for in determining the cost price of the stock.

EXAMPLE

Sleepworld sell beds and bedroom furniture. On 18 October 2015, it purchased a new item of stock, a king-size waterbed, and incurred the following costs:

Waterbed – supplier's price	\$800
Delivery to Sleepworld from supplier	100
GST on purchase and delivery	90
Total invoice price	<u>\$990</u>

The bed will have a selling price of \$1 200 plus \$120 GST.

What is the 'cost' of the bed? Let's start by eliminating the *selling price* as a possibility, because this figure is not the purchase price. A valuation based on selling price would directly breach the Historical Cost principle. However, there is an additional reason not to value the stock at its selling price: there is no guarantee that the bed can be sold for this amount. To value the bed at its selling price would breach the principle of Conservatism because it would recognise a gain (the profit on the sale of the stock) before it is certain, which would overstate the value of assets; namely, stock. Clearly, the selling price should *not* be used to value the stock.

Given that we must use the *purchase price*, which amounts should be included?

Let's start with what is *not* included: the *GST*. Any GST on the purchase of stock will be debited to the GST Clearing account, and will simply reduce the liability the business owes to the ATO. It does not affect the economic benefit to be gained when the stock is sold.

By contrast, the supplier's price of \$800 is included as this is the key cost of the bed. However, we must also consider that without the delivery charges of \$100 the stock would not be available to sell to customers; it is part of the purchase price, and must be included in the *cost of stock*.

cost of stock

all costs incurred in order to bring stock into a condition and location ready for sale

In fact, any costs incurred in order to bring the stock into a condition and location ready for sale must be included in its cost price. These may include:

- the supplier's price
- freight in (delivery to the firm from the supplier)
- modifications
- customs/import duties
- any other buying expenses.

Adding together the supplier's price and the delivery charges, the cost of the bed is **\$900** or, put another way, the bed is worth **\$900**.

The importance of an accurate calculation of cost price

Calculating an accurate cost price for stock is important not only in terms of valuing stock in the Balance Sheet, but also in terms of earning profit. Many businesses determine their selling price by applying some sort of mark-up, which is itself based on the cost price. For example, if a firm applies a 100% mark-up, its selling price will be twice its cost price. If the firm calculates the cost price of its stock incorrectly, then it may set its selling prices too high, leading to a loss of sales volume, or too low, leading to an insufficient mark-up.

The use of the cost price in setting selling prices means that it is essential that the owner have accurate information relating to the cost price of each individual unit of stock. This is sometimes known as its **unit cost**.

STUDY TIP

Items such as advertising, wages or freight out (the cost of delivering stock to our customers) are excluded, as they are only incurred *after* the sale.

unit cost

the cost price of each individual item/unit of stock

REVIEW QUESTIONS 14.1

- 1 **Define** the Historical Cost principle.
- 2 Referring to one qualitative characteristic, **explain** why stock should be valued at its Historical Cost.
- 3 **Explain** why valuing stock at its selling price would breach Conservatism.
- 4 **Explain** why GST is excluded from the calculation of the cost of stock.
- 5 **Define** the term 'cost' as it is used in reference to stock.
- 6 **State** three costs, other than the supplier's price, which may be included in the cost price of stock.
- 7 **State** two reasons why it is important to have an accurate calculation of the cost price of stock.

14.2 PRODUCT COSTS

We have already established that the cost of stock includes all costs incurred in order to bring stock into a condition and location ready for sale. But to calculate the unit cost – the cost *per item* – it is also necessary that we are able to *allocate* those costs to each individual unit of stock.

Identifying product costs

Including a particular expense in the calculation of the unit cost of an individual item of stock requires that the cost fits the definition of a **product cost**; that is, a cost incurred in order to bring stock into a condition and location ready for sale, which can be allocated to individual units of stock on a logical basis.

This is, in effect, a two-way test. First, the cost must be incurred in order to bring the stock into a condition and location ready for sale. If this test is not met, the cost cannot be included in the unit cost of the stock. This would include costs such as the supplier's

product cost

a cost incurred in order to bring stock into a condition and location ready for sale, which can be allocated to individual units of stock on a logical basis

STUDY TIP

An absence of a logical basis to allocate costs would mean that a cost cannot be treated as a product cost, and must be treated as a period cost (see page 315).

EXAMPLE

price, freight in and modifications. Costs incurred only *after* the stock is ready for sale (such as advertising and wages) would be excluded.

Once it has been established that the cost is incurred to get stock ready for sale, we must determine if it can be allocated to individual units of stock on a logical basis. This means the cost must be directly traceable to a particular line of stock, and a *per item* cost can be calculated on some logical basis.

On 15 April 2015, MacEvoy Golf Gear purchased 15 golf bags from Bear Industries (Ch. 51). The purchase of the golf bags showed the following:

Golf bags – supplier's price	(15 bags @ \$190 each)	2 850
Cartage in		150
Total – before GST		3 000
GST (10%)		300
Total		<u><u>\$3 300</u></u>

The unit cost (that is, the cost price of one golf bag) would be calculated as:

Supplier's price	190	
Cartage in	<u>10</u>	(\$150/15 bags)
Unit cost of one bag	\$ 200	

The **supplier's price** is obviously a product cost: it is incurred to get the stock ready for sale, and can easily be allocated to individual units of stock on a logical basis as it is already expressed as **\$190 per bag**.

Cartage in is also incurred to get stock ready for sale, but it applies to the whole purchase. Can it be allocated? Given that the cartage applies only to this purchase, and 15 bags were ordered, it is logical to divide the total cost (**\$150**) by the number of bags purchased (15), to calculate the cost of cartage *per bag* (**\$10**). Thus, both the supplier's price and the cartage in can be treated as product costs, and included in the cost of each bag, or 'product'; hence the term product cost.

Recording product costs

Because product costs are treated as part of the unit cost of each item of stock, they are not recorded separately, but rather as part of the value of stock in the stock card and the Stock Control account. They are treated as part of the asset, stock.

Stock cards

In the stock card, the golf bags would be valued using the product cost of **\$200** each (**\$190** supplier's price plus **\$10** cartage in) as is shown in Figure 14.1:

Figure 14.1 Stock card: product costs

STOCK CARD										
Stock item: Golf bags					Location: Storeroom					
Stock code: B140332					Supplier: Bear Industries					
		IN			OUT			BALANCE		
Date	Details	Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
April 1	Balance							10	180	1 800
15	Ch. 51	15	200	3 000				10	180	1 800
								15	200	3 000

The supplier's price and cartage in are not identified separately; they are now just part of the same cost price of \$200.

Cash Payments Journal and General Ledger

Just as the product costs are recorded as part of the value of stock in the stock card, so are they recorded together, as one figure, in the journals and General Ledger.

Figure 14.2 shows how the purchase of the golf bags would be recorded in the Cash Payments Journal:

Figure 14.2 Cash Payments Journal: product costs

Cash Payments Journal									
Date	Details	Chq. no.	Bank	Discount Revenue	Creditors Control	Stock Control	Drawings	Sundries	GST
April 15	Stock Control	51	3 300			3 000			300
	Totals		25 000	800	19 000	3 000	3 500	-	300

As with all payments, the entire amount paid (\$3 300) would be entered in the Bank column. The amount in the Stock Control column (\$3 000) includes both the supplier's price (\$2 850) and the cartage in (\$150). There is no separate ledger account for cartage in, as this amount is included as part of the value of stock recorded in the Stock Control account.

The Cash Payments Journal would be posted to the General Ledger as usual, leaving the Stock Control account showing the following:

General Ledger					
Stock Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 1	Balance	18 000			
30	Bank	3 000			

If the purchase was on credit, the effect on the stock card and the Stock Control account would be the same, but the transaction would be recorded in the Purchases Journal, and credited to Creditors Control instead of Bank.

Product costs from other suppliers

The treatment of product costs is the same even when a different supplier provides the service of delivering or modifying our stock. For instance, let's continue to assume that the golf bags were purchased from Bear Industries, but assume that the cartage in was provided by Green Square delivery company, and paid for using **Cheque 52**.

The two payments are made to different suppliers but, assuming the cartage can be traced directly to the golf bags, both are for the same order of stock, and so can still be treated as product costs. Therefore, the cost price of each golf bag is still **\$200**, the only difference being the need to recognise that *two payments* were involved in the purchase of the stock. Figure 14.3 shows how this would be recorded in the stock card:

Figure 14.3 Stock card: product costs – more than one supplier

STOCK CARD										
Stock item: Golf bags					Location: Storeroom					
Stock code: B140332					Supplier: Bear Industries					
Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
April 1	Balance							10	180	1 800
15	Ch. 51/Ch. 52	15	200	3 000				10	180	1 800
								15	200	3 000

As long as they relate to the same items of stock, all product costs must be recorded in the stock card by adding to the cost price of each unit of stock. In this example, the extra product cost (the cartage in) was incurred on the day the stock was purchased, and so can be recorded as part of the same line in the stock card, with the 'Details' column identifying both source documents: **Cheque 51** and **Cheque 52**.

Had these two payments been made on different dates (such as April 15 and April 17), the transactions would be reported separately, but the value of stock would still end up as **\$200**, as is shown in Figure 14.4:

Figure 14.4 Stock card: product costs – more than one supplier (different dates)

STOCK CARD										
Stock item: Golf bags					Location: Storeroom					
Stock code: B140332					Supplier: Bear Industries					
Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
April 1	Balance							10	180	1 800
15	Ch. 51	15	190	2 850				10	180	1 800
								15	190	2 850
17	Ch. 52	15	10	150				10	180	1 800
								15	200	3 000

The transaction on 17 April 2015 does not increase the *quantity* of stock on hand, just its *value* (from **\$190** to **\$200** per unit).

Assuming the original scenario – with both payments made on 15 April 2015 – Figure 14.5 shows how the two payments would be recorded in the Cash Payments Journal:

Figure 14.5 Cash Payments Journal: product costs – more than one supplier

Cash Payments Journal									
Date	Details	Chq. no.	Bank	Discount Revenue	Creditors Control	Stock Control	Drawings	Sundries	GST
Apr. 15	Stock Control	51	3 135			2 850			285
	Stock Control	52	165			150			15
	Totals		25 000	800	19 000	3 000	3 500	-	300

If the purchase was made on credit, with additional costs paid in cash (or also on credit), simply record the two transactions in their appropriate journal, and show them both in the stock card as is shown in Figure 14.3 or 14.4; using whatever source document would be appropriate.

REVIEW QUESTIONS 14.2

- 1 **Define** the term 'product cost'.
- 2 **Explain** how product costs are recorded in the stock cards.
- 3 **Explain** how product costs are recorded in the General Ledger.
- 4 **Explain** how the recording of product costs differs if more than one supplier is involved.

14.3 PERIOD COSTS AND OTHER EXPENSES

Identifying period costs

In the example concerning the golf bags, there was a logical basis on which to allocate the cartage in, so it could be expressed as cartage *per unit* and treated as a product cost. In other cases where there is *no* logical basis for allocation, this may not be possible. In cases such as this, the cost must be treated as a **period cost**.

period cost
a cost incurred in order to bring stock into a condition and location ready for sale that is not allocated to individual units of stock because there is no logical basis to do so

On 23 May 2015, MacEvoy Golf Gear purchased golf clothing from Nickwell Clothing (Ch. 65). The order showed the following:

Golf shirts – supplier's price	(20 shirts @ \$23 each)	460
Golf hats – supplier's price	(10 hats @ \$8 each)	80
Cartage in		50
Total – before GST		590
GST (10%)		59
Total		\$649

EXAMPLE

In this case, there is no logical basis to allocate the cartage in of \$50, because there are two *different* types of stock ordered (golf shirts and golf hats), both of which would incur cartage. We cannot assume that the cartage in would be the same for shirts as it is for hats, and simply divide the cost between the 30 items: 20 shirts and 10 hats. Therefore, we do not know the *per item* cost of the cartage.

STUDY TIP

Both period and product costs are incurred to get stock ready for sale, so this characteristic will not distinguish between the two. It will only distinguish between costs related to stock and Other Expenses (see page 317).

As a result, we have no choice but to treat the cartage in as a period cost, and value the stock only at the price charged by the supplier, which is \$23 per shirt and \$8 per hat.

The distinction between period and product costs rests primarily on the existence of a *logical basis for allocation*. If a cost can be allocated on a per unit basis, it must be treated as a product cost. Only when this allocation is not possible should the item be treated as a period cost.

Recording period costs

Period costs are unable to be treated as part of the unit cost of each item of stock, so they must be recorded and reported separately from the stock itself. In fact, they are treated as an expense. In terms of the stock cards, the golf shirts would be valued only at their supplier's price of \$23 each, and the golf hats at \$8 each, as is shown in Figure 14.6:

Figure 14.6 Stock card: period costs

STOCK CARD										
Stock item: Golf Shirt, 40 inch, Yellow					Location: Storeroom					
Stock code: NCS40iY					Supplier: Nickwell Clothing					
		IN			OUT			BALANCE		
Date	Details	Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
May 1	Balance							8	20	160
23	Ch. 67	20	23	460				8	20	160
								20	23	460

STOCK CARD										
Stock item: Golf Hats, Large					Location: Storeroom					
Stock code: NCHL					Supplier: Nickwell Clothing					
		IN			OUT			BALANCE		
Date	Details	Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
May 1	Balance							20	7	140
23	Ch. 67	10	8	80				20	7	140
								10	8	80

Because the cartage in is not recorded in the stock cards, it must be recorded in its own separate ledger account. Figure 14.7 shows how the purchase of the golf shirts and hats would be recorded in the Cash Payments Journal:

Figure 14.7 Cash Payments Journal: period costs

Cash Payments Journal									
Date	Details	Chq. no.	Bank	Discount Revenue	Creditors Control	Stock Control	Drawings	Sundries	GST
May 23	Stock Control	67	649			540			59
	Cartage In							50	
	Totals		31 000	200	26 500	540	4 051	50	59

This shows that of the \$649 paid for the clothing, \$540 was for the stock, \$50 was for the cartage in, and \$59 was GST. Because the cartage in cannot be itemised, it cannot be included in the stock figure, and must be recorded as a separate expense. In the General Ledger there would be a separate ledger account for cartage in, as is shown below:

**General Ledger
Stock Control (A)**

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
May 1	Balance	18 000			
31	Bank	540			

Cartage In (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
May 31	Bank	50			

Other Expenses

Only costs that are incurred to get stock ready for sale can be classified as product or period costs. Costs that are *not* related to the purchase of stock are neither product costs nor period costs. Instead, they are classified as Other Expenses.

For these Other Expenses, the issue of a logical basis for allocation does not apply. As a consequence, it should not be given as a reason for excluding a particular item from the calculation of a unit cost for stock. Their defining characteristic is that rather than being incurred to bring stock into a condition and location ready for sale, they are incurred after the sale.

STUDY TIP

It could be argued that any cost that is not a product cost is a period cost, but this course distinguishes between period costs and Other Expenses.

REVIEW QUESTIONS 14.3

- 1 **Define** the term 'period cost'.
- 2 Compared to product costs, **explain** one difference in the way period costs are recorded in:
 - the stock card
 - the General Ledger.
- 3 **Explain** why delivery to customers is not considered to be part of the cost of stock.

14.4 REPORTING PRODUCT AND PERIOD COSTS

As we have noted, treating costs as product costs is preferred, because *all* the costs incurred to get stock ready for sale are allocated directly to the items of stock themselves. If the stock is unsold, the product costs are included in the value of the asset, Stock Control. When the stock is sold, the product costs are simply included in the Cost of Sales figure. In fact, product costs are recognised as being incurred, and their benefit consumed, in the Reporting Period *when stock is sold*.

Period costs, on the other hand, are recorded separately in the ledger, and reported under the heading 'Cost of Goods Sold' in the Income Statement. Further, they are recognised as being incurred in the period in which the *stock is purchased*, regardless

of whether or not the stock is sold. Unless all the stock is sold, this will overstate Cost of Goods Sold and understate profit and therefore owner's equity, and understate assets by understating the value of stock on hand.

EXAMPLE

During October 2015, HiFi Central imported 10 CD players for \$120 (plus GST) each, incurring \$350 (plus GST) to have the items modified to Australian specifications. The CD players will sell for \$250 (plus GST) each.

Product costing

Assuming the modifications were (correctly) treated as product costs, the cost of one CD player would be:

Supplier's price	120	
Plus Modifications	35	(\$350/10 CD players)
Unit cost of one CD player	<u>155</u>	

Assuming four CD players were sold during October 2015, the Income Statement (extract) would appear as shown in Figure 14.8:

Figure 14.8 Income Statement: product costs

HIFI CENTRAL		
Income Statement (extract) for October 2015		
Revenue	\$	\$
Sales (4 CD players x \$250)		1 000
Less Cost of Goods Sold		
Cost of Sales (4 CD players x \$155)		620
Gross Profit		380

Product costing recognises the expense as being incurred only in the Reporting Period when the stock is sold. Because only four out of 10 CD players have been sold, only $\frac{4}{10}$ of the \$350 spent on modifications has been recognised as being incurred in October 2015. This is included in the Cost of Sales figure of \$620.

The remaining $\frac{6}{10}$ of the modifications cost – yet to be incurred because the stock has not yet sold – is included in the value of stock on hand in the Balance Sheet at the end of October 2015 as is shown in Figure 14.9:

Figure 14.9 Balance Sheet: product costs

HIFI CENTRAL	
Balance Sheet (extract) as at 31 October 2015	
Current Assets	\$
Stock Control (6 CD players x \$155)	930

Period costing

Assuming the same data but using period costing would produce very different reports. Period costing would *not* allocate the **modifications** to each CD player, and hence value them at only their supplier's price of **\$120** each. However, it would recognise the entire **\$350** spent on **modifications** as incurred in the period when the stock is purchased. That is, the entire **\$350** would be reported as an expense in October 2015, so the Income Statement (extract) would appear as is shown in Figure 14.10:

Figure 14.10 *Income Statement: period costs*

HIFI CENTRAL		
Income Statement (extract) for October 2015		
Revenue	\$	\$
Sales (4 CD players x \$250)		1 000
Less Cost of Goods Sold		
Cost of Sales (4 CD players x \$120)	480	
Modifications	350	830
Gross Profit		170

Under period costing, the entire cost of the modifications has been recognised as an expense, even though six remain unsold: only $\frac{4}{10}$ of the CD players have been sold, but $\frac{10}{10}$ of the **\$350** has been recognised as being incurred. The six remaining (unsold) CD players will be valued only at their supplier's price of **\$120**, and thus would be shown in the Balance Sheet as is shown in Figure 14.11:

Figure 14.11 *Balance Sheet: period costs*

HIFI CENTRAL	
Balance Sheet (extract) as at 31 October 2015	
Current Assets	\$
Stock Control (6 CD players x \$120)	720

A comparison of product and period costing thus shows:

	Product costing		Period costing	
		\$	\$	\$
Income Statement				
Sales	4 units @ \$250	1 000	4 units @ \$250	1 000
Cost of Goods Sold				
Cost of Sales	4 units @ \$155*	620	4 units @ \$120	480
Plus Period Costs			Modifications	350
Gross Profit		380		170
Balance Sheet				
Stock Control	6 units @ \$155	930	6 units @ \$120	720

*Includes *part* of cost of modifications

In this example, period costing has overstated Cost of Goods Sold and, as a result, has understated profit (and thus owner's equity) by \$210 ($\frac{6}{10}$ unsold \times \$350). At the same time, it has understated Stock Control (and thus assets) by the same amount, because the six remaining CD players will be only be valued at their supplier's price of \$120.

Period costing recognises the entire cost as an expense in the Reporting Period when the stock is *purchased*, whereas product costing includes the cost as an expense only in the period in which the stock is *sold*. As a result, unless all stock is sold, and this is an important caveat, period costing will understate Cost of Goods Sold and thus understate profit and owner's equity, and understate Stock Control and assets. The exact amount by which these items will be different can be calculated by multiplying the period cost by the fraction of items of stock remaining unsold.

Conclusion

If a cost is incurred to get stock ready for sale, and can be allocated to individual units on a logical basis, then it is a product cost. Except where the cost is insignificant (see below), treating a product cost as a period cost leads to the omission of information that would be useful for decision-making, and thus breaches *Relevance*.

Where there is *no* logical basis on which to allocate the cost to individual units, period costing *must* be used. In this situation, treating a period cost as a product cost would lead to the inclusion of information that is *not* useful for decision-making.

But equally, period costing *may* be used if the cost concerned can be allocated, but is *too small* to affect decision-making; that is, is immaterial. Here we are talking about costs that would otherwise be, correctly, treated as product costs, but due to their insignificance may be treated as period costs. The insignificance of such items means that it should not really matter how they are treated, because, by definition, they will not affect decision-making.

REVIEW QUESTIONS 14.4

- 1 Compared to product costs, **explain** one difference in the way period costs are reported in the Income Statement.
- 2 **Explain** the effect on profit if period costing is used instead of product costing.
- 3 **Explain** the effect on the Balance Sheet if period costing is used instead of product costing.
- 4 **State** two circumstances in which it would be acceptable to use period costing.
- 5 Referring to one qualitative characteristic, **explain** why the correct stock valuation method should be applied.

14.5 THE LOWER OF COST AND NET REALISABLE VALUE (NRV) RULE

In the vast majority of cases, valuing stock at its cost price ensures that both the Historical Cost and Conservatism principles are upheld. It is usual for the **cost price** of the stock to be *less* than its **selling price**, so recording it in the stock cards at its original purchase price, which is required by the Historical Cost principle, also means the stock is not overstated, which is the goal of Conservatism.

In some situations, however, the **selling price** of the stock will fall *below* the **cost price** and, instead of generating a profit on the sale, it is probable that a loss will occur. For instance, if stock is damaged it may end up being sold for less than its original purchase price. In cases such as these, continuing to value stock at its cost price would breach Conservatism in two ways: it would not recognise the loss that is probable on the sale of the stock and it would overstate the asset (stock) in the Balance Sheet.

To avoid breaching Conservatism, stock must be valued at whichever is lower: its **cost price**, or what is known as its **Net Realisable Value**. This is known as the lower of cost and Net Realisable Value (NRV) rule.

Stock must be valued at the lower of 'cost' and 'Net Realisable Value'.

Net Realisable Value

The selling price of stock is also known as its realisable value; what it can realise in dollar terms on its sale. The owner must, however, take into account that there are direct costs involved in the sale of particular stock items, such as marketing and distribution. These must be subtracted to determine a particular stock item's net worth, hence the term **Net Realisable Value (NRV)**. NRV is the estimated selling price of the stock less any costs involved in its selling, marketing or distribution. In essence, it means what we can sell it for *less* what it will cost us to carry out the selling.

$$\text{Net Realisable Value (NRV)} = \text{Estimated selling price} - \text{Direct selling expenses}$$

GST, as it applies to either the selling price or the cost price, is not a factor to be considered in the valuation of stock, as it affects GST clearing, not stock or profit. Cost is calculated with the GST excluded, and so is NRV.

Reasons why NRV may fall below cost

Trading firms aim to generate profit by setting their **selling prices** higher than the **cost price**. So, in normal circumstances, the **cost** of the stock would be *lower* than its **NRV** and stock will continue to be valued according to its cost (purchase price). However, in some situations the **NRV** may fall *below* **cost**, due to:

- *physical deterioration* because the stock is damaged, or shop soiled, meaning it can no longer be sold at a profit
- *a purposeful decrease in selling price*, perhaps even below cost price, as a deliberate marketing ploy to attract new customers or force a competitor out of the market
- *a decrease in demand* because the item is no longer in fashion, or is out of season. Consequently, customers may not be willing to pay high prices. This applies particularly to clothes, sporting equipment and fads.
- *obsolescence* because the item is technically obsolete, superseded by a new model or, in the case of food items, out of date. Items such as these will be difficult to sell for more than their cost price.

Applying the lower of cost and NRV rule upholds Conservatism: by recognising losses on the stock as soon as they are probable, it ensures that stock, an asset, is not overstated. In the process, a more realistic valuation of stock will be derived, and **Relevance** will be upheld, as the information in the reports will be more useful for decision-making.

This rule must be applied on an individual basis, because the cost price of some lines of stock may still be lower than their NRV. These items will need to remain valued at their cost price, and should not be written down.

Net Realisable Value (NRV)

the estimated selling price of stock less any costs involved in its selling, marketing or distribution

STUDY TIP

The **cost price** of stock is its original purchase price *plus* any cost to get it ready for sale. **NRV** is the estimated selling price *less* any costs involved in its sale.

REVIEW QUESTIONS 14.5

- 1 Referring to one qualitative characteristic, **explain** why stock is usually valued at its Historical Cost.
- 2 **Explain** the circumstances under which valuing stock at its Historical Cost may breach Conservatism.
- 3 **Define** the term 'Net Realisable Value'.
- 4 **Explain** why stock would normally be valued at its cost, rather than its NRV.
- 5 **State** four reasons why NRV may fall below cost.
- 6 **Explain** how the application of the lower of cost and NRV rule supports Conservatism.
- 7 **Explain** why the lower of cost and NRV rule should be applied to individual stock lines.

14.6 STOCK WRITE-DOWN

Stock Write-down

the expense incurred when the NRV of an item of stock falls below its original purchase price

When the **NRV** of a stock item falls *below* its **cost price**:

- an expense will be incurred, in the form of a loss on the sale of the stock
- the asset stock must be 'written down' to reflect its lower value.

This is recognised by recording a **Stock Write-down**, which is the expense that is incurred when the NRV of an item falls below its cost price. The amount of the Stock Write-down can be calculated as the difference between its **cost** and its **NRV**.

EXAMPLE

During August 2015, Dave's Discount Appliance Store had the following transactions:

Aug.	1	Purchased 10 'Clarity' dishwashers for \$500 (plus GST) each (Inv. 29)
	8	Sold 4 dishwashers for \$650 (plus GST) each (Rec. 17)
	23	Release of new dishwasher model – 'Clarity Plus'
	31	Dave decided to reduce the selling price of the remaining 'Clarity' dishwashers to \$550 (plus GST) each, and spend \$720 (plus GST) on a special advertising campaign to promote the sale (Memo 31)

GST does not affect profit or the valuation of stock, so it can be ignored when calculating both the cost and NRV.

Calculating the NRV

The NRV of the six remaining dishwashers would be calculated as:

$$\begin{aligned}
 \text{NRV} &= \text{Estimated selling price} && - && \text{Direct selling expenses per unit} \\
 &= \$550 && && - && \$120 (\$720/6 \text{ dishwashers}) \\
 &= \$430 \text{ per dishwasher}
 \end{aligned}$$

When the dishwashers were purchased on 1 August 2015, each was valued at its **cost price** of **\$500**, as this was not only the Historical Cost, but also *lower* than the NRV; that is, the selling price of **\$650**. This is the value at which each would continue to be shown in the stock card.



By 31 August 2015 the NRV of each dishwasher (\$430) has fallen below its cost (\$500). Because stock must be valued at the lower of cost and NRV, each dishwasher must be written down from its cost (\$500) to its NRV (\$430), via a **Stock Write-down**.

Calculating the Stock Write-down

STUDY TIP

If the Stock Write-down figure turns out to be negative, the NRV is greater than the cost, so a Stock Write-down is not necessary!

The Stock Write-down of each dishwasher would be calculated as:

Stock Write-down	=	Historical Cost	–	NRV
	=	\$500	–	\$430
	=	\$70 per dishwasher		

Given that there are six dishwashers still on hand, each of which must be written down by \$70, the total **Stock Write-down** is \$420 (6 x \$70).

Recording the Stock Write-down

Remember, at the time of purchase stock is recorded at its **cost**. If the stock must be written down to its **NRV**, then both the stock card and the General Ledger must be adjusted. The stock card for dishwashers must record the write-down *per item*, as is shown in Figure 14.12:

Figure 14.12 Stock card: Stock Write-down

STOCK CARD										
Stock item: Dishwasher, Clarity				Location: Row 5, Bay 2						
Stock code: CD3000				Supplier: Fusher and Pake						
Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
Aug. 31	Balance							6	500	3 000
31	Memo 31				6	70	420	6	430	2 580

Notice that even though this entry is recorded in the Out column of the stock card, no units of stock are actually leaving the business; stock has been reduced in *value*, not in *quantity*. Each dishwasher is written down by \$70, leaving each one valued at its **NRV** of \$430 (\$500 **cost price** less \$70 **Stock Write-down**).

The General Journal entry to record the write-down of stock at its NRV is shown in Figure 14.13:

Figure 14.13 General Journal: Stock Write-down

General Journal					
Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Aug. 31	Stock Write-down	420			
	Stock Control		420		
	Write down of 6 dishwashers to NRV – release of new model (Memo 31)				

STUDY TIP

The amount used in the General Journal entry is the amount of the **Stock Write-down**, not the new balance of stock on hand.

Stock Write-down is debited to recognise the expense: the loss of an economic benefit in the form of a reduction in assets (stock), which decreases owner's equity. At the same time, the asset **Stock Control** is credited to recognise that the asset is no longer worth its Historical Cost.

This General Journal entry would be posted to the General Ledger as is shown in Figure 14.14:

Figure 14.14 General Ledger: Stock Write-down

General Ledger					
Stock Write-down (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 31	Stock Control	420	Aug. 31	Profit and Loss Summary	420
		420			420

Stock Control (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 1	Balance	10 000	Aug. 31	Cost of Sales	5 600
	Creditors Control	11 000		Cost of Sales	3 400
				Stock Write-down	420
				Balance	11 580
		\$21 000			\$21 000
Sept. 1	Balance	11 580			

As an expense account, **Stock Write-down (\$420)** would be closed to the Profit and Loss Summary account at the end of the Reporting Period, with all the Other Expense accounts. It is the new stock balance (**\$11 580**) that must be reported in the Balance Sheet.

Effect on the accounting equation

The overall effect of a **Stock Write-down** is:

	Increase/Decrease/No effect	Amount \$
Assets	Decrease (Stock Control)	420
Liabilities	No effect	
Owner's Equity	Decrease (Stock Write-down expense decreases Profit)	420

REVIEW QUESTIONS 14.6

- Define** the term 'Stock Write-down'.
- Show** how the amount of a Stock Write-down is calculated.
- Show** the General Journal entries necessary to record a Stock Write-down.
- Explain** why a Stock Write-down is recorded in the Out column of the stock card.
- State** the effect of a Stock Write-down on the accounting equation.

14.7 REPORTING A STOCK WRITE-DOWN

Because **Stock Write-down** is not a cost involved in getting the stock into a position or condition ready for sale, it should not be classified under Cost of Goods Sold: it will not affect the mark-up on stock which is reflected in Gross Profit. However, it is *related* to stock, and will affect the overall margin that the business will earn from the sale of stock. In this way, a Stock Write-down has the same effect as a stock loss or gain, and so it is reported as a deduction from Gross Profit, to determine Adjusted Gross Profit.

Figure 14.15 shows how Stock Write-down would appear in the Income Statement:

Figure 14.15 *Income Statement: Stock Write-down*

DAVE'S DISCOUNT APPLIANCE STORE		
Income Statement for August 2015		
Revenue	\$	\$
Sales		18 500
Less Cost of Goods Sold		
Cost of Sales	9 000	
Customs Duty	1 000	10 000
Gross Profit		8 500
Less Stock Write-down		420
Adjusted Gross Profit		8 080

STUDY TIP

A Stock Write-down is reported in the same place as a stock loss or gain.

Now that the dishwashers have been written down, all stock is valued at the lower of cost and NRV, and the balance of stock on hand will be reported in the Balance Sheet as it normally would.

DAVE'S DISCOUNT APPLIANCE STORE
Balance Sheet (extract) as at 31 August 2015

Current Assets	\$	\$
Bank	1 200	
Debtors Control	5 600	
Stock Control	11 580	18 380

REVIEW QUESTIONS 14.7

- 1 Explain** why Stock Write-down is not reported as part of Cost of Goods Sold in the Income Statement.
- 2 Explain** how a Stock Write-down affects Adjusted Gross Profit.

WHERE HAVE WE BEEN?

- The Historical Cost principle states that stock should be valued at its original purchase price, as this is verifiable by reference to a source document.
- The cost of stock includes all costs incurred in order to bring the stock into a condition and location ready for sale.
- Product costs can be allocated to individual units of stock on a logical basis; period costs cannot.
- Product costs are recorded as increases to the unit cost of stock in the stock cards; period costs are recorded separately in the ledger.
- Product costs are recognised as being incurred only in the period in which stock is sold; period costs are recognised as being incurred in the period in which the stock is purchased.
- To avoid breaching Conservatism, stock must be valued at the lower of cost and Net Realisable Value (NRV).
- NRV is the estimated selling price of the stock less any costs involved in its selling, marketing or distribution.
- Stock Write-down is calculated by deducting NRV from (historical) cost.
- The overall effect of a Stock Write-down is to decrease both assets and owner's equity.

EXERCISES

EXERCISE 14.1 COST OF STOCK

 page 296

On 1 March 2015, El Fresco Living had 25 barbecues on hand worth \$85 each. On 4 March 2015, the business purchased 40 barbecues at a cost of \$80 (plus GST) each, with cartage in costing \$10 (plus GST) per barbecue (Ch. 102). The barbecues will have a selling price of \$200 (plus GST) each.

Required

- Explain** why the GST on the purchase is **not** included in the calculation of the cost price of stock.
- Calculate** the cost price of one of the barbecues purchased on 4 March 2015.
- Referring to your answer to part 'b', **explain** your treatment of 'cartage in'.
- Record** the purchase on 4 March 2015 in the stock card for barbecues.
- Record** Cheque 102 in the Cash Payments Journal of El Fresco Living.



EXERCISE 14.2 COST OF STOCK

 page 297

As at 1 January 2015, Comfy Couches had eight couches on hand with a cost price of \$1 590 each.

On 3 January 2015, the business purchased 10 couches from Wilson Products (Inv. 65), with the details of the purchase provided as follows:

Supplier's price	15 000
Anti-stain treatment	1 300
Sub-total	16 300
GST	1 630
Total invoice cost	\$17 930

Each couch has a selling price of \$4 000 plus GST, with a special advertising campaign to sell the couches costing \$2 200 including GST.

Required

- Referring to one accounting principle, **explain** why the couches cannot be valued at their selling price.
- Calculate** the cost price of one of the couches purchased on 3 January 2015.
- Referring to your answer to part 'b', **explain** your treatment of the advertising campaign.
- Record** the purchase on 3 January 2015 in the stock card for Couches.
- Record** the purchase on 3 January 2015 in the appropriate journal of Comfy Couches.

EXERCISE 14.3 PRODUCT VERSUS PERIOD COSTING

 page 298

Ben Scott owns an electrical shop called High Voltage, which is the sole distributor of a new combined washer/dryer. The details of the new washer/dryer are:

Invoice price	900	per unit
Freight in	10%	of invoice price
Modification costs	\$25	per unit
Insurance of stock	\$400	per month

In November 2015, Ben purchased 40 washer/dryers. By 30 November 2015, 25 of the washer/dryers had been sold for \$2 500 (plus GST) each.

Required

- Explain** why the modification costs should be treated as product costs.
- Explain** why insurance of stock must be treated as a period cost.
- Calculate** the unit cost of one washer/dryer.
- Calculate** Gross Profit on washer/dryers for November 2015.
- Referring to one qualitative characteristic, **explain** why it is important that the cost price of stock is calculated accurately.

EXERCISE 14.4

PRODUCT VERSUS PERIOD COSTS

 page 299

As at 1 February 2015, FP Bicycles had four mountain bikes on hand that it had purchased for \$155 (plus GST) each. On 12 February 2015, FP Bicycles purchased 10 mountain bikes for a total cost of \$1 540 (including GST) from Wonder Cycles (Inv. A13).

On the same day, FP Bicycles paid a further \$170 (plus GST) for sign writing on the new bikes (Ch. 912). At the end of February 2015, eight mountain bikes remained on hand.

Required

- Calculate** the cost of one of the mountain bikes purchased on 12 February 2015.
- Referring to your answer to part 'a', **explain** your treatment of the cost of sign writing.
- Record** the purchase of stock on 12 February 2015 in the stock card for mountain bikes.
- Record** the purchase of stock on 12 February 2015 in the appropriate journals of FP Bicycles.
- Calculate** the value of mountain bikes on hand as at 28 February 2015.
- Calculate** the value of mountain bikes on hand as at 28 February 2015 if the cost of the sign writing had been treated as a period cost.
- State** the effect on the valuation of stock on hand as at 28 February 2015 if the cost of sign writing had been treated as a period cost.

EXERCISE 14.5

PRODUCT VERSUS PERIOD COSTS

 page 301

Static Sound and Vision commenced Operations on 1 April 2015, selling televisions and stereo systems. The owner has provided the following document relating to the purchase of stock on 1 April 2015:

Date		Details	Qty	Unit price \$	Total \$
Apr. 1		60 inch television	12	650	7 800
		Mini stereo system	5	300	1 500
		Freight			300
		Subtotal			9 600
		GST			960
		Total		\$	10 560



Wired Electronics

ABN: 66 765 400 008
89 Mill St
Bendigo VIC 3550

TAX INVOICE
Invoice 201

Terms: 5/7, n/30

Charge to: Static Sound and Vision (ABN: 12 500 438 966)
Bell St, Coburg VIC 3058

During April 2015, three televisions were sold for \$1 320 (including GST) each, and two stereo systems were sold for \$550 (including GST) each. One television was written off as Stock Loss due after it was dropped in the showroom.

Required

- a **Record** Invoice 201 in the journals of Static Sound and Vision.
- b Referring to your answer to part 'a', **explain** your treatment of freight.
- * c **Prepare** an Income Statement for Static Sound and Vision for April 2015, showing Gross Profit and Adjusted Gross Profit. (A full Income Statement is **not** required.)
- d **Explain** how period costs can understate profit.

EXERCISE 14.6

PRODUCT VERSUS PERIOD COSTS

 page 303

Nordic Supplies purchases ski goggles in shipments of 100 units. They are sold under Nordic Supplies own brand name, and free delivery is offered to customers. The following details have been provided for a purchase on 1 July 2015 (amounts do **not** include GST):

Supplier's invoice price	\$9 000	
Attachment of brand badges	80	
Packaging and delivery to Nordic Supplies	1 600	
Cost of delivery to customers	9	per unit
Insurance of stock in Nordic Supplies store	1 800	per annum

Additional information:

- During July 2015, 30 pairs of goggles were sold.
- The accountant has decided to treat the cost of attaching the brand badges as a period cost.

Required

- a **Discuss** the accountant's decision to treat the cost of attaching the brand badges as a period cost.
- b **Calculate** the cost price of each pair of goggles purchased on 1 July 2015.
- c Referring to your answer to part 'b', **explain** your treatment of insurance of stock.
- d **Calculate** Cost of Goods Sold for goggles for July 2015.
- e **Calculate** Cost of Goods Sold for goggles for July 2015 if packaging and delivery had been treated as a period cost.
- f **State** the effect on the accounting equation of Nordic Supplies if packaging and delivery had been treated as a period cost.

EXERCISE 14.7

LOWER OF COST AND NRV

 page 304

During 2005, Malcolm's Memorabilia purchased commemorative plates of Australia's first World Cup qualification in 30 years. As at 1 May 2015 it still had 40 plates on hand, each with a cost price of \$20. The plates were originally sold for \$30 plus GST, but on 31 May 2015 the owner estimated they could be sold for only \$12 (plus GST) each (Memo 39).

Required

- a **Calculate** the value of plates on hand as shown in the stock card at 1 May 2015.
- b Referring to one accounting principle, **explain** why the plates should be valued at the lower of cost and NRV.

- c Calculate** the total Stock Write-down on the plates as at 31 May 2015.
- d Show** the General Journal entries necessary to record the Stock Write-down of the plates.
- e Record** the Stock Write-down in the stock card for plates.
- f Explain** how the Stock Write-down will affect the Balance Sheet of Malcolm's Memorabilia as at 31 May 2015.

EXERCISE 14.8
 page 306
LOWER OF COST AND NRV

Sukhveer Guneratne owns Sir Vaylance, a shop that sells security cameras. As at 1 September 2015, the firm had 14 Viewmaster video cameras in stock, valued at \$450 each. On 21 September 2015, six video cameras were sold for \$800 (plus GST) each (Rec. 24). On 30 September 2015, the owner decided to lower the selling price of the remaining cameras to \$500 (plus GST) each (Memo 19). To encourage the sale of these cameras to make way for new stock she has offered her sales staff 15% commission on each sale.

Required

- a Define** the term 'Net Realisable Value (NRV)'.
- b Calculate** the total NRV of the cameras.
- c Show** the General Journal entries necessary to record the Stock Write-down of the cameras.
- d Record** the transactions for September 2015 in the stock card for cameras.
- * **e Prepare** an Income Statement for Sir Vaylance for September 2015, which shows Gross Profit and Adjusted Gross Profit. (A full Income Statement is **not** required.)

EXERCISE 14.9
 page 308
LOWER OF COST AND NRV

Girlfriend Fashions has provided the following information after conducting a stocktake on 31 December 2015 (Memo 17):

Stock item	Qty	Cost price per unit	Estimated selling price per unit	Direct selling expenses per unit
Jeans	200	\$50	\$75	\$5
Shirts	50	\$35	\$40	\$8
Hats	400	\$20	\$28	\$3

Required

- a Calculate** the value of stock on hand as at 31 December 2015 as would be shown in the stock cards.
- b Calculate** the value of stock on hand as at 31 December 2015 by applying the lower of cost and NRV rule.
- c State** three reasons that may explain why the NRV of the stock has fallen below its cost.
- d Show** the General Journal entries necessary to write down the value of stock on 31 December 2015. (Narration is **not** required.)
- e Record** the Stock Write-down in the appropriate stock card.
- f State** the effect on the accounting equation of Girlfriend Fashions if the stock is **not** written down.



EXERCISE 14.10 LOWER OF COST AND NRV

 page 310

High Country Camping has produced the following information regarding its stock of snow jackets as at 31 October 2015:

Snow jackets:	Stock on hand	50 @ \$70	3 500
		20 @ \$72	1 440

The normal selling price of each jacket is \$250 (plus \$25 GST) each, but as it is nearing the end of the ski season, the owner estimates each jacket will only sell for \$80 (plus \$8 GST) each (Memo 73). This will require extra selling expenses costing \$1 400 (plus \$140 GST).

Required

- Referring** to one accounting principle, **explain** why it would be incorrect to value the jackets at \$250 each.
- Referring** to one qualitative characteristic, **explain** why the jackets should no longer be valued at their Historical Cost.
- Calculate** the Stock Write-down on snow jackets as at 31 October 2015.
- Show** the General Journal entries necessary to write down the snow jackets as at 31 October 2015.
- Record** the Stock Write-down in the stock card for snow jackets.

EXERCISE 14.11 PRODUCT VERSUS PERIOD COSTS

 page 312

On 1 August 2015, Suave Suits had 10 pure wool suits on hand, which it had purchased for \$195 (plus GST) each during July 2015. The following transactions occurred during August 2015:

TAX INVOICE Invoice: 85		 Woolen Mills Australia Quality Clothing Terms: 10/7, n/30		
Original				
ABN: 45 111 981 342				
Charge to: Suave Suits (ABN: 44 505 612 349) Geelong VIC 3220				
Date	Details	Qty	Unit price \$	Total \$
3/8/15	Pure wool suits	16	175	2 800
	Tailoring costs			480
less	Sales discount			80
	Subtotal			3 200
plus	GST			320
	Total		\$	3 520

On 9 August 2015, Suave Suits paid Woollen Mills Australia \$3 168, receiving a \$352 discount for early payment. At the end of August 2015, four of the suits purchased on 3 August 2015 remained on hand.

Required

- a Calculate** the cost of one of the suits purchased on 3 August 2015.
- b Record** the purchase of stock on 3 August 2015 in the stock card for wool suits.
- c Referring** to your answer to part 'b', **explain** your treatment of the discount for early payment.
- d Record** the purchase of stock on 3 August 2015 in the appropriate journal.
- e Explain** the effect on the Balance Sheet of Suave Suits as at 31 August 2015 if the tailoring costs had been treated as period costs.
- f** Given that the discount and GST are both applied at a rate of 10%, **explain** why the dollar amount of the discount is greater than the dollar amount of GST.

EXERCISE 14.12

 page 314

RECORDING AND REPORTING FOR STOCK

Zippy Scooters sells one type of scooter to selected retail stores. The scooters are manufactured by BX Bikes in Wangaratta and delivered to the shop in Carlton in lots of five. The following transactions took place during July 2015:

- July 1 Stock on hand: 16 scooters valued at \$1 800 each
- 5 Credit sale of 9 scooters for \$3 000 (plus GST) each (Inv. V23)
- 12 Purchase of 5 scooters at \$1 400 each plus \$2 000 freight (Inv. 42). Total GST on the purchase amounted to \$900. A local mechanic was paid \$110 (including GST) per scooter to fit each one with a sports kit (Ch. 188)
- 14 A customer, J. Fangio, returned a scooter due to a faulty engine (CN 17) and received a credit for \$3 000 plus GST
- 16 Faulty scooter returned to the manufacturer; Zippy Scooters received a credit note for \$1 980 including GST (CN 922)
- 26 Credit sale of 9 scooters for \$3 300 (including GST) per bike (Inv. V24)
- 31 Stocktake revealed three scooters on hand, but one is scratched and damaged, and can only be sold for \$1 200 (Memo 36)

Required

- a Calculate** the cost price of each scooter purchased on 12 July 2015.
- b** Referring to your answer to part 'a', **explain** your treatment of the cost of the sports kit.
- c** Referring to one accounting principle, **explain** why Memo 36 should be recognised in the financial reports of Zippy Scooters.
- d Record** the transactions for July 2015 in the stock card for scooters.
- e Show** the General Journal entries necessary to record the transactions on 14, 16 and 31 July 2015.
- * **f Prepare** an Income Statement for Zippy Scooters for July 2015, which shows Gross Profit and Adjusted Gross Profit. (A full Income Statement is **not** required.)
- g State** the effect on the Balance Sheet of Zippy Scooters as at 31 July 2015 if the cost of the sports kit had been treated as a period cost.
- h Discuss** whether the damaged scooter should be recorded in a separate stock card.

Where are we headed?

After completing this chapter, you should be able to:

- **identify** and **record** the credit purchase of a non-current asset in the General Journal and General Ledger
- **distinguish** between Creditors Control and a sundry creditor
- **record** a payment to a sundry creditor in the Cash Payments Journal and General Ledger
- **report** a payment to a sundry creditor in the Cash Flow Statement
- **define** and **identify** the cost of a non-current asset
- **define** 'depreciation' and other related terms
- **explain** the purpose of depreciation and its relationship to accounting principles and qualitative characteristics
- **calculate** depreciation using the reducing balance method
- **justify** the selection of a particular depreciation method
- **explain** the effect on the accounting reports of using different depreciation methods
- **record** a cash sale of a depreciable non-current asset in the journals and General Ledger
- **record** a trade-in of a depreciable non-current asset in the General Journal and General Ledger
- **report** a profit or loss on the disposal of a non-current asset in the Income Statement
- **identify** and **explain** the reasons for a profit or loss on the disposal of a non-current asset.

CHAPTER 15

ACCOUNTING FOR NON-CURRENT ASSETS

KEY TERMS

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

- depreciation
- depreciation expense
- loss on disposal of asset
- profit on disposal of asset
- trade-in
- under-depreciation
- over-depreciation.

15.1 CREDIT PURCHASES OF NON-CURRENT ASSETS

Given the large outlays of cash that are sometimes necessary to purchase non-current assets (such as vehicles, furniture or equipment), many businesses now choose to purchase these items on credit. This allows them to repay the creditor in instalments rather than in one large payment.



Given the large outlays of cash that are sometimes required to purchase non-current assets, such as vehicles, many businesses now choose to purchase these items on credit

Where a business purchases a non-current asset on credit, the transaction must be recorded in the General Journal before it is posted to the General Ledger.

EXAMPLE

On 4 July 2015 an invoice for \$1 650 was received from Max's Mart for \$1 500 worth of office furniture, plus \$150 GST (Inv. A13).

This transaction would be recorded in the General Journal as shown in Figure 15.1:

Figure 15.1 General Journal: credit purchase of a non-current asset

General Journal					
Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
July 4	Office Furniture	1 500			
	GST Clearing	150			
	Sundry Creditor – Max's Mart		1 650		
	Credit purchase of office furniture (Inv. A13)				

As the business has acquired a new asset, **Office Furniture** is debited (\$1 500) to increase this asset, and **GST Clearing** is debited (\$150) to decrease the liability owed to the ATO. Both the cost of the Office Furniture and the GST are owed to Max's Mart, so the sum of these two figures (\$1 500 + \$150 = \$1 650) is credited to a new liability account called **Sundry Creditor – Max's Mart**.

This entry would be posted to the General Ledger accounts as shown in Figure 15.2:

Figure 15.2 General Ledger: credit purchase of a non-current asset

General Ledger					
Office Furniture (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	26 000			
31	Sundry Creditor – Max's Mart	1500			

GST Clearing (A/L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 31	Bank	600	July 1	Balance	690
	Creditors Control	800	31	Bank	1 100
	Sundry Creditor – Max's Mart	150		Debtors Control	1 900

Sundry Creditor – Max's Mart (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 31	Office Furniture/ GST Clearing	1 650

The cross-reference on the credit side of the sundry creditor account refers to **Office Furniture/GST Clearing** to reflect that the creditor is owed an amount for the asset, and also the GST on the purchase of that asset.

Sundry creditors

In the example above, the amount owing was not credited to the Creditors Control account, but rather to a new liability account called **Sundry Creditor – Max's Mart**. This is because the Creditors Control account is used only for amounts owed for the purchase of stock. Where a firm purchases an asset other than stock, a separate sundry creditor account, which names the sundry creditor, must be created in the General Ledger. The sundry creditor is still a current liability, but has its own account in the General Ledger, and would be reported separately in the Balance Sheet.

Because they are separate to the Creditors Control account, payments made to these sundry creditors must be recorded in the Sundries (rather than the Creditors Control) column of the Cash Payments Journal. And because such a payment would be a cash outflow related to the purchase of a non-current asset, it would be reported as an Investing outflow in the Cash Flow Statement.

STUDY TIP

A business may have more than one sundry creditor, so the name of each sundry creditor must always be identified.

STUDY TIP

We now have two Investing outflows in the Cash Flow Statement: cash purchase of non-current asset, and payment to sundry creditor.

The cost of a non-current asset

As we already know, the cost of an asset includes all costs incurred in order to bring the asset into a location and condition ready for use that will provide a benefit for the life of the asset. (See Chapter 11 for a reminder.) This will obviously include the supplier's price, but may also include costs such as delivery, modification and installation. Where these other costs exist, they must be included in the cost price of the asset recorded in the General Journal.

EXAMPLE

On 12 March 2015, Johnson's Deliveries purchased a new delivery van on credit from Jane Motors. The invoice (Inv. 42) showed:

Delivery van	\$21 000
Shelving (installed)	500
Service contract (12 months)	800
GST	2 230
	<hr/>
Invoice total	\$24 530
	<hr/> <hr/>

Costs such as delivery, modification and installation are included in the cost of a non-current asset if they will bring a benefit over its useful life



As it is a non-current asset, the cost of the van includes all costs that will extend over its life:

Delivery van	\$21 000
Plus Shelving	500
	<hr/>
Cost of van	\$21 500
	<hr/> <hr/>

In contrast, the service contract does not extend for the life of the asset, so it is not part of the cost of the delivery van. As a 12 month contract, it is instead a current asset: **Prepaid Service Contract**. It may not yet be paid, but when the cash is paid to the creditor to settle the debt, \$800 will be for the purchase of this current asset.

The General Journal entry to record the credit purchase of the delivery van is shown in Figure 15.3:

Figure 15.3 General Journal: credit purchase of a non-current asset (with other costs)

General Journal					
Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
March 12	Delivery Van	21 500			
	Prepaid Service Contract	800			
	GST Clearing	2 230			
	Sundry Creditor – Jane Motors		24 530		
	Credit purchase of delivery van (Inv. 42)				

This entry would be posted to the General Ledger accounts as shown in Figure 15.4:

Figure 15.4 General Ledger: credit purchase of a non-current asset (with other costs)

General Ledger					
Delivery Van (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Mach 31	Sundry Creditor – Jane Motors	21 500			

Prepaid Service Contract (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
March 31	Sundry Creditor – Jane Motors	800			

GST Clearing (A/L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
March 31	Bank	610	March 1	Balance	720
	Creditors Control	950	31	Bank	1 320
	Sundry Creditor – Jane Motors	2 230		Debtors Control	1 640

Sundry Creditor – Irene Motors (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 31	Van/Prepaid Service Contract/ GST Clearing	24 530

The full cost of the van is debited to **Delivery Van (\$21 500)**; the **Prepaid Service Contract** is debited (**\$800**); and the total GST (on the van, shelving and service contract) is debited to **GST Clearing (\$2 230)**. The total invoice price (**\$24 530**) is credited to **Sundry Creditor – Jane Motors** to show the total owing for the van, the service contract and the GST.

REVIEW QUESTIONS 15.1

- 1 **Explain** one reason why a firm may choose to use credit to purchase a non-current asset.
- 2 **Explain** why a credit purchase of a non-current asset must be recorded in the General Journal.
- 3 **Show** the General Journal entries necessary to record a credit purchase of a non-current asset.
- 4 **Explain** the difference between Creditors Control and a sundry creditor.
- 5 **Explain** how a payment to a sundry creditor would be:
 - recorded in the Cash Payments Journal
 - reported in the Cash Flow Statement.
- 6 **Define** the term 'cost' as it refers to non-current assets.

15.2 DEPRECIATION OF NON-CURRENT ASSETS

Chapter 11 introduced the process of **depreciation** for non-current assets. This process is applied because although non-current assets provide an economic benefit for more than 12 months (through their contribution to revenue), most do not provide an economic benefit forever; they have a finite useful life. This means that gradually, over their useful life, their value is being consumed by the business. The process of depreciation is applied as a mechanism for calculating **depreciation expense**, which is that part of the cost of a non-current asset that has been consumed, or incurred, in the current Reporting Period.

The General Journal entries to record depreciation expense are:

DR	Depreciation – Non-Current Asset (E)
CR	Accumulated Depreciation – Non-Current Asset (– A)

This balance day adjustment has the effect of increasing expenses in the Income Statement. It also decreases the **carrying value** of the non-current asset in the Balance Sheet, by increasing the negative asset of **accumulated depreciation**.

As a result, depreciation expense ensures the accurate calculation of profit, by comparing revenues earned against expenses incurred in the current Reporting Period. It also ensures that the reports (the Income Statement and the Balance Sheet) include all information that is useful for decision-making, therefore upholding Relevance.

depreciation

the allocation of the cost of a non-current asset over its useful life

depreciation expense

that part of the cost of a non-current asset that has been consumed in the current Reporting Period

carrying value

the value of a non-current asset that is yet to be consumed/allocated as an expense, plus any residual value

accumulated depreciation

the value of a non-current asset that has been consumed/incurred over its life thus far

REVIEW QUESTIONS 15.2

- 1 **Define** the following terms:
 - depreciation
 - depreciation expense
 - accumulated depreciation
 - carrying value.
- 2 **Show** the General Journal entries to record the balance day adjustment for depreciation expense.
- 3 **State** the effect of depreciation on the accounting equation.
- 4 Referring to one accounting principle, **explain** the purpose of depreciating a non-current asset.

15.3 METHODS OF DEPRECIATION

Chapter 11 introduced only one method of depreciation: the straight-line method.

Straight-line method

Under the straight-line method, depreciation expense is calculated using the straight-line formula:

Depreciation expense: straight-line formula

$$\text{Depreciation expense (\$ per annum)} = \frac{\text{HC} - \text{RV}}{\text{Life}}$$

<i>Where:</i>	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.

Alternatively, straight-line depreciation could be calculated using the straight-line rate formula:

Depreciation expense: straight-line rate formula

$$\text{Depreciation expense (\$ per annum)} = \text{Historical Cost} \times \text{Depreciation rate}$$

The assumption made by this method of depreciation is that the asset being depreciated will *contribute evenly to revenue*, doing the same job when it is old as when it is new. Typically, this would include assets with few moving parts, such as Office Furniture, and fixtures and fittings. The value of an asset, as measured by its cost, that contributes evenly to revenue is therefore *consumed evenly over its useful life*. This is recognised by the fact that over the life of the asset the straight-line method allocates depreciation evenly; that is, by the same amount each year. In this way, the straight-line method attempts to match the depreciation expense incurred against the revenue that the non-current asset has earned in each Reporting Period.

Reducing balance method

Not all assets contribute to revenue evenly over their lives. An asset with moving parts (such as equipment, a photocopier or a vehicle) is likely to be more efficient and productive when it is new, and therefore *contribute more to revenue at the start of its useful life* than at its end. The value (cost) of an asset that contributes more to revenue when it is new (and less as it ages) is therefore *consumed more at the start of its useful life* than at its end, and this must be reflected by the depreciation expense.

The reducing balance method of depreciation assumes that the asset will contribute more to revenue at the start of its life, when it is new, efficient and productive. As a consequence, this method allocates more depreciation expense at the start of the asset's life. Under this method, as the asset ages, its contribution to revenue decreases and so too does the depreciation expense.

Using the reducing balance method ensures that the depreciation expense and the revenue the asset earns are matched in each Reporting Period. Both are higher at the start, but reduce over the life of the asset.

REVIEW QUESTIONS 15.3

- 1 **Show** the formula for calculating depreciation under the straight-line method using the:
 - useful life
 - rate of depreciation.
- 2 **State** the assumption that underlies the straight-line method of depreciation in relation to how assets contribute to revenue.
- 3 **State** the assumption that underlies the reducing balance method of depreciation in relation to how assets contribute to revenue.
- 4 **Identify** three non-current assets that should be depreciated using the reducing balance method of depreciation.
- 5 **Explain** how the reducing balance method of depreciation allocates depreciation expense.

15.4 CALCULATING DEPRECIATION EXPENSE USING THE REDUCING BALANCE METHOD

Under the straight-line method, depreciation expense is the same each year because it is calculated as a percentage of the **Historical Cost** of the asset. By contrast, the reducing balance method calculates depreciation expense as a percentage of the **carrying value**.

On 1 January 2015, Finch Fabrics purchased a cutting machine for \$10 000 plus \$1 000 GST. The asset is expected to have a useful life of five years and a residual value of \$2 000, and is to be depreciated at 27.52% per annum using the reducing balance method.

EXAMPLE

Reducing balance rate of depreciation

The first thing that may strike you about the example above is that the rate is not given as a simple figure, but rather as 27.52%. As a rule of thumb, the reducing balance rate is approximately 1.5 times the straight-line rate. However, the word *approximately* is important: it is not *exactly* 1.5 times. The formula for calculating the rate of depreciation under the reducing balance method is quite complicated.

Depreciation expense: reducing balance rate

$$\text{Depreciation rate} = 100 \left(1 - \sqrt[n]{\frac{\text{Residual value}}{\text{Historical Cost}}} \right)$$

Where 'n' refers to the 'number' of years for which the non-current asset will be used to earn revenue; that is, its useful life.

STUDY TIP

The reducing balance rate will always be specified in this course.

Knowledge of this formula is beyond the requirements of this course: the rate will always be provided, so there is no need to remember it. If the rate is known, which in this course it will be, calculating depreciation expense simply involves multiplying the **carrying value** by the rate.

Depreciation expense: reducing balance formula

Depreciation expense: reducing balance rate

$$\text{Depreciation expense (\$ per annum)} = \text{Carrying value} \times \text{Depreciation rate}$$

where **carrying value** = **Historical Cost** - **accumulated depreciation**

Because this formula calculates depreciation expense as a percentage of the **carrying value**, and the carrying value reduces every period, so too will the depreciation expense.

Depreciation expense for the year ended 31 December 2015

Using the reducing balance formula, the depreciation expense for Finch Fabrics' cutting machine for the year ended 31 December 2015 would be calculated as shown:

$$\begin{aligned} \text{Depreciation expense} &= \text{Carrying value} \times \text{Depreciation rate} \\ &= \$10\,000 \times 27.52\% \\ &= \$2\,752 \end{aligned}$$

For the first year of the asset's life, its **carrying value** will be the same as its **Historical Cost** (that is, \$10 000), and **depreciation expense** will be \$2 752. As it is the first year of the asset's life, its depreciation expense would then become its **accumulated depreciation** at the end of the year. The asset would thus be reported in the Balance Sheet as is shown on the next page:

FINCH FABRICS

Balance Sheet (extract) as at 31 December 2015

Non-current Assets	\$	\$
Cutting Machine	10 000	
Less Accumulated Depreciation	2 752	7 248

Depreciation expense for the year ended 31 December 2016

For the second year of the asset's life (2016), its carrying value would be reduced by the value of accumulated depreciation from 2015. Using this new carrying value (\$7 248) the

$$\begin{aligned}
 \text{Depreciation expense} &= \text{Carrying value} \times \text{Depreciation rate} \\
 &= \$7\,248 \times 27.52\% \\
 &= \$1\,995
 \end{aligned}$$

depreciation expense for 2016 would be calculated as shown:

Because of the accumulated depreciation from 2015 (\$2 752), the carrying value for 2016 has decreased (from \$10 000 to \$7 248), resulting in a decrease in depreciation expense (from \$2 752 to \$1 995). Thus, the reducing balance method allocates more depreciation expense at the start of the asset's life, and less as it ages. This pattern will continue for the life of the asset, as is shown in Figure 15.5:

Figure 15.5 Reducing balance depreciation over time*

	2015	2016	2017	2018	2019
Historical Cost	10 000	10 000	10 000	10 000	10 000
Less Accumulated Depreciation	Nil	2 752	4 747	6 193	7 241
Carrying Value	10 000	7 248	5 253	3 807	2 759
Depreciation Expense	2 752	1 995	1 446	1 048	759

*Some figures adjusted for rounding purposes

Calculating depreciation for less than a year

Just like the straight-line method, the reducing balance method calculates depreciation for a year. Should the asset be under the control of the firm for less than a year, or the Reporting Period be less than a year, the amount would need to be adjusted. The safest way to do this is to divide the yearly depreciation expense by 12 (months), then multiply by the number of months appropriate to the Reporting Period.

STUDY TIP

See Section 11.8 on page 253 for a reminder of how to adjust for depreciation for less than a year. Remember to use the reducing balance formula to calculate depreciation expense in the first place.

REVIEW QUESTIONS 15.4

- 1 Explain** how the straight-line and reducing balance methods differ in their calculation of depreciation expense.
- 2 Show** the formula for calculating depreciation under the reducing balance method.
- 3** Referring to the formula, **explain** why the reducing balance method allocates less depreciation expense over the life of the asset.

15.5 COMPARING DEPRECIATION METHODS

Although the method of calculation will change the amount of depreciation expense, some aspects *remain the same* regardless of which method is chosen. These include:

- the General Journal entries required to record depreciation expense; that is
 - DR Depreciation – Non-Current Asset (E)
 - CR Accumulated Depreciation – Non-Current Asset (– A)
- the reporting of depreciation expense in the Income Statement (as ‘Other Expense’) and accumulated depreciation in the Balance Sheet (as a negative asset)
- the effect on the accounting equation and Balance Sheet; that is
 - an increase in accumulated depreciation leading to a decrease in assets
 - an increase in expenses leading to a decrease in Net Profit and decrease in owner’s equity.

What *will* differ depending on the depreciation method is the amount of depreciation expense charged in each Reporting Period:

- Using the straight-line method, depreciation expense will be the *same each year*. This does not mean that the asset is not ageing, or that its productive capacity is not being consumed, just that it is being consumed evenly.
- Using the reducing balance method, depreciation expense will be *higher at the start and decrease as the asset ages*.

If the fabric cutting machine (from the example on page 341) had been depreciated using the straight-line method, depreciation expense would be \$1 600 per year – a rate of 16% (of the **Historical Cost**). This compares with a reducing balance rate of 27.52% (of the **carrying value**).

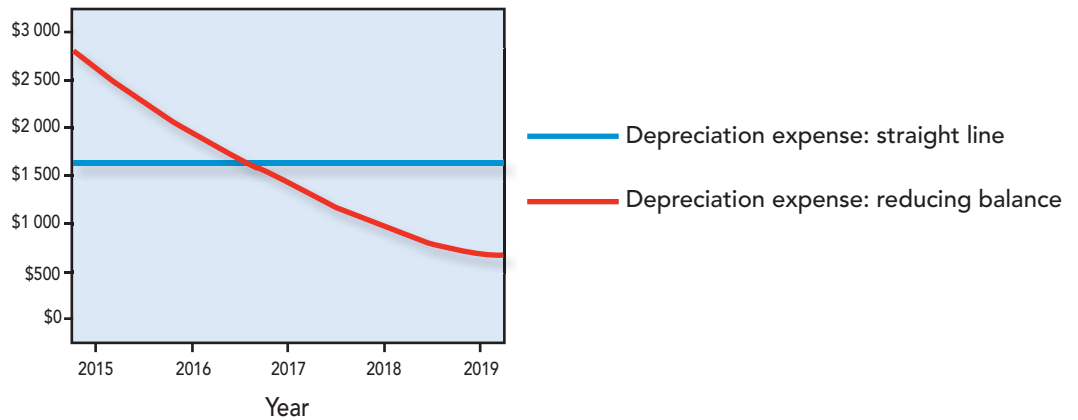
Figure 15.6 shows how the straight-line and reducing balance methods will generate differing amounts for depreciation expense and, as a result, different results in the Income Statement and Balance Sheet, over the life of the asset:

Figure 15.6 Comparison of straight-line and reducing balance methods

Year	Straight-line method (Historical Cost x 16%)				Reducing balance method (carrying value x 27.52%)			
	Historical Cost	Accumulated depreciation	Carrying value	Depreciation expense	Historical Cost	Accumulated depreciation	Carrying value	Depreciation expense
2015	10 000	Nil	10 000	1 600	10 000	Nil	10 000	2 752
2016	10 000	1 600	8 400	1 600	10 000	2 752	7 248	1 995
2017	10 000	3 200	6 800	1 600	10 000	4 747	5 253	1 446
2018	10 000	4 800	5 200	1 600	10 000	6 193	3 807	1 048
2019	10 000	6 400	3 600	1 600	10 000	7 241	2 759	759
			Total	8 000			Total	8 000

This difference in depreciation expense can be represented graphically, as is shown in Figure 15.7:

Figure 15.7 Depreciation expense: graphical comparison

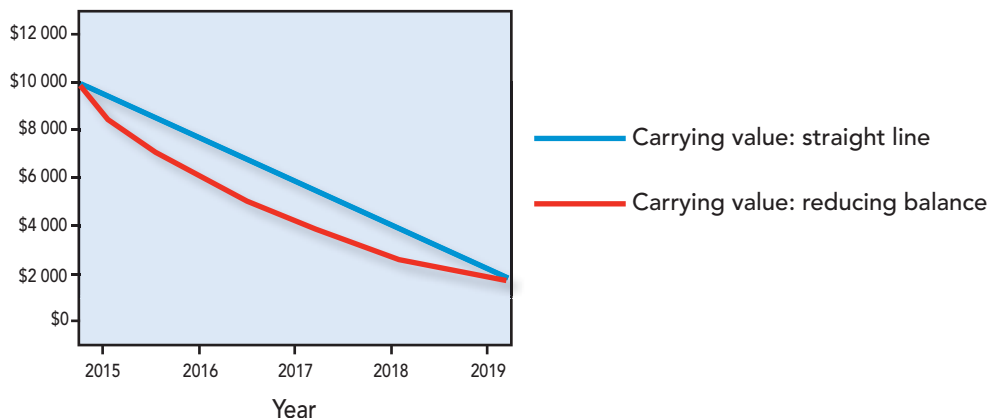


The straight-line method allocates \$1 600 depreciation expense per year, for every year of the asset's useful life. In comparison, the reducing balance method allocates more depreciation expense than the straight-line method in 2015 (\$2 752) and 2016 (\$1 995), but less in 2017, 2018 and 2019.

Therefore, in the early years the reducing balance method will cause Net Profit to be lower than it would be using the straight-line method, but in later years Net Profit would be higher than if the straight-line method was used.

In terms of the Balance Sheet, the reducing balance method will mean the carrying value of the asset decreases faster than using the straight-line method. This is shown in Figure 15.8:

Figure 15.8 Carrying value: graphical comparison



Although Figure 15.8 shows the difference at the end of each individual Reporting Period, it also shows that both methods end up at the same point: a carrying value at the end of the asset's life of \$2 000, which is its residual value. This is because although each method gives a different depreciation expense in *each Reporting Period*, both methods will (if the rates have been calculated accurately) calculate the same total depreciation expense over *the life of the asset*. In this example, both methods result in a total depreciation of \$8 000.

Selecting a depreciation method

The key factor to consider in choosing a depreciation method is the revenue-earning pattern of the asset:

- If the asset contributes evenly to revenue, and its cost is consumed evenly, over its life, the straight-line method should be used.
- If the asset contributes more to revenue, and its cost is consumed more, at the start of its life and less as it ages, the reducing balance method should be used.

It is the asset itself, and how it contributes to revenue, that determines which method of depreciation is appropriate. Therefore, a business may use the straight-line method for some assets, and the reducing balance method for others.

While this choice exists, the accounting principle of Consistency demands that once a method is chosen, that method should be used from one period to the next. This allows reports to be compared from one period to the next, maintaining Comparability. Changing depreciation methods is possible, but the change must be clearly disclosed in the reports.

REVIEW QUESTIONS 15.5

- 1 **State** three ways in which the effect of depreciation is the same under both the straight-line and reducing balance methods.
- 2 Compared to the straight-line method, **explain** how the reducing balance method of depreciation will affect Net Profit during each Reporting Period.
- 3 **Explain** how the method of depreciation affects total depreciation over the life of the asset.
- 4 **Explain** the main factor to be considered in selecting a method of depreciation.
- 5 **Identify** the accounting principle that prevents changes of depreciation method between periods.
- 6 Referring to one qualitative characteristic, **explain** why depreciation methods should **not** be changed from one period to the next.

15.6 RECORDING THE CASH SALE OF A NON-CURRENT ASSET

Trading firms earn profit by purchasing stock and then marking it up before selling it. As a result, recording a cash sale of stock in the ledger involves recording the loss of stock at one amount (the **cost price**) and recording the cash received at a different amount (the **selling price**). It is, in fact, two double entries.

A similar principle applies to the sale or disposal of non-current assets; we must record the value of the non-current asset that has been disposed of (its **cost price**) and the revenue that has been earned from its disposal (its **selling price**). The difference between these two amounts will produce a **profit or loss on the disposal** of the asset.

Although non-current assets will frequently be sold, they will sometimes be traded in, so we will refer to the *disposal* rather than the sale of the asset.

Recording the disposal of a non-current asset involves three steps:

- 1 transferring the **carrying value** (the **cost price** of the asset)
- 2 recording the **proceeds from the sale** (the **selling price** of the asset)
- 3 transferring the **profit or loss on disposal** of the asset.

Step 1: transferring the carrying value (the cost price of the asset)

When a non-current asset is disposed of, the firm loses the asset in much the same way that it loses stock or prepaid rent as it is consumed. It is incurring an expense by incurring an outflow, or loss, of an economic benefit, in the form of a decrease in assets (the asset that has been sold). This also decreases owner's equity; however, the business is not losing the Historical Cost of the asset, as it will have already consumed some of the asset's value, via depreciation. This means that the value that is lost when the asset is disposed of is measured by its **carrying value**; that is, its Historical Cost less its accumulated depreciation. This **loss of the asset** (valued at its carrying value) is the first thing that must be recorded when the asset is disposed of.

EXAMPLE

On 31 January 2015, Duke Industries sold some equipment for \$1 100 cash (Rec. 17). The equipment had originally been valued at \$12 000, but accumulated depreciation amounted to \$10 000 when it was sold.

The General Journal entries to transfer the carrying value of the equipment are shown in Figure 15.9:

Figure 15.9 General Journal: transferring the carrying value

General Journal					
Date	Details	General Ledger		Subsidiary Ledger	
		Debit	Credit	Debit	Credit
Jan. 31	Disposal of Equipment	12 000			
	Equipment		12 000		
	Accumulated Depreciation – Equipment	10 000			
	Disposal of Equipment		10 000		

Because the equipment has been sold, it is no longer in the firm's possession or control, so it is removed from the accounts by crediting the **Equipment** account. This entry is recorded at Historical Cost (\$12 000). Simultaneously, the accumulated depreciation that accompanies the equipment is also removed by debiting the **Accumulated Depreciation – Equipment** account (\$10 000). Both amounts are transferred to a new account: **Disposal of Equipment**.

Although this example refers to a *sale* of a non-current asset, the entries would be identical if the asset were traded in. Regardless of how the asset is disposed of, the firm has 'lost' the asset, which must be valued at its carrying value.

The General Journal entry is posted to the General Ledger as shown in Figure 15.10:

Figure 15.10 General Ledger: transferring the carrying value

General Ledger					
Equipment (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1	Balance	12 000	Jan. 31	Disposal of Equipment	12 000

Accumulated Depreciation – Equipment (– A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 31	Disposal of Equipment	10 000	Jan. 31	Balance	10 000

Disposal of Equipment (OE)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 31	Equipment	12 000	Jan. 31	Acc. Dep. – Equipment	10 000

At this stage, the Disposal of Equipment account has a debit balance of \$2 000, representing the carrying value of, and the expense incurred for, the equipment sold.

Step 2: recording the proceeds on disposal (the selling price of the asset)

At the same time as the asset is lost, the firm will also receive some form of revenue from whoever is taking the asset. In the case of a cash sale, the proceeds from the sale of the asset are an inflow of an economic benefit (cash) in the form of an increase in assets (Bank), which increases owner's equity.

The proceeds received from the cash sale of a non-current asset will be recorded in the Cash Receipts Journal as shown in Figure 15.11:

Figure 15.11 Cash Receipts Journal: proceeds on cash sale

Cash Receipts Journal									
Date	Details	Rec. no.	Bank	Discount Expense	Debtors Control	Cost of Sales	Sales	Sundries	GST
Jan. 31	Disposal of Equip.	17	1 100					1 100	
	Totals		42 100	500	14 000	16 000	25 000	1 100	2 500

This amount (\$1 100) would be reported as an Investing inflow in the Cash Flow Statement because a cash inflow was related to the sale of the non-current asset.

The proceeds from the sale would be posted to the General Ledger as shown in Figure 15.12:

STUDY TIP

This makes a total of three types of Investing items to report in the Cash Flow Statement: inflows (cash proceeds on the disposal of a non-current asset), outflows (cash purchase of a non-current asset) and cash paid to sundry creditor.

Figure 15.12 General Ledger: proceeds on cash sale**STUDY TIP**

Remember, the totals of the Cash Receipts Journal are posted to the General Ledger at the end of the month.

General Ledger**Bank (A)**

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 1	Balance	4 000	Jan. 31	Cash Payments	35 000
31	Cash Receipts	42 100			

Disposal of Equipment (OE)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 31	Equipment	12 000	Jan. 31	Acc. Dep. – Equipment	10 000
				Bank	1 100

Whereas transferring the **carrying value** into the Disposal of Equipment account recognises the **expense** related to the disposal, recording the **proceeds** recognises the **revenue** earned from the disposal. With this information, the **profit or loss on the disposal** can be calculated.

Step 3: transferring the profit or loss on disposal

The Disposal of Asset account shows information about both the **revenue earned** from the disposal (the **proceeds from the sale**) and the **expense incurred** by the disposal (the **carrying value of the asset**). However, only the net effect (the overall **profit or loss on disposal**) will be reported in the Income Statement. Thus, the Disposal of Asset account must be closed, and its balance transferred to a separate account called either 'Profit on Disposal of Asset' or 'Loss on Disposal of Asset'.

Transferring a loss on disposal

The example shows the following information relating to the sale of the equipment:

	Revenue: Proceeds on sale	1 100	
Less	Expense: Carrying value	<u>2 000</u>	(Historical Cost \$12 000 – Acc. Dep. \$10 000)
	Profit (Loss) on disposal	(900)	

In this case, the **proceeds from the sale of the equipment** (\$1 100) is less than its **carrying value** (\$2 000), meaning a **loss on disposal of asset** (\$900) has occurred. This loss is also reflected by the Disposal of Equipment account (in Figure 15.12), which has

loss on disposal of asset where the proceeds from the disposal of an asset is less than its carrying value

a debit balance (of \$900) just like an expense account. This confirms that there has been a loss on disposal of equipment.

The General Journal entry to transfer the loss on the disposal of the equipment is shown in Figure 15.13:

Figure 15.13 General Journal: transferring a loss on disposal of asset

General Journal					
Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Jan. 31	Loss on Disposal of Equipment	900			
	Disposal of Equipment		900		
	Disposal of equipment at a loss (Rec. 17)				

Although here the disposal has been shown as three separate components, it is one transaction. All three components (the transfer of the carrying value, the recording of the proceeds on disposal and the transfer of the loss on disposal) form one entry, to record the one transaction. As a consequence, the narration is made only at the end of the General Journal entry.

As a result, the General Ledger accounts would appear as shown in Figure 15.14:

Figure 15.14 General Ledger: transferring a loss on disposal of asset

General Ledger					
Disposal of Equipment (OE)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 31	Equipment	12 000	Jan. 31	Acc. Dep. – Equipment	10 000
				Bank	1 100
				Loss on Disp. of Equip.	900
		12 000			12 000

Loss on Disposal of Equipment (E)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Jan. 31	Disposal of Equipment	900			

The Disposal of Equipment account has been emptied; it now has a zero balance. The Loss on Disposal of Equipment account shows the overall loss incurred on the sale (\$900), which will be closed to the Profit and Loss Summary account at the end of the period, and reported in the Income Statement as an 'Other Expense'.

Transferring a profit on disposal

If the Disposal of Asset account has a credit balance, like a revenue account, it would represent a profit because the proceeds from the sale would be greater than the carrying value. In this case, the Disposal of Asset account would be closed to the Profit on Disposal of Asset account.

EXAMPLE

The accounts of Mallacoota Wines showed the following:

General Ledger
Disposal of Furniture (OE)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Furniture	8 000	Oct. 31	Acc. Dep. – Furniture	6 000
				Bank	2 300

profit on disposal of asset

where the proceeds from the disposal of an asset are greater than its carrying value

This account currently has a credit balance of \$300, representing a profit on disposal of asset, in this case, furniture. This profit would be transferred as shown in Figure 15.15:

Figure 15.15 General Journal: transferring a profit on disposal of asset

General Journal

Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Oct. 31	Disposal of Furniture	300			
	Profit on Disposal of Furniture		300		
	Disposal of furniture at a profit (Rec. 41)				

As a result, the General Ledger accounts would appear as shown in Figure 15.16:

Figure 15.16 General Ledger: transferring a profit on disposal of asset

General Ledger
Disposal of Furniture (OE)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Furniture	8 000	Oct. 31	Acc. Dep. – Furniture	6 000
	Profit on Disp. of Furn.	300		Bank	2 300
		8 300			8 300

Profit on Disposal of Furniture (R)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Oct. 31	Disposal of Furniture	300

As a revenue account, **Profit on Disposal of Furniture** would be closed to the Profit and Loss Summary account at the end of the Reporting Period with other revenues, such as Sales, stock gain and discount revenue. In the Income Statement, it would be reported (with discount revenue) as Other Revenue.

REVIEW QUESTIONS 15.6

- 1 **List** the three steps involved in recording the disposal of a non-current asset.
- 2 **State** one reason why the asset is measured by its carrying value rather than its Historical Cost when it is sold or traded in.
- 3 **Show** the General Journal entries necessary to transfer the carrying value of a non-current asset that has been sold.
- 4 **State** the journal used to record the proceeds from the cash sale of a non-current asset.
- 5 **Explain** how the proceeds from the cash sale of a non-current asset would be reported in the Cash Flow Statement.
- 6 **Define** the terms:
 - loss on disposal of a non-current asset.
 - profit on disposal of a non-current asset.
- 7 **State** what is indicated if the Disposal of Asset account has a:
 - debit balance
 - credit balance.
- 8 **Show** the General Journal entries necessary to close the Disposal of Asset account if it has a:
 - debit balance
 - credit balance.

15.7 RECORDING THE TRADE-IN OF A NON-CURRENT ASSET

In some situations a firm will not sell an asset for cash, but rather use that asset as a **trade-in** on a newer model. This would mean that rather than receiving cash for the sale of the asset, the firm would receive a reduction in the amount payable (to the sundry creditor) for the purchase of a new asset.

trade-in

when a firm uses the proceeds from the sale of a non-current asset to reduce the amount payable for the purchase of a new non-current asset

EXAMPLE

On 30 April 2015, Lexis Midnight Runners purchased a new delivery van worth \$30 000 (plus \$3 000 GST) from IQ Motors (Inv. 65). As part of the purchase, the firm traded in an old delivery van with a carrying value of \$1 200 (cost \$26 000 less accumulated depreciation \$24 800) for \$700.

Figure 15.17 shows how the trade-in of the old van would be recorded in the General Journal:

Figure 15.17 General Journal: trade-in of a non-current asset

General Journal					
Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
April 30	Disposal of Van	26 000			
	Van		26 000		
	Accumulated Dep. – Van	24 800			
	Disposal of Van		24 800		
	Sundry Creditor – IQ Motors	700			
	Disposal of Van		700		
	Loss on Disposal of Van	500			
	Disposal of Van		500		

The entries to transfer the **carrying cost** of the asset and transfer the **loss on the sale** are exactly the same for a trade-in as they would be if the asset had been sold for cash. (To verify this, go back and check Figures 15.10 and 15.13.)

The only difference is that for a trade-in, the **proceeds from the disposal** are recorded as a decrease in a liability (**Sundry Creditor – IQ Motors**) rather than as an increase to an asset (Bank), as would be the case for a cash sale. As a consequence, the proceeds from a trade-in will be recorded in the General Journal (rather than the Cash Receipts Journal).

The trade-in is still revenue as it is a saving of an outflow of economic benefit (as less cash must be paid to the creditor) in the form of a reduction in a liability (Sundry Creditor – IQ Motors), which increases owner's equity. However, there is no cash flow, so the proceeds (the trade-in) are *not* reported in the Cash Flow Statement.

The only remaining step is to record the purchase of the new van, which was covered earlier in this chapter (Section 15.1), and is shown below:

General Journal					
Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
April 30	Van	30 000			
	GST Clearing	3 000			
	Sundry Creditor – IQ Motors		33 000		
	Credit purchase of van (Inv. 65)				

After the trade-in and purchase have been posted to the General Ledger, and the Disposal of Van account has been closed, the accounts would appear as shown in Figure 15.18:

Figure 15.18 General Ledger: trade-in and credit purchase of a non-current asset

General Ledger
Van (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 1	Balance	26 000	April 30	Disposal of Van	26 000
30	Sundry Cred. – IQ Motors	30 000			

Accumulated Depreciation – Van (– A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 30	Disposal of Van	24 800	April 30	Balance	24 800

GST Clearing (A/L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 30	Sundry Cred. – IQ Motors	3 000	April 1	Balance	4 900

Sundry Creditor – IQ Motors (L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 30	Disposal of Van	700	April 30	Van/GST Clearing	33 000

Disposal of Van (OE)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 30	Van	26 000	April 30	Acc. Dep. – Van	24 800
				Sundry Cred. – IQ Motors	700
				Loss on Disposal of Van	500
		26 000			26 000

Loss on Disposal of Van (E)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
April 30	Disposal of Van	500	April 30	Profit and Loss Summary	500
		500			500

The accounts show that the old vehicle is gone, and the new vehicle (valued at **\$30 000**) is recorded in the Van account. The Sundry Creditor – IQ Motors shows a credit balance of \$32 300; that is, **\$30 000** for the new van (plus \$3 000 GST), less the **\$700 trade-in** on the old one. The Disposal of Van account has been closed, and the **\$500 loss** has been transferred to the Loss on Disposal of Van account, which itself has been closed to the Profit and Loss Summary account.

STUDY TIP

If the new asset is purchased using cash, the entry to record the **proceeds on the sale** would debit the asset account directly, rather than the sundry creditor. The credit entry would still be Disposal of Asset.

REVIEW QUESTIONS 15.7

- Show** the General Journal entries necessary to record the trade-in of a non-current asset.
- Explain** how a trade-in is reported in the Cash Flow Statement. (Be careful!)

15.8 REPORTING A PROFIT OR LOSS ON DISPOSAL IN THE INCOME STATEMENT

As you already know, only the overall **profit or loss on the disposal of a non-current asset** is reported in the Income Statement.

Reporting a loss on disposal

If the **proceeds from the sale** are less than the **carrying value** of the asset, then the asset will be sold at a loss. Because a loss on disposal of an asset is an expense, it must be closed to the Profit and Loss Summary account at the end of the Reporting Period along with all the Other Expenses (such as Cost of Sales, Wages and Rent) to help in the determination of Net Profit. (See Chapter 9 for closing revenue and expense accounts.)

In the Income Statement, **Loss on Disposal of Asset** will be reported as an Other Expense, as is shown in Figure 15.19:

Figure 15.19 *Income Statement: loss on disposal of a non-current asset*

LEXIS MIDNIGHT RUNNERS		
Income Statement for quarter ended 30 April 2015		
Revenue	\$	\$
Sales		60 000
Less Cost of Goods Sold		
Cost of Sales	35 000	
Freight In	2 000	37 000
Gross Profit		23 000
Less Stock Loss	300	
Stock Write Down	100	400
Adjusted Gross Profit		22 600
Add Other Revenue		
Discount Revenue		800
		23 400
Less Other Expenses		
Wages	14 050	
Advertising	2 700	
Discount Expense	350	
Loss on Disposal of Van	500	
Rent Expense	4 000	21 600
Net Profit		1 800

Reporting a profit on disposal

Obviously the opposite is true for a profit on disposal of an asset account: it would be closed to the Profit and Loss Summary account with the other revenue accounts, such as Sales and Discount Revenue, and reported in the Income Statement as Other Revenue. This is shown in Figure 15.20:

Figure 15.20 *Income Statement: profit on disposal of a non-current asset*

MALLACOOTA WINES
Income Statement for year ended 31 December 2015

Revenue	\$	\$
Sales		145 000
Less Cost of Goods Sold		
Cost of Sales	39 000	
Customs Duty	2 000	41 000
Gross Profit		104 000
Less Stock Loss		1 000
Adjusted Gross Profit		103 000
Add Other Revenue		
Discount Revenue	500	
Profit on Disposal of Vehicle	300	800
		103 800
Less Other Expenses		
Wages	53 000	
Advertising	11 500	
Discount Expense	1 300	
Rent Expense	16 000	81 800
Net Profit	\$	22 000

REVIEW QUESTIONS 15.8

- 1 Explain** how a loss on the disposal of a non-current asset would be reported in the Income Statement.
- 2 Explain** how a profit on the disposal of a non-current asset would be reported in the Income Statement.

15.9 REASONS FOR PROFIT OR LOSS ON DISPOSAL

Given that depreciation is an attempt to calculate the value of a non-current asset that has been consumed in each period of its life, the carrying value of that asset is also an attempt to gauge the asset's value (to the business) at any point in time. (This is *not* its market value.) And because the **proceeds** are based on the sale document (and therefore cannot be 'incorrect'), a profit or loss on the disposal of the asset indicates that this carrying value (and the depreciation that lead to its carrying value) was in some way incorrect.

under-depreciation

occurs when insufficient depreciation has been allocated over the life of the asset, so that the carrying value of the asset is overstated

STUDY TIP

'Poor estimates' is a bad explanation, as it does not distinguish between over-depreciation and under-depreciation.

over-depreciation

occurs when excess depreciation has been allocated over the life of the asset, so that the carrying value of the asset is understated

Reasons for a loss on disposal

A loss on the disposal of a non-current asset occurs when the **carrying value** of the asset is *greater* than the **proceeds from its sale** (its resale value). That is, we had valued the asset at *more* than it was really worth.

Under-depreciation

If the carrying value of the asset is overstated, it is because it has been **under-depreciated**; we have not written off enough depreciation over the asset's life. In terms of the calculations, this may be because:

- the estimated residual value was too high (or overstated) and/or
- the estimated useful life was too high (overstated).

Both these factors would be reflected in a depreciation rate that was too low.

There are a variety of reasons why the residual value and/or useful life of the asset may be overstated. For example:

- The original estimates did not anticipate that the asset would be *damaged*. This would automatically reduce its resale (residual) value, and could also decrease its useful life below what was originally anticipated.
- The original estimates did not anticipate that the asset would be *outdated*, or *superseded* by a newer, technologically superior model. This would also reduce its resale value.

Overstating the residual value or useful life would mean not enough depreciation would have been allocated over the life of the asset. As a result, the **carrying value** of the asset would be *greater* than its **resale value**.

Thus, a loss on disposal occurs when the asset's **carrying value** is greater than the **proceeds from its disposal**. This could be caused by under-depreciation, where the residual value or useful life was overstated (perhaps because the asset was damaged, superseded by a newer model or not in demand).

Reasons for a profit on disposal

In contrast to a loss, a profit on the disposal of a non-current asset occurs when the **carrying value** of the asset is *less* than the **proceeds from its sale**. This means the asset was valued at *less* than it was worth.

Over-depreciation

If the carrying value of the asset is understated, it is because it has been **over-depreciated**; we have written off too much depreciation over the asset's life. In terms of the calculations, this may be because:

- the estimated residual value was too low (or understated) and/or
- the estimated useful life was too low (understated).

Both these factors would be reflected in a depreciation rate that was too high.

The actual residual value and/or useful life of the asset may be understated because:

- The original estimates did not anticipate that the asset would be in *good condition*. This would increase its resale (residual) value, and could also increase its useful life.
- The original estimates did not anticipate that the asset would be *in high demand*. This may be because it is *rare*, and would also increase its resale value.

Understating the residual value or useful life would mean that too much depreciation would have been allocated over the life of the asset. As a result, the **carrying value** of the asset would be *less* than its **resale value**.

Thus, a profit on disposal occurs when the asset's **carrying value** is less than the **proceeds from its disposal**. This could be caused by over-depreciation, where the residual value or useful life was understated (perhaps because the asset was in good condition, rare or in high demand).

REVIEW QUESTIONS 15.9

- 1 **Define** the term 'under-depreciation'.
- 2 **State** two causes of under-depreciation.
- 3 **State** two reasons why the residual value may be overstated.
- 4 **Explain** how under-depreciation may lead to a loss on the disposal of a non-current asset.
- 5 **Define** the term 'over-depreciation'.
- 6 **State** two causes of over-depreciation.
- 7 **State** two reasons why the residual value may be understated.
- 8 **Explain** how over-depreciation may lead to a profit on the disposal of a non-current asset.

STUDY TIP

The reasons for a profit are the opposite of the reasons for a loss: learn one set of reasons and simply reverse them for the other result.

WHERE HAVE WE BEEN?

- A sundry creditor account is used to record amounts owed for purchases other than stock.
- The cost of an asset includes all costs incurred in order to bring the asset into a location and condition ready for use that will provide a benefit for the life of the asset.
- The reducing balance method of depreciation assumes that the asset contributes more to revenue at the start of its life, and less as it ages.
- The reducing balance method calculates depreciation expense as a percentage of the asset's carrying value.
- Over the life of the asset, the straight-line and reducing balance methods will allocate the same total depreciation expense.
- Consistency demands that depreciation methods are not changed from period to period, ensuring Comparability in the reports.
- Recording the disposal of a non-current asset involves three steps:
 - transferring the carrying value of the asset
 - recording the proceeds from the disposal
 - transferring the profit or loss on disposal.
- The cash received from the sale of a non-current asset is an Investing cash inflow, while a payment to a sundry creditor is an Investing outflow.
- Only the overall profit or loss on the disposal of a non-current asset is reported in the Income Statement, as Other Revenue (for a profit) or Other Expense (for a loss).
- A loss on the disposal of a non-current asset occurs when the carrying value of the asset is *more* than the proceeds from its sale.
- A profit on the disposal of a non-current asset occurs when the carrying value of the asset is *less* than the proceeds from its sale.

EXERCISES

EXERCISE 15.1

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CREDIT PURCHASE OF A NON-CURRENT ASSET

On 1 May 2015, Showcase World had \$14 000 worth of display cabinets. On 14 May 2015, it purchased more display cabinets at a cost of \$6 600 (including \$600 GST) from Carl's Cabinets (Inv. 64). On 23 May 2015, Showcase World paid the amount owing to Carl's Cabinets (Ch. 45).

Required


- Explain** why Invoice 64 would **not** be recorded in the Purchases Journal of Showcase World.
- Show** the General Journal entries necessary to record the purchase of the display cabinets.
- Record** Cheque 45 in the Cash Payments Journal of Showcase World.
- Show** how the Display Cabinets and Sundry Creditor – Carl's Cabinets accounts would appear after all journals have been posted to the General Ledger.

EXERCISE 15.2

 page 321

CREDIT PURCHASE OF A NON-CURRENT ASSET

On 30 April 2015, Neil Downe purchased a new computer for his business, Knibs and Pens. The document relating to the purchase is shown below:

		CRASH COMPUTERS ABN: 34 354 365 887 Wells Rd Frankston VIC 3199	Invoice: X.24 TAX INVOICE
Debit to:		Knibs and Pens (ABN: 56 575 334 102) Elizabeth St, Dandenong VIC 3175	
Date	Details	Total	
April 30	Computer System and Software	2 400	
	Installation	250	
	Subtotal	2 650	
	GST	265	
	Total invoice price	\$2 915	

Knibs and Pens paid Crash Computers in the first week of May 2015 (Ch. 196).

Required


- Show** the General Journal entries necessary to record this purchase.
- Referring to your answer to part 'a', **explain** your treatment of installation.
- Show** how the Computer account would appear after the General Journal has been posted to the General Ledger of Knibs and Pens as at 30 April 2015.
- Show** how the amount owing to Crash Computers would be reported in the Balance Sheet of Knibs and Pens as at 30 April 2015.
- Show** how the payment to Crash Computers would be reported in the Cash Flow Statement of Knibs and Pens for May 2015.

**EXERCISE 15.3**

page 322

CREDIT PURCHASE OF A NON-CURRENT ASSET

On 1 April 2015, Matt's Mowers purchased a new photocopier. The document relating to the purchase is shown below:

 Phil's Photocopiers Main St Mornington VIC 3931 Invoice: 36 ABN: 35 444 000 121		
Debit to: Matt's Mowers (ABN: 65 555 760 012) Ferntree Gully VIC 3156		
Date	Details	Total
1/4/15	Photocopier T – 1000	21 000
	Fitting of card-identification system	1 500
	Technical assistance (12-month period)	1 200
	Subtotal	23 700
	GST	2 370
	Total invoice price	\$26 070

Required

- Define** the term 'cost' as it applies to non-current assets.
- Show** the General Journal entries necessary to record Invoice 36 in the accounts of Matt's Mowers.
- Show** how the cost of technical assistance would be reported in the Balance Sheet of Matt's Mowers as at 30 April 2015.
- Explain** the difference between Creditors Control and a sundry creditor.

EXERCISE 15.4

page 323

DEPRECIATION BASICS

On 30 September 2015, Kristine's Kites purchased new shelving for \$12 000 and a new sewing machine for \$500 from Trojan Products (Inv. 3009). GST charged on the invoice amounted to \$1 250. Kristine has not yet selected a depreciation method.

Required

- Show** the General Journal entries to record the purchase on 30 September 2015.
- Referring to one accounting principle, **explain** why it is necessary to depreciate non-current assets.
- Explain** why the straight-line method should be used to depreciate the shelving.
- Explain** why the reducing balance method should be used to depreciate the sewing machine.
- Show** the General Journal entries to record depreciation expense. (Amounts and narrations are **not** required.)

EXERCISE 15.5

REDUCING BALANCE DEPRECIATION

 page 324

On 1 July 2014, Benanee Rubber purchased a new delivery van for \$32 000 plus GST. The van is to be depreciated at 20% per annum using the reducing balance method (Memo 12).

Required

- State** the assumption that underlies the reducing balance method of depreciation in relation to how assets contribute to revenue.
- Calculate** depreciation of the van for the year ended 30 June 2015.
- Show** the General Journal entries to record depreciation of the van for the year ended 30 June 2015.
- Show** how the van would appear in the Balance Sheet of Benanee Rubber as at 30 June 2015.
- Calculate** the depreciation of the van for the year ended 30 June 2016.

EXERCISE 15.6

REDUCING BALANCE DEPRECIATION

 page 325

As at 30 June 2015, the Balance Sheet of Heavenly Designs showed the following non-current assets:

	\$	\$
Computers	10 000	
Less Accumulated Depreciation	<u>1 800</u>	8 200
Shop Fittings	40 000	
Less Accumulated Depreciation	<u>13 104</u>	26 896

Both assets are depreciated at 18% per annum using the reducing balance method.

Required

- Calculate** depreciation of the computers for the year ended 30 June 2016.
- Show** the General Journal entries to record depreciation of the computers for the year ended 30 June 2016. (Narration is **not** required).
- Show** how the Computers would be reported in the Balance Sheet of Heavenly Designs as at 30 June 2016.
- Explain** one reason why the owner should change the method of depreciation used for the shop fittings.
- Referring to one qualitative characteristic, **explain** one reason why the owner should **not** change the method of depreciation used for the shop fittings.
- Given that they were purchased on 1 July, **calculate** the year in which the shop fittings were purchased.



EXERCISE 15.7
COMPARING DEPRECIATION METHODS

 page 327

On 1 July 2014, Babyland purchased shop equipment for \$13 200 including GST. The owner argues that the best way to uphold the accounting principle of Consistency is to depreciate the shop equipment at 10% per annum using the straight-line method. The accountant has argued that the shop equipment should be depreciated at 15% using the reducing balance method.

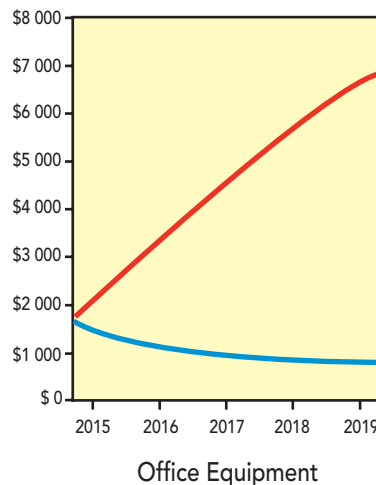
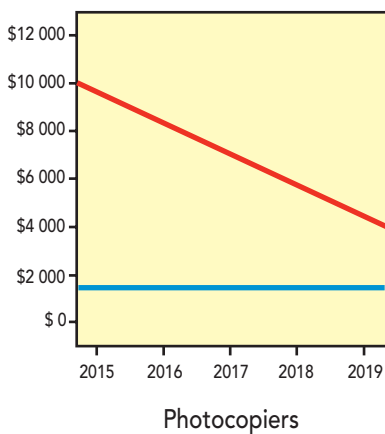
Required

- a Suggest** one reason why the owner might (incorrectly) argue that the straight-line method provides Consistency.
- b** Referring to your answer to part 'a', **state** one reason why the owner is incorrect.
- c Identify** one extra piece of information you would require before agreeing with the accountant. **Justify** your answer.
- d Calculate** depreciation of shop equipment for the year ended 30 June 2015 using the straight-line method.
- e Calculate** depreciation of shop equipment for the year ended 30 June 2015 using the reducing balance method.
- f Explain** how the choice of depreciation method will affect Net Profit for the year ended 30 June 2015.
- g Calculate** the year in which the depreciation expense under the reducing balance method will be lower than depreciation expense under the straight-line method.

EXERCISE 15.8
GRAPHING DEPRECIATION

 page 329

Justinian Printing has provided the following graphs relating to depreciation of its non-current assets:



— Depreciation expense
— Line A

— Depreciation expense
— Line B

Required

- a **Identify** the depreciation method used for the:
 - Photocopiers
 - Office Equipment
- b **Identify** the lines labelled 'Line A' and 'Line B'.
- c **Discuss** whether the owner should change the method used to calculate the depreciation of the photocopiers.
- d **Explain** the effect on the carrying value of the office equipment at the end of its useful life if the owner had used the other depreciation method.

EXERCISE 15.9
 page 330
CASH SALE OF A NON-CURRENT ASSET

On 1 August 2015, Party Pots sold a van for \$3 000 cash (Rec. 31). The van had been purchased for \$24 000 and already depreciated by \$19 000 at the time of sale.

Required

- a **Record** Receipt 31 in the Cash Receipts Journal of Party Pots.
- b **Show** the General Journal entries necessary to record the disposal of the van and transfer the profit or loss on disposal.
- c **Show** how the Van, Accumulated Depreciation of Van, Disposal of Van and Profit or Loss on Disposal of Van accounts would appear after the journals were posted to the General Ledger of Party Pots.
- d **Show** how the proceeds from the sale would be reported in the Cash Flow Statement of Party Pots for August 2015.

EXERCISE 15.10
 page 332
CASH SALE OF A NON-CURRENT ASSET

As at 31 December 2014, the Balance Sheet of Triffic Toys showed the following:

TRIFFIC TOYS		
Balance Sheet as at 31 December 2014		
Non-Current Assets	\$	\$
Fittings	36 000	
Less Accumulated Depreciation	<u>32 800</u>	3 200

The fittings are depreciated using the straight-line method at 10% per annum. On 31 March 2015 the fittings were sold for \$2 700 cash (Rec. 96).

Required

- a **Calculate** carrying value of the fittings as at 31 March 2015.
- b **Record** the proceeds from the disposal of the fittings in the Cash Receipts Journal of Triffic Toys.
- c **Show** the General Journal entries necessary to record the disposal of the fittings.
- d **Show** how the Fittings, Accumulated Depreciation of Fittings, Disposal of Fittings and Profit or Loss on Disposal of Fittings accounts would appear after the sale was posted to the General Ledger of Triffic Toys.
- e **Suggest** two reasons for the profit or loss on the disposal of the fittings.
- f **Show** how the profit or loss on the disposal of the fittings would be reported in the Income Statement of Triffic Toys for March 2015.

**EXERCISE 15.11**

page 334

CASH SALE OF A NON-CURRENT ASSET

An extract from the General Ledger of Vicki's Vinyls as at 31 October 2015 showed the following:

Disposal of Furniture

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Oct. 31	Furniture	8 000	Oct. 31	Acc. Dep. – Furniture	5 000
				Bank	1 900

The sale of furniture occurred on 16 October 2015, and was verified by Rec. 33.

Required

- a Explain** how the proceeds from the disposal of furniture would be reported in the Cash Flow Statement of Vicki's Vinyls for October 2015.
- b Calculate** the profit or loss made on the disposal of furniture.
- c Explain** one reason for the profit or loss on the disposal of furniture.
- d Show** how the profit or loss on the disposal of furniture would be reported in the Income Statement of Vicki's Vinyls for October 2015.
- e Show** how the disposal of furniture would have been recorded in the journals of Vicki's Vinyls.

EXERCISE 15.12

page 336

TRADE-IN OF A NON-CURRENT ASSET

On 1 May 2015, a van purchased for \$30 000 by Swing Seats and already depreciated by \$20 000 was traded in for \$7 000 on a new van, bought on credit for \$40 000 (plus GST) from Dodge Motors (Inv. 19).

Required

- a Define** the term 'trade-in'.
- b Show** the General Journal entries necessary to record the disposal of the old van and the purchase of the new van.
- c Show** how the Van, Accumulated Depreciation of Van, Disposal of Van, Profit or Loss on Disposal of Van and Sundry Creditor – Dodge Motors accounts would appear after the disposal was posted to the General Ledger of Swing Seats.
- d Define** the term 'under-depreciation'.
- e State** two causes of under-depreciation.

EXERCISE 15.13
 page 338
TRADE-IN OF A NON-CURRENT ASSET

Quilts Inc. recently traded in its cash register and purchased a much newer version. The old cash register was purchased for \$4 400 including GST, but had been depreciated by \$3 100 at the time of trade-in. The invoice for the transaction is shown below:

Date		Details	Qty	Unit price	Total
1 June 15		Electronic cash register	1	6 000	6 000
		GST			600
		Invoice price			6 600
		less Trade in			500
		Balance owing		\$	6 100

On 7 June 2015, Quilts Inc. paid Cash Controllers the balance owing.

Required

- Show** the General Journal entries necessary to record the disposal of the old cash register and the purchase of the new cash register.
- Show** how the Cash Register, Disposal of Cash Register and Sundry Creditor – Cash Controllers accounts would appear after the disposal was posted to the General Ledger of Quilts Inc.
- Explain** how the value of the trade-in should be reported in the Income Statement for Quilts Inc. for June 2015.
- Show** how the payment to Cash Controllers on 7 June 2015 would be reported in the Cash Flow Statement of Quilts Inc. for June 2015.

**EXERCISE 15.14**

page 340

**DISPOSAL OF A NON-CURRENT ASSET
AND FINANCIAL REPORTS**

Kyabram Kites has provided the following Pre-adjustment Trial Balance as at 30 June 2015:

KYABRAM KITES
Pre-adjustment Trial Balance as at 30 June 2015

Account	Debit	Credit
Accumulated Depreciation – Fittings		24 000
Advertising	1 000	
Bank		390
Capital – Darling		34 720
Cost of Sales	14 820	
Creditors Control		8 600
Debtors Control	12 750	
Discount Expense	280	
Discount Revenue		130
Drawings	3 200	
Fittings	60 000	
GST Clearing		1 060
Loan – Northern Bank (repayable \$500 per month)		24 000
Prepaid Rent	1 800	
Sales		33 100
Stock Control	26 670	
Stock Write-down	230	
Wages	5 250	
Totals	\$126 000	\$126 000

Additional information:

- The fittings are to be depreciated at 10% per annum using the reducing balance method.
- On 30 June 2015, some shop fittings were traded in for \$1 200 on new shop fittings, which cost \$9 000 (plus \$900 GST) from Fits Well. The old shop fittings had been purchased for \$5 000, but had a carrying value of \$2 000.
- A physical stocktake on 30 June 2015 showed a Stock Loss of \$170.
- As at 30 June 2015, \$140 interest expense was accrued, and prepaid rent was \$1 200.
- Reports are prepared monthly.

Required

- a **Show** the General Journal entries necessary to record the additional information. (Narrations are **not** required.)
- * b **Prepare** a Post-adjustment Trial Balance for Kyabram Kites as at 30 June 2015.
- c **Show** the General Journal entries necessary to close the expense accounts.
- * d **Prepare** an Income Statement for Kyabram Kites for the year ended 30 June 2015.
- e **Suggest** two actions Kyabram Kites could take to improve Adjusted Gross Profit without changing its mark-up.
- * f **Prepare** a classified Balance Sheet for Kyabram Kites as at 30 June 2015.

Where are we headed?

After completing this chapter, you should be able to:

- **define** 'revenue', 'expenses' and 'profit'
- **explain** how the Reporting Period principle and qualitative characteristic of Relevance affect the calculation of profit
- **explain** the purpose of a balance day adjustment
- **identify** and **record** prepaid revenue in the Cash Receipts Journal and General Ledger
- **record** balance day adjustments in the General Journal and General Ledger for prepaid and accrued revenues
- **state** the effect of balance day adjustments on the accounting equation
- **identify** and **record** the receipt of an accrued revenue in a subsequent period
- **distinguish** between accrued revenue and a sundry debtor
- **report** prepaid and accrued revenues in the Balance Sheet.

CHAPTER 16

BALANCE DAY ADJUSTMENTS: REVENUES

KEY TERMS

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

- prepaid revenue
- accrued revenue.

16.1 THE NEED FOR BALANCE DAY ADJUSTMENTS

Chapter 10 pointed out that when we speak of determining profit, we are actually comparing the **revenue earned** against the **expenses incurred** in the current Reporting Period. Balance day adjustments are made to ensure that revenue accounts show revenues earned and expense accounts show expenses incurred in a particular Reporting Period, so an accurate profit can be calculated.

Types of balance day adjustments

So far we have covered balance day adjustments that ensure that **expense accounts** show the amounts **incurred/consumed**:

- stock losses (Chapter 8)
- prepaid expenses and accrued expenses (Chapter 10)
- depreciation (Chapter 11).

To this point, the only revenue we have covered is a stock gain. In this chapter, we will cover two other balance day adjustments to ensure that **revenue** accounts show the amounts **earned**:

- prepaid revenues
- accrued revenues.

Remember, revenue is defined as an inflow of economic benefits (or saving in outflows), in the form of an increase in assets or a reduction in liabilities that leads to an increase in owner's equity. The definition does not require that cash be received for revenue to be recognised; the receipt of cash may or may not be involved. For example, a credit sale increases debtors rather than cash. Indeed, many transactions are not revenues even when cash is received. The key is that some type of *economic benefit* has been received (either by assets increasing or liabilities decreasing), and that owner's equity has increased as a consequence.

REVIEW QUESTIONS 16.1

- 1 Explain the purpose of a balance day adjustment.
- 2 Define the term 'revenue'.
- 3 State three non-cash revenue items.

16.2 PREPAID REVENUES

Although perhaps less frequent than a prepaid expense, it is possible for a firm to receive revenue in advance of supplying the goods. This would be the case if a firm accepted subscriptions, such as to a magazine; rented out extra space in its warehouse; offered lay-by facilities; or accepted cash as a deposit to secure a sale. (Section 16.3 covers the last possibility.)

In cases such as these, the firm would have received the cash, but because it has not supplied any goods (or services) to the customer, it has not earned any revenue. This means the receipt is **prepaid revenue**, or revenue received in advance.

Where revenue is prepaid, the good/service is owed to the customer, so the firm has an obligation to provide them sometime in the future. Thus, prepaid revenue is not revenue at all, but rather a *current liability*: a present obligation that is expected to result in an outflow of economic benefits when the good/service is supplied sometime in the next 12 months.

prepaid revenue
a revenue received but
yet to be earned



Although perhaps less frequent than a prepaid expense, it is possible for a firm to receive revenue in advance of supplying the goods; for example, a newspaper subscription

Recording revenues received in advance

When revenue is received in advance (or prepaid) it must be recorded as a current liability in the journals and ledger accounts.

The Bag Emporium owns a warehouse, and rents out some office space to a small courier business. On 1 August 2015, the Bag Emporium received \$420 rent (plus \$42 GST) for use of the office space for the next six months. Reports are prepared monthly.

EXAMPLE

Of the \$462 cash received from the courier company, \$42 is GST that is now owed to the ATO. What of the remaining \$420?

The key here is that the cash receipt covers the next 6 months: it is received in advance of providing the use of the office space. As at 1 August 2015, none of the office space has been provided to the courier business, therefore no revenue has been earned. In fact, The Bag Emporium owes to the courier company use of the office space (for six months), so this cash receipt is in fact a liability – Prepaid Rent Revenue.

STUDY TIP

If GST is identified, it can be recorded in the Cash Receipts Journal.

This receipt would be recorded in the Cash Receipts Journal as shown in Figure 16.1.

Figure 16.1 Cash Receipts Journal: prepaid revenue

CASH RECEIPTS JOURNAL									
Date	Details	Rec. no.	Bank	Disc. Exp.	Debtors Control	Cost of Sales	Sales	Sundries	GST
Aug. 1	Prepaid Rent Rev.	18	462					420	42
	Totals		33 020	300	12 000	12 500	19 000	420	1 942

After posting, the General Ledger would appear as shown in Figure 16.2.

Figure 16.2 General Ledger: prepaid revenue

GENERAL LEDGER					
Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 1	Balance	5 000			
Dec. 31	Cash Receipts	33 020			

Prepaid Rent Revenue (L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Aug. 31	Bank	420

GST Clearing (A/L)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Aug. 1	Balance	700
			31	Bank	1 942

This entry increases **Bank**, and increases two liabilities: **Prepaid Rent Revenue** and **GST Clearing**. At this point, there is no revenue recorded in the General Ledger; no rent has been provided, so no rent revenue has been earned.

Effect on the accounting equation

As a result of the receipt of prepaid revenue:

	Increase/Decrease/No effect	Amount \$
Assets	Increase (Bank)	462
Liabilities	Increase (Prepaid Rent Revenue \$420 , GST Clearing \$42)	462
Owner's Equity	No effect	

Note that there is no effect on owner's equity, so the cash received cannot be revenue.

Adjusting for prepaid revenues earned

Prepaid revenues are recorded as current liabilities because when the cash is received, none of the amount has been earned; it is a present obligation to provide the good or service. If by balance day the good/service has been provided to the customer, the firm will have fulfilled its obligation; the liability has been extinguished, so the revenue



has been **earned**. This is a good example of a revenue in the form of a decrease in a liability (prepaid revenue) rather than the usual increase in assets created by a cash or credit sale.

It is necessary to adjust the ledger accounts so that:

- the **amount earned** in the current Reporting Period is transferred to a **revenue** account
- the Prepaid Revenue account only shows the amount remaining; that is, unearned or to be earned in a future Reporting Period.

In the example, the **\$420 received** on 1 August 2015 related to the next six months, so Rent Revenue for one month would be calculated as:

$$\frac{\$420 \text{ Prepaid Rent Revenue}}{6 \text{ months}} = \$70 \text{ Rent per month}$$

This revenue is only **earned** as the rent is provided each month. By 31 August 2015, rent would have been provided for one month (August) meaning The Bag Emporium would have **earned** one month's worth, or **Rent Revenue** of **\$70** (Memo 12). As a result, this amount is no longer owed to the courier company.

The balance day adjustment to record the prepaid rent revenue earned is shown in the General Journal entry in Figure 16.3.

Figure 16.3 General Journal: BDA for prepaid revenue earned

GENERAL JOURNAL

Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Aug. 31	Prepaid Rent Revenue	70			
	Rent Revenue		70		
	Adjusting entry to record one month's rent revenue earned (Memo 12)				

This entry credits the **Rent Revenue** account to recognise the revenue earned in the current Reporting Period, while the **Prepaid Rent Revenue** account is debited to reduce the current liability because the obligation has been fulfilled. After posting, the General Ledger would appear as is shown in Figure 16.4.

Figure 16.4 General Ledger: BDA for prepaid revenue earned

GENERAL LEDGER

Prepaid Rent Revenue (L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 31	Rent Revenue	70	Aug. 31	Bank	420
				(350)	

Rent Revenue (R)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			Aug. 31	Prepaid Rent Revenue	70

The balance of the **Rent Revenue** account (\$70) represents the **revenue earned** in the current Reporting Period, while the balance remaining in the Prepaid Rent Revenue account (\$350) represents the revenue that has not yet been earned, and will be earned in a future Reporting Period.

Effect on the accounting equation

As a result of the adjustment for prepaid revenue earned:

	Increase/Decrease/No effect	Amount \$
Assets	No effect	
Liabilities	Decrease (Prepaid Rent Revenue)	70
Owner's Equity	Increase (Rent Revenue increases Net Profit)	70

As a consequence of the balance day adjustment, a liability becomes a revenue, decreasing liabilities and increasing owner's equity. Assets do not change.

Closing the ledger

The adjusted figure in the revenue account can now be closed to the Profit and Loss Summary account. Remember, all revenue accounts are closed in one General Journal entry, with each revenue account debited to reduce its balance to zero, and one credit to the Profit and Loss Summary account. After it has been closed, the Rent Revenue account in our example would show:

Rent Revenue (R)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 31	P&L Summary	70	Aug. 31	Prepaid Rent Revenue	70

As a current liability, the Prepaid Rent Revenue account would be balanced, and the amount still owing carried forward to the next period:

Prepaid Rent Revenue (L)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
Aug. 31	Rent Revenue	70	Aug. 31	Bank	420
	Balance	350			
		420			420
			Sept. 1	Balance	350

REVIEW QUESTIONS 16.2

- 1 Define the term 'prepaid revenue'.
- 2 Explain how prepaid revenue is reported in the Balance Sheet.
- 3 State the effect of a receipt of prepaid revenue on the accounting equation.
- 4 Show the General Journal entries necessary to record the balance day adjustment for prepaid revenue earned.
- 5 State the effect of the balance day adjustment for prepaid revenue earned on the accounting equation.

16.3 PREPAID SALES REVENUE: SALES OF STOCK INVOLVING A DEPOSIT

Section 16.2 described the recording of prepaid revenue, where cash is received in advance for revenue that is yet to be earned. Once the revenue is earned, entries are necessary to record the revenue earned, and the reduction in the liability owed to the customer.

This applies to all prepaid revenues, but prepaid Sales Revenue is a particular type of prepaid revenue, because it includes the provision of stock. Prepaid Sales might occur when a new product (such as a DVD or electronic game) is released, and customers pay in advance to ensure they are among the first to own the item. It might also occur when a customer pays a deposit on an item of stock in order to secure the sale. When this stock is provided, the entries are required to record the revenue earned and the reduction of the liability, but also the stock leaving the business.

Wollard Prints sells a signed and framed poster of the Australian soccer team for \$1 200 (plus \$120 GST). On 14 September 2015, Wollard Prints received a deposit of \$500 from B. Hogan for the sale of one poster (Rec. 35). On 23 September 2015, Hogan collected the poster, paying the balance in cash (Rec. 39). The poster has a cost price of \$650.

EXAMPLE

Recording the deposit

In common with any prepaid sale, the deposit received on 14 September 2015 increases cash in the Bank account, and creates a liability (in this case, Prepaid Sales revenue). But, because this is simply a deposit to guarantee the sale – and not a receipt of the full amount of cash for the sale – the transaction does not identify any GST received. As a result, GST need not be recorded in the Cash Receipts Journal, as is shown in Figure 16.5.

Figure 16.5 Cash Receipts Journal: deposit (no GST)

Cash Receipts Journal

Date	Details	Rec. no.	Bank	Disc. Exp.	Debtors Control	Cost of Sales	Sales	Sundries	GST
Sept. 14	Prepaid Sales	35	500					500	

Recording a cash sale involving a deposit

Once the customer (Hogan) collects the poster on 23 September 2015, the Sales Revenue has been earned, and the liability met. Figure 16.6 shows the General Journal entry to record this information.

STUDY TIP

Deposits do not include GST.

Figure 16.6 General Journal: deposit earned

GENERAL JOURNAL					
Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Sept. 23	Prepaid Sales	500			
	Sales		500		
	Prepaid sales revenue earned (Rec. 39)				

This is the same as any entry to record prepaid revenue earned, and therefore the same as the entries shown in Figure 16.3. The entry debits **Prepaid Sales** revenue to reduce the amount owed to the customer, and credits **Sales** revenue (both by \$500) to record the **revenue earned** when the good (the poster) is provided to the customer (Hogan).

However, the selling price of the posters is not just this \$500: the selling price was actually \$1 200. Thus, when the poster is sold on 23 September 2015, we must also record an extra \$700 of **Sales** revenue. This amount, along with the full amount of **GST** on the sale (\$120) – a total of \$820 – will be received in cash on 23 September 2015, and so must be recorded in the Cash Receipts Journal.

We must also record that as the poster was collected, **\$650** worth **Cost of Sales** has been incurred, and **Stock Control** has decreased (by the same amount).

The Cash Receipts Journal entry to record this extra sales information is shown in Figure 16.7.

Figure 16.7 Cash Receipts Journal: cash sale (involving a deposit)

CASH RECEIPTS JOURNAL									
Date	Details	Rec. No.	Bank	Disc. Exp.	Debtors Control	Cost of Sales	Sales	Sundries	GST
Sept. 23	Sales	39	820			650	700	120	

This Cash Receipts Journal entry looks like a standard, ordinary cash sale (which, for the most part, it is). However, the **GST** amount (\$120) is *not* 10% of the amount recorded in the Sales column (\$700). Instead, the GST is 10% of the **total Sales** figure of \$1 200, where:

- \$500 has been recorded in the General Journal (as shown in Figure 16.6) and
- \$700 has been recorded in the Cash Receipts Journal (Figure 16.7).

These two entries – the General Journal entry (in Figure 16.6) and the Cash Receipts Journal (in Figure 16.7) – are necessary to record the sale on 23 September 2015.

Effect on the accounting equation

As a result of recording the cash sale involving a deposit:

	Increase/Decrease/No effect	Amount \$
Assets	Increase (increase Bank \$820, decrease Stock Control \$650)	170
Liabilities	Decrease (decrease Prepaid Sales Revenue \$500; increase GST Clearing \$120)	380
Owner's Equity	Increase (Sales Revenue \$1 200* less Cost of Sales \$650 = Net Profit)	550

* Sales Revenue = \$500 prepaid (GJ) + \$700 Cash Sales (CRJ)

STUDY TIP

Where a deposit is involved, GST is recognised at the point of sale.

STUDY TIP

As a double-check, add together any amounts labelled 'Sales': they should equal the selling price of the stock (excluding GST).

Recording a credit sale involving a deposit

In the previous example, the customer (Hogan) paid cash for the balance remaining when collecting the goods on 23 September 2015. This was verified by Receipt 39. As a consequence, the \$820 cash received was recorded in the Cash Receipts Journal as was the \$700 of 'extra' Sales Revenue, the \$120 GST and the **Cost of Sales of \$650**.

In the event that the sale is made *on credit*, the same information must be recorded; the only differences being that it would be verified by an *invoice* rather than by a cash receipt, and recorded in the Sales Journal rather than the Cash Receipts Journal. Figure 16.8 shows how this would be recorded in the General Journal and Sales Journal.

Figure 16.8 Journals: credit sale (involving a deposit)

GENERAL JOURNAL

Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
Sept. 23	Prepaid Sales	500			
	Sales		500		
	Prepaid Sales Revenue earned (Inv. 12)				

SALES JOURNAL

Date	Debtor	Invoice number	Cost of Sales	Sales	GST	Debtors Control
Sept. 23	B. Hogan	12	650	700	120	820

This General Journal entry is identical to that used if the remainder is paid in cash (in Figure 16.6). And the information recorded in this Sales Journal is the same as that recorded in the Cash Receipts Journal (in Figure 16.7); the only difference being that for a credit sale it is Debtors Control (and in the subsidiary ledger, Debtor – Hogan), not Bank, that increases by \$820. In both cases, the total Sales revenue earned amounts to \$1 200 (the selling price of the poster), the **Cost of Sales** is \$650, the Prepaid Sales revenue liability decreases and GST of \$120 is recognised. As a consequence, the effect on the accounting equation is identical to that of a cash sale.

Posting to the General Ledger

Because part of a sale involving a deposit is recorded in the General Journal (the earning of the deposit), this must be posted to the General Ledger separately. (See Figure 16.4 for a reminder.) The 'extra' sale information is recorded in the Cash Receipts Journal (for a cash sale) or Sales Journal (for a credit sale) as with any other sale, so this information is simply posted to the General Ledger at the end of the month as part of the column totals from the Cash Receipts Journal/Sales Journal.

STUDY TIP

Remember, add together any amounts labelled 'Sales' to check that they equal the selling price of the stock (excluding GST).

REVIEW QUESTIONS 16.3

- 1 **Identify** two situations that may lead to the receipt of a deposit.
- 2 **State** the effect on the accounting equation of the receipt of a deposit.
- 3 **Show** the debit and credit entries required to record a cash sale involving a deposit.
- 4 **State** the effect on the accounting equation of a sale involving a deposit.
- 5 **Identify** three differences between recording a cash sale involving a deposit and recording a credit sale involving a deposit.

16.4 ACCRUED REVENUE

Prepaid revenues are received before they are earned, but in some cases revenues will be received *after* they are earned. For example, interest on a term deposit may have been *earned*, but is not due to be received until next month. Other items such as royalties and commissions may only be received after they have been earned. Because this amount has been **earned** in the current Reporting Period, it must be recognised as revenue. The amount owing should also be recorded as a *current asset*, as some time in the future, the cash will be received. The amount owed to us for revenue we have already earned is called **accrued revenue**.

accrued revenue

a revenue that has been earned but not yet received

Accrued revenue versus debtors

Accrued revenue and debtors are similar in that they are current assets. In both cases the revenue is earned before the cash is received, so they represent a resource controlled by the entity (the debt owed to the business), which will bring a future economic benefit in the next 12 months (when the cash is received). However, they are different in a subtle but important way. If the customer has the *goods and the invoice*, then a credit sale has occurred, and a debtor should be recognised. However, if the revenue relates to a transaction other than Sales, and the customer has *not been sent the invoice*, then accrued revenue has been earned. As such, accrued revenue will be verified by a memo rather than an invoice.

Adjusting for accrued revenues

Prior to making any balance day adjustments, the revenue accounts will only show the amounts received.

EXAMPLE

On 1 August 2014, Kilvington Kites invested \$10 000 in a term deposit, earning interest at 9% per annum. Interest is received on 31 January and 31 July each year. The firm prepares its reports on 30 June each year.

On 31 January 2015, the firm would receive \$450 interest revenue for the first six months of the term deposit:

$$\begin{aligned} \text{Interest revenue for first 6 months} &= \$10\,000 \times 9\% \times \frac{6}{12} \\ &= \$450 \end{aligned}$$

As a result, as at 30 June 2015 the Interest Revenue account would show:

GENERAL LEDGER Interest Revenue (R)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			June 30	Bank	450



The next interest receipt is not due until 31 July 2015 – some time in the *next* Reporting Period – so the \$450 currently shown in the Interest Revenue account represents the amount actually received by 30 June 2015. But is this the **total revenue earned** in the period?

Before the reports can be prepared, the accountant must calculate how much **extra revenue has been earned**, but not yet received, and add this to the revenue account before the closing entries are made. It is therefore necessary to adjust the ledger accounts so that:

- the **extra amount earned** in the *current* Reporting Period is added to the revenue account
- a current asset account – Accrued Revenue – is created to show the **amount owing to us** (which will be received in the *next* Reporting Period).

Between the last receipt of interest (31 January 2015) and balance day (30 June 2015) are **five** months in which the business will still be earning interest revenue:

Interest revenue for 5 months	=	\$10 000	x	9%	x	$\frac{5}{12}$
	=	\$375				

This **extra interest** of \$375 has been **earned**, but is not yet received (Memo 8), and this must be recorded in the General Journal as a balance day adjustment, as is shown in Figure 16.9.

Figure 16.9 General Journal: BDA for accrued revenue

GENERAL JOURNAL

Date	Details	General Ledger		Subsidiary ledger	
		Debit	Credit	Debit	Credit
June 30	Accrued Interest Revenue	375			
	Interest Revenue		375		
	Adjusting entry to record interest earned but not received (Memo 8)				

This entry credits the **Interest Revenue** account to recognise the extra amount **earned** in the current Reporting Period. At the same time, the **Accrued Interest Revenue** account is debited to recognise the current asset: the interest owed to us. After posting, the General Ledger would appear as shown in Figure 16.10.

Figure 16.10 General Ledger: BDA for accrued revenue

General Ledger

Interest Revenue (R)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			June 30	Bank	450
				Accrued Interest Rev.	375
				825	

Accrued Interest Revenue (A)

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 30	Interest Revenue	375			

Note that the amount used in the adjustment (\$375) is not the total revenue for the period; it is simply the amount owing. It is *added* to the amount received to calculate the **total revenue earned of \$825**.

Effect on the accounting equation

As a result of the adjustment for Accrued Interest Revenue:

	Increase/Decrease/No effect	Amount \$
Assets	Increase (Accrued Interest Revenue)	375
Liabilities	No effect	
Owner's Equity	Increase (increase Interest Revenue increases Net Profit)	375

Closing the ledger

As a current asset, the Accrued Interest Revenue account will be balanced, but the Interest Revenue account will be closed to the Profit and Loss Summary account. After it has been closed, the Interest Revenue account would show:

Interest Revenue (R)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
June 30	P&L Summary	825	June 30	Bank	450
				Accrued Interest Rev.	375
		825			825

The amount closed (\$825) is greater than the amount of the adjustment (\$375); the **total revenue** includes both the \$450 received, and the \$375 still owing to us at the end of the period. For an item to be recognised as revenue, the definition requires an item to be earned; the receipt of cash is *not* necessary.

Receipt of accrued revenues in subsequent periods

Sometime in the next Reporting Period, the amount owing to us as accrued revenue will be received. Therefore, when the cash is received, some may represent a revenue of the *current* Reporting Period, but at least some of the receipt will relate to the *previous* Reporting Period. In other words, some of the amount received reduces the asset Accrued Revenue – revenue earned and accrued last period.

In our example, we created the current asset Accrued Interest Revenue on 30 June 2015 to represent the \$375 worth of interest we had earned, but not yet received. Thus, we have already counted it as revenue. So, when the second instalment of interest of \$450 is received on 31 July 2015 (Rec. 78), we cannot count it as all revenue.

We must recognise that of the \$450 received, \$375 was earned in a *previous* Reporting Period. This amount is not revenue in the current period, but rather a reduction in the current asset **Accrued Interest Revenue**. Only the remaining \$75 (\$450 received – \$375 accrued revenue = \$75) represents **revenue earned** in the *current* Reporting Period.

The receipt of interest on 31 July 2015 would be recorded in the Cash Receipts Journal as shown in Figure 16.11.

Figure 16.11 Cash Receipts Journal: accrued revenue received

Date	Details	Rec. no.	Bank	Disc. exp.	Debtors Control	Cost of Sales	Sales	Sundries	GST
July 31	Accrued Interest Rev./	78	450					375	
	Interest Revenue							75	
	Totals		41 000	900	21 650	12 000	18 000	450	1 800

The full amount received (**\$450**) is recorded in the Bank column, as this is the total cash received. However, **\$375** relates to interest that was earned in (and adjusted at the end of) June 2015. This part of the receipt decreases *Accrued Interest Revenue*. The remaining **\$75** is *Interest Revenue* earned in the current period – the new financial year, which includes July 2015.

Once the Cash Receipts Journal has been posted to the General Ledger, the accounts would appear as shown in Figure 16.12.

Figure 16.12 General Ledger: accrued revenue received

Bank (A)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	3 000			
31	Cash Receipts	41 000			

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
July 1	Balance	375	July 31	Bank	375

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
			July 31	Bank	75

Not all of the **\$450** receipt will be recorded as revenue: **\$375** was earned in the *previous* Reporting Period and only **\$75** was earned in the *current* Reporting Period.

Effect on the accounting equation

As a result of the receipt of interest revenue and Accrued Interest Revenue:

	Increase/Decrease/No effect	Amount \$
Assets	Increase (increase Bank \$450 , decrease <i>Accrued Interest Revenue</i> \$375)	75
Liabilities	No effect	
Owner's Equity	Increase (Interest Revenue increases Net Profit)	75

STUDY TIP

If GST applies to the cash received, it will be identified in the information provided.

GST on receipt of accrued revenues

In the event that GST applies to the receipt of accrued revenue, it is only the non-GST amount that would be allocated between the Revenue and Accrued Revenue accounts. In our example, it would be recorded in the Cash Receipts Journal as shown.

Cash Receipts Journal

Date	Details	Rec. no.	Bank	Disc. exp.	Debtors Control	Cost of Sales	Sales	Sundries	GST
July 31	Accrued Revenue		495					375	45
	Revenue							75	

REVIEW QUESTIONS 16.4

- 1 **Define** the term 'accrued revenue'.
- 2 **Explain** how accrued revenue is reported in the Balance Sheet.
- 3 **Distinguish** between accrued revenue and debtors.
- 4 **Show** the General Journal entries necessary to record the balance day adjustment for accrued revenue.
- 5 **State** the effect of the balance day adjustment for accrued revenue on the accounting equation.
- 6 **Explain** why the receipt of accrued revenue in a subsequent period requires the receipt to be split in the Cash Receipts Journal.
- 7 **State** the effect of the receipt of accrued revenue in a subsequent period on the accounting equation.



WHERE HAVE WE BEEN?

- Balance day adjustments are necessary so that an accurate profit is calculated by comparing revenue earned and expenses incurred in the current Reporting Period.
- Balance day adjustments may be necessary for:
 - stock losses and gains
 - prepaid expenses
 - accrued expenses
 - depreciation
 - prepaid revenues
 - accrued revenues.
- Each balance day adjustment for revenue increases revenue, thus increasing profit and owner's equity.
- Adjustments for prepaid revenues decrease liabilities; adjustments for accrued revenues increase assets.
- Balance day adjustments have no effect on cash, but will change Net Profit and the items in the Balance Sheet.



EXERCISE 16.1 PREPAID REVENUE

 page 346

On 1 March 2015, Sol's Small Goods received \$9 000 rent (plus \$900 GST) from the solicitor who rents out the top floor of the building (Rec. 54). The solicitor pays rent in advance for the next six months (Memo 44), and Sol's Small Goods prepares its financial reports on 30 June 2015.

Required

- Record** the cash received in the Cash Receipts Journal of Sol's Small Goods.
- Referring to one accounting principle, **explain** why only part of the rent received should be recognised as revenue for the year ended 30 June 2015.
- Calculate** the rent revenue earned for the year ending 30 June 2015.
- Show** the General Journal entries necessary to record rent revenue earned for the year ending 30 June 2015.
- State** the effect of the adjustment for rent revenue on the accounting equation of Sol's Small Goods.
- Show** how the Rent Revenue and Prepaid Rent Revenue accounts would appear in the General Ledger of Sol's Small Goods as at 30 June 2015 after all closing and balancing entries have been made.

EXERCISES

EXERCISE 16.2 page 348**CASH SALE INVOLVING A DEPOSIT**

On 16 January 2015, Clink Glassware received a deposit of \$400 on a bulk order from one of its customers (Rec. 84). The goods, which had a selling price of \$5 000 (plus \$500 GST) and a cost price of \$2 300, were delivered on 27 February 2015, with the customer paying the balance in cash (Rec. 92).

Required

- a Record** the deposit received on 16 January 2015 in the Cash Receipts Journal of Clink Glassware.
- b Explain** how the deposit would be reported in the Balance Sheet of Clink Glassware on 31 January 2015.
- c Record** the sale on 27 February 2015 in the journals of Clink Glassware.
- d** Referring to the Cash Receipts Journal in part 'c', **explain** why the amount recorded in the GST column does not equal 10% of the amount recorded in the Sales column.
- e Show** how the General Ledger accounts would appear after posting the journals in parts 'a' and 'c'.

EXERCISE 16.3 page 350**CREDIT SALE INVOLVING A DEPOSIT**

During December 2014, Terry's Appliances received a deposit of \$350 from Hartwell Hospitals for a washing machine that sells for \$1 400 plus GST (Rec. 107). The washing machine, which had a cost price of \$920, was delivered on 4 January 2015, with the balance on credit (Inv. 44).

Required

- a State** the effect of the deposit on the accounting equation of Terry's Appliances.
- b** Referring to one accounting principle, **explain** why the deposit is **not** recognised as revenue for December 2014.
- c Record** the sale on 4 January 2015 in the journals of Terry's Appliances.
- d State** the effect of the sale on 4 January 2015 on the accounting equation of Terry's Appliances.
- e Show** how the General Ledger accounts would appear after posting the journals in part 'c'.

EXERCISE 16.4 page 352**CREDIT SALE INVOLVING A DEPOSIT**

Insensitel recently advertised for sale a new version of its award-winning Game Station console. The console is purchased for \$120 plus GST, and is sold for \$275 including GST. On 13 November 2015, Spot On department stores ordered 30 game consoles, paying a 20% deposit on the total invoice price (Rec. 90). On 26 November 2015, Insensitel delivered all 30 game consoles to Spot On (Inv. 201).

Required

- a Calculate** the cash received by Insensitel on 13 November 2015.
- b Explain** why no GST is recognised on 13 November 2015.
- c Record** the cash received on 13 November 2015 in the Cash Receipts Journal of Insensitel.
- d** Referring to the definitions of the elements of the reports, **explain** why the transaction on 13 November 2015 must **not** be reported as revenue.
- e Record** the sale on 13 November 2015 in the journals of Insensitel.
- f Show** how the General Ledger accounts would appear after posting the journals in part 'e'.
- g State** the effect on the accounting equation of Insensitel if the sale on 26 November 2015 had **not** been recorded.

EXERCISE 16.5**ACCRUED REVENUE**
 page 355

During August 2015, Gavin Jewellery received \$6 000 interest revenue, but as at 31 August 2015 it was still owed \$700 interest from one of its investments (Memo 95).

Required

- a** Referring to one accounting principle, **justify** why the interest owing should be included in the Interest Revenue account for August 2015.
- b Show** the General Journal entries necessary to record accrued interest revenue as at 31 August 2015.
- c State** the effect of the adjustment for accrued interest revenue on the accounting equation of Gavin Jewellery.
- d Show** how the interest revenue and accrued interest revenue accounts would appear in the General Ledger of Gavin Jewellery as at 31 August 2015 after all closing and balancing entries have been made.
- e Explain** how the accrued interest revenue would be reported in the Balance Sheet of Gavin Jewellery as at 31 August 2015.

EXERCISE 16.6**ACCRUED REVENUE**
 page 357

On 1 March 2015, Diana's Delicacies invested \$50 000 in a 10-year term deposit at a fixed rate of 12% per annum. Interest revenue is directly credited to the firm's bank account in equal instalments on the last day of May, August, November and February. This is verified by the bank statement. Balance day is 30 June 2015.

Required

- a Calculate** interest revenue received on 31 May 2015.
- b Calculate** accrued interest revenue as at 30 June 2015.
- c Show** the General Journal entries necessary to record accrued interest revenue for the year ended 30 June 2015. (Narration is **not** required.)
- d Show** how the interest revenue and accrued interest revenue accounts would appear in the General Ledger of Diana's Delicacies as at 30 June 2015 after all closing and balancing entries have been made.
- e Record** the receipt of interest on 31 August 2015 in the Cash Receipts Journal.
- f Explain** why only some of the interest received on 31 August 2015 should be reported as revenue for the year ended 30 June 2016.

EXERCISE 16.7

ACCRUED REVENUE

 page 359

During April 2015, Weights World received commission revenue of \$8 000 plus GST for weights it had sold on behalf of specialist gyms. As at 30 April 2015, a further \$4 000 was still owing (Memo 54). On 3 May 2015, \$6 600 including GST was received for commission revenue (Rec. 31).

Required

- a Calculate** commission revenue earned for April 2015.
- b Show** the General Journal entries necessary to record accrued commission revenue as at 30 April 2020.
- c State** the effect on Net Profit for April 2015 if the adjustment for accrued commission revenue was **not** made.
- d Record** the receipt of the commission on 3 May 2015 in the Cash Receipts Journal.
- e State** the effect of the receipt of the commission on 3 May 2015 on the accounting equation of Weights World.
- f Show** how the Commission Revenue and Accrued Commission Revenue accounts would appear in the General Ledger of Weights World after all the information was recorded.

EXERCISE 16.8

ACCRUED REVENUE

 page 361

On 1 September 2014, Sound Waves invested \$5 000 into a six-month term deposit, with interest earned at 6% per annum, payable at the end of the six-month term. On maturity at 28 February 2020, a cheque for \$5 150 was received from the bank (Rec. 57).

Required

- a Show** the General Journal entries necessary to record the interest revenue earned for the year ended 31 December 2014. (Narration is **not** required.)
- b Record** the cash received on 28 February 2015 in the Cash Receipts Journal.
- c Show** how the cash received on 28 February 2015 would be reported in the Cash Flow Statement of Sound Waves for the year ended 31 December 2015.
- d Discuss** how the \$5 000 cash received from the Term Deposit should be reported in the Cash Flow Statement.



EXERCISE 16.9 REPORTING FOR PREPAID AND ACCRUED REVENUES

 page 362

Rawson Rugs has provided the following Trial Balance as at 31 December 2015:

RAWSON RUGS
Trial Balance as at 31 December 2015

Account	Debit	Credit
Advertising	340	
Bank	2 100	
Capital – Parker		51 540
Cartage In	990	
Cost of Sales	20 620	
Creditors Control		31 070
Debtors Control	29 600	
Depreciation – Premises	3 900	
Discount Expense	690	
Drawings	8 610	
GST Clearing		390
Interest Expense	400	
Accumulated Depreciation – Premises		19 500
Mortgage – Bank of Erica (repayable \$12 000 p.a.)		100 000
Premises	130 000	
Prepaid Advertising	1 360	
Prepaid Sales Revenue		1 680
Profit on Disposal of Vehicle		650
Sales		43 000
Sales Returns	860	
Stock Control	38 750	
Stock Gain		130
Stock Write-down	240	
Term Deposit (matures 15 April 2020)	3 600	
Wages	5 900	
Totals	\$247 960	\$247 960

Additional information:

- Reports are prepared on 31 December each year. Balance day adjustments for expense items have already been recorded.
- During the financial year a customer returned a rug that had been soiled during the delivery to her house. This rug was thrown away.
- The Term Deposit was taken out on 1 December 2015. Interest is earned at 5% per annum, with interest for December due to be received on 3 January 2016.
- Prepaid Sales Revenue relates to an order from F. Khari; the rugs had a selling price of \$3 300 including GST and a cost price of \$2 000. The rugs, and Invoice 401, were delivered on 31 December 2015 after the journals had been posted to the General Ledger.

Required

- Referring to one accounting principle, **explain** the purpose of making balance day adjustments.
- Show** the General Journal entries necessary to record the additional information on 31 December 2015. (Narrations are **not** required.)

- * **c Prepare** a Post-adjustment Trial Balance for Rawson Rugs as at 31 December 2015.
- * **d Prepare** an Income Statement for Rawson Rugs for the year ended 31 December 2015.
- e** Referring to your answer to part 'd' **identify** two items that resulted from the rug that was returned and thrown away.
- * **f Prepare** a classified Balance Sheet for Rawson Rugs as at 31 December 2015.

EXERCISE 16.10

REVENUES, RECORDS AND REPORTS

 page 366

MM's Music has provided the following extract from its Trial Balance as at 30 June 2015:

MM's MUSIC
Trial Balance (extract) as at 30 June 2015

Account	Debit \$	Credit \$
Accrued Wages		1 900
Bank		1 800
Cost of Sales	120 000	
Creditors Control		44 900
Debtors Control	12 300	
Discount Expense	860	
Discount Revenue		410
GST Clearing		630
Loan – QuickFin (repayable \$600 per month)		25 000
Prepaid Advertising	10 400	
Prepaid Sales Revenue		16 000
Sales		160 000
Stock Control	83 460	
Stock Write-down	1 500	

Additional information:

- On 30 June 2015, a vehicle was traded in for \$3 100 on a new vehicle with a cost price of \$23 000 plus GST, which was purchased on credit from Q Motors. The old vehicle had been purchased for \$20 000, and had a carrying value of \$3 500 at the time of the trade-in.
- During June 2015, a sale for \$4 000 plus GST was made to A. Gerling (Inv. 36). The stock had a cost price of \$2 500, but Gerling had paid a \$500 deposit earlier in the month.
- Interest revenue of \$350 had been earned but not yet received.

Required

- a Suggest** two possible reasons (other than damage) for the stock write-down.
- b Show** the General Journal entries necessary to record the additional information. (Narrations are **not** required.)
- c Suggest** two reasons for the profit or loss on the disposal of the vehicle.
- d** Referring to one qualitative characteristic, **explain** the purpose of closing the ledger.
- e Show** the General Journal entries necessary to close the revenue accounts.
- * **f Prepare** a Balance Sheet for MM's Music as at 30 June 2015 showing the firm's Current Assets and Current Liabilities. (A full Balance Sheet is **not** required.)
- g** Referring to your answer to part 'f', **explain** your classification of GST Clearing.

budgeting

the process of predicting/estimating the financial consequences of future events

budget

an accounting report that predicts/estimates the financial consequences of future events

STUDY TIP

If you can prepare reports, you can prepare budgeted reports, because they contain the same types of items.

17.1 BUDGETING

So far this text has dealt only with historical transactions, concentrating on how to identify, record and report events that have already occurred. This is a logical starting point to analyse business performance, as without information on what has already happened, we are unable to identify areas that may need to be improved. However, it is also important to keep an eye on the future. Business owners must attempt to predict what will happen in the future, so that they can plan ahead and be prepared for what is likely to occur. This is the focus of **budgeting**: the process of preparing reports that *estimate* or predict the financial consequences of likely *future* transactions.

Budgeted reports

A small business owner could prepare a **budget** on just about any area of business performance, ranging from how many sales are made in a month, to how much will be spent on advertising, and how many returns will be made. In this course, we will concentrate on three general-purpose budgets:

- the *Budgeted Cash Flow Statement*, which shows all expected future cash inflows and cash outflows, the actual bank balance at the start of the period, and the expected bank balance at the end of the period
- the *Budgeted Income Statement*, which shows all expected future revenues and expenses, and the expected Gross Profit, Adjusted Gross Profit and Net Profit.
- the *Budgeted Balance Sheet*, which shows all expected assets, liabilities and owner's equity at some point in the future.

Budgeted versus actual reports

Budgets or budgeted reports differ from the actual, or historical, reports we have prepared so far in two key ways:

- Budgets report *future* events rather than historical events. They focus on what will happen rather than what has already happened.
- As a consequence, budgets use *estimates* or *predictions* rather than actual, verifiable data.

In all other ways, budgeted reports are the same as actual reports; they use the same headings, and include the same items.

The importance of budgeted Sales

As we have seen in earlier chapters, the accounting reports are interconnected, with transactions reported in one affecting items reported in another, and this is no different for budgets. This means it is essential that the preparation of budgeted reports begin with an accurate estimate of budgeted sales.

First, sales is the main revenue item in the Budgeted Income Statement, and generates significant cash inflows: either as Cash Sales or, if credit sales are involved, as Receipts from Debtors. Second, the level of sales will be crucial in estimating the expenses that vary with the number of units sold (such as Cost of Sales and Wages), and their corresponding cash outflows. Third, the level of sales will affect how much stock is purchased, which will, in turn, affect cash paid to creditors.

The Balance Sheet does not report sales directly, but because it uses figures derived from the other two reports, its accuracy is also dependant on an accurate estimate of sales. At the very least, the expected bank figure will come straight from the Budgeted

Cash Flow Statement, and the expected Net Profit or Loss will be determined in the Budgeted Income Statement.

The purpose of budgeting

In common with all accounting reports, budgets have a role in both planning and decision-making. Specifically:

- Budgeting *assists planning* by predicting what is likely to occur in the future. This allows the owner to prepare so that possible problems may be managed, and possible opportunities may be taken.
- Budgeting *aids decision-making* by providing a standard against which actual performance can be measured. This allows the owner to identify areas in which performance is unsatisfactory, so that remedial action can be taken. This can include the calculation of budgeted ratios and other indicators of performance.



In common with all accounting reports, budgets have a role in both planning and decision-making

REVIEW QUESTIONS 17.1

- 1 **Define** the term 'budgeting'.
- 2 **Identify** the information that is reported in a:
 - Budgeted Cash Flow Statement
 - Budgeted Income Statement
 - Budgeted Balance Sheet.
- 3 **State** two differences between the information presented in budgeted reports and actual reports.
- 4 **Explain** why it is important to have an accurate estimate of budgeted sales.
- 5 **Explain** how budgets assist planning.
- 6 **Explain** how budgets assist decision-making.

STUDY TIP

If GST is identified, it can be recorded in the Cash Receipts Journal.

17.2 THE BUDGETING PROCESS

It has been said that failing to plan is planning to fail, so the preparation of budgeted reports should be one of the first steps in starting a new business. However, budgeting should be a *continuous process*; budgets should be compared against actual reports to allow problems to be identified, decisions should be made based on that assessment, and then new budgets should be prepared for the *next period*. This budgeting process is shown in Figure 17.1.

Figure 17.1 The budgeting process



A budget has limited value if it is not used to make decisions to improve business performance in the future. In addition, it makes little sense to develop a budget for one period without preparing another budget for the next period. Under the Going Concern principle, businesses are assumed to be continuous, so the budgeting process should be continuous too.

The information presented in the budgeted reports should be based on the historical data, but allowances must be made for changes and the effect of new business decisions. Obviously, a 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 17.2

- 1 Explain why budgeting is described as a process.
- 2 Outline the various stages in the budgeting process.
- 3 Explain the role of historical data in the preparation of budgeted reports.

17.3 THE BUDGETED CASH FLOW STATEMENT

Budgeted Cash Flow Statement

an accounting report that attempts to predict all future cash inflows and cash outflows, and thus the estimated bank balance at the end of the budget period

In order to survive, a small business must have sufficient cash to meet its obligations. These obligations will include making Payments to Creditors, paying expenses (such as wages, rent and advertising), meeting loan repayments and providing drawings for the owner. In order to do this, the business must generate sufficient cash inflows, chiefly through its Cash Sales and Receipts from Debtors. The **Budgeted Cash Flow Statement** attempts to predict all future cash inflows and cash outflows, and thus the estimated bank balance at the end of the budgeted period, to assist the owner in assessing the firm's ability to meet its obligations over the budget period.

Remember that the Cash Flow Statement classified the inflows and outflows as Operating, Investing and Financing activities, and these classifications must also be present in the Budgeted Cash Flow Statement.

Operating activities

Operating activities are all cash flows related to the firm's day-to-day trading activities.

Operating cash flows that we would expect to see in a typical Budgeted Cash Flow Statement might include:

Operating cash inflows

Cash Sales
 Receipts from Debtors
 Other revenue *received*
 (may also be titled 'accrued' and/or 'prepaid')
 GST received
 GST refund

Operating cash outflows

Cash purchases (of stock)
 Payments to Creditors
 Other Expenses *paid*
 (may also be titled 'accrued' and/or 'prepaid')
 GST paid
 GST settlement

Ideally, the budgeted Net Cash Flows from Operations will be positive. This means that the business will generate sufficient cash from its Operations to meet its ongoing obligations. By preparing the Budgeted Cash Flow Statement, the owner will be forewarned if the Operating cash flows are expected to be negative. The owner can then take steps to address the cash shortage before it occurs by implementing strategies to:

- increase expected inflows, such as
 - increase Sales (for example, via promotions, greater advertising or discounting prices)
 - increase Receipts from Debtors (for example, via offering discounts, contacting slow payers or sending reminder notices)
- decrease expected outflows, such as
 - defer Payments to Creditors
 - cut back on cash paid for expenses.

The owner must be particularly mindful of reducing cash paid for expenses, as the benefits that expenses provide are vital in the earning of sales, and hence the generation of cash inflows; cutting expenses may make the cash situation worse rather than better.

Investing activities

Investing activities are all cash flows relating to the purchase or sale of non-current assets.

Investing cash flows that we would expect to see in a typical Budgeted Cash Flow Statement might include:

Investing cash inflows

Cash sale of a non-current asset

Investing cash outflows

Cash purchase of a non-current asset
 Cash paid to a sundry creditor

Given that non-current assets are frequently expensive, and sales of non-current assets are rare, it will be common for budgeted Net Cash Flows from Investing Activities to be negative.

STUDY TIP

These three Investing cash flows are the only ones in this course (but there may be more than one of each type).

STUDY TIP

These four Financing cash flows are the only ones in this course.

Financing activities

Financing activities are all cash flows that are the result of changes in the firm's financial structure.

Financing cash flows that we would expect to see in a typical Budgeted Cash Flow Statement might include:

Financing cash inflows

Loan (receipt of)
Capital contribution (cash only)

Financing cash outflows

Loan repayment (principal only)
Cash drawings

Whether Net Cash Flows from Financing Activities is positive or negative will depend very much on whether the business is expanding, or simply continuing its operations as they are. There may in fact be a relationship between Financing and Investing Activities; negative Investing cash flows (due to the purchase of non-current assets) could be financed by positive Financing cash flows (in the form of a loan or capital contribution).

EXAMPLE

Denzel Washing Machines will begin trading Operations on 1 March 2016, and has provided the following estimates for its first month of Operations:

- The owner will make a capital contribution of **\$30 000** to commence Operations.
- Cash Sales are estimated to be **\$24 000** plus GST.
- Credit Sales are estimated to be **\$17 600** including GST. Of this amount, **\$11 000** is expected to be received in March 2016.
- All stock will be purchased on credit. Purchases for March 2016 are expected to be **\$35 000** plus **\$3 500** GST. At the end of March 2016 it is anticipated that **\$6 500** will be owed to creditors.
- Cost of Sales is expected to be **\$20 000** and, based on the experience of similar firms, Stock Loss is expected to be **\$300**.
- The following expenses will be incurred during March 2016

– wages	\$ 8 000
– advertising	1 300 (plus \$130 GST)
– depreciation of office equipment	100
- Rent for the next six months will be paid on 1 March 2016: **\$9 000** plus **\$900** GST
- New office equipment worth **\$5 000** (plus **\$500** GST) will be purchased on 1 March 2016 using cash.
- Cash drawings will be **\$1 000**. Drawings of stock is expected to be **\$600**.
- On 31 March 2016, **\$10 000** will be borrowed from AXC Bank to purchase a new vehicle. Beginning in April 2016, **\$500** will be paid off the principal each month. The vehicle will not be purchased until April 2016.

The Budgeted Cash Flow Statement for Denzel Washing Machines is shown in Figure 17.2.

Figure 17.2 Budgeted Cash Flow Statement

DENZEL WASHING MACHINES		
Budgeted Cash Flow Statement for March 2016		
	\$	\$
CASH FLOW FROM OPERATING ACTIVITIES		
Cash inflows		
Cash Sales	24 000	
Receipts from Debtors	11 000 ¹	
GST Received	2 400 ²	37 400
Less Cash Outflows		
Payments to Creditors	32 000 ³	
Wages	8 000	
Advertising	1 300	
Prepaid Rent	9 000 ⁴	
GST Paid	1 530 ⁵	51 830
Net Cash Flows from Operations		(14 430)
CASH FLOW FROM INVESTING ACTIVITIES		
Cash Inflows		
Nil		
Less Cash Outflows		
Office Equipment		5 000
Net Cash Flows from Investing Activities		(5 000)
CASH FLOW FROM FINANCING ACTIVITIES		
Cash Inflows		
Capital Contribution	30 000	
Loan – AXC Bank	10 000	40 000
Less Cash Outflows		
Drawings		1 000
Net Cash Flows from Financing Activities		39 000
Net Increase (Decrease) in Cash Position		19 570
Add Bank Balance at start (1 March 2016)		Nil
Bank Balance at end (31 March 2016)		19 570

Note the following in Figure 17.2:

- 1 Credit Sales is a revenue but not a cash flow: only the cash received from debtors (\$11 000) is reported here.
- 2 GST received is calculated as 10% of the Cash Sales figure; that is
 $\$24\,000 \text{ Cash Sales} \times 10\% \text{ GST} = \$2\,400 \text{ GST Received}$
- 3 Credit purchases of stock plus GST (\$35 000 + \$3 500 = \$38 500) will create a debt to creditors, but at the end of March 2016 only \$6 500 will remain owing, meaning the difference will be paid to creditors; that is
 $\$38\,500 - \$6\,500 = \$32\,000 \text{ Payments to Creditors}$
- 4 Regardless of how much has been *incurred*, the total cash *paid* for rent (\$9 000) is reported here. Because it is paid *in advance*, it is titled '*Prepaid Rent*'.

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.

- 5 Total GST paid is calculated by adding the GST paid on advertising, prepaid rent and office equipment; that is

$$\text{\$130} + \text{\$900} + \text{\$500} = \text{\$1 530 GST paid}$$

In addition, note that not all the transactions are reported in the Budgeted Cash Flow Statement, because not all involve cash. In this example, Credit Sales and credit purchases (and the GST related to each), Cost of Sales, Stock Loss, depreciation of office equipment and drawings of stock have been excluded as they are non-cash transactions. They may affect other budgeted reports, but not the Budgeted Cash Flow Statement.

Consecutive budgets

The preceding budget relates only to one month taken in isolation, but it would be wise for a business to prepare budgets for consecutive months to show the effect of monthly variations; that is, separate budgets for March, April, May, etc. could be prepared and presented side by side to show trends in inflows and outflows from month to month. Such a budget may appear as is shown in Figure 17.3.

Note how the balance at the end of March (**\\$19 570**) is then transferred to become the balance at the start of April; April's closing balance (**\\$17 310**) becomes the opening balance for May; and so on.

This type of budget allows the owner to identify monthly and even seasonal trends, and can be very useful for identifying *when* to undertake a particular cash activity, such as the purchase of a non-current asset or repayment of a loan.

In general, more frequent budgets will be more accurate, and therefore more useful as benchmarks for comparison. In addition, they will allow for the earlier detection of problems, so that corrective action can be taken in a more timely fashion, and can perhaps stop a small problem from becoming large.

Figure 17.3 Budgeted Cash Flow Statement: consecutive periods

DENZEL WASHING MACHINES			
Budgeted Cash Flow Statement for March–May 2016			
	March	April	May
CASH FLOW FROM OPERATING ACTIVITIES			
Cash Inflows			
Cash Sales	24 000	28 000	27 000
Receipts from Debtors	11 000	15 000	13 000
GST Received	2 400	2 800	2 700
GST Refund	–	–	1 100
Total Operating Inflows	37 400	45 800	43 800
Less Cash Outflows			
Payments to Creditors	32 000	36 000	33 000
Wages	8 000	9 000	8 500
Advertising	1 300	1 300	1 300
Prepaid Rent	9 000	–	–
GST Paid	1 530	130	830
Total Operating Outflows	51 830	46 430	43 630
Net Cash Flows from Operations	(14 430)	(630)	170
CASH FLOW FROM INVESTING ACTIVITIES			
Cash Inflows			
Proceeds on Sale of Equipment	–	–	1 600
Less Cash Outflows			
Office Equipment	5 000	–	7 000
Net Cash Flows from Investing Activities	(5 000)	Nil	(5 400)
CASH FLOW FROM FINANCING ACTIVITIES			
Cash Inflows			
Capital Contribution	30 000	–	–
Loan – AXC Bank	10 000	–	–
Total Financing Inflows	40 000	Nil	Nil
Less Cash Outflows			
Drawings	1 000	1 000	1 000
Net Cash Flows from Financing Activities	39 000	(1 000)	(1 000)
Net Increase (Decrease) in Cash Position	19 570	(1 630)	(6 230)
Add Bank Balance at start	Nil	19 570	17 310
Bank Balance at end	19 570	17 310	11 080

REVIEW QUESTIONS 17.3

- 1 **Define** the following terms as they relate to the Budgeted Cash Flow Statement and provide one example of an inflow, and one example of an outflow that would fall under each of these headings:
 - Operating Activities
 - Investing Activities
 - Financing Activities.
- 2 **Explain** why it is important that budgeted Net Cash Flows from Operations is positive.
- 3 **State** two actions the owner could take to:
 - improve estimated Operating inflows
 - reduce estimated Operating outflows.
- 4 **State** two expected expenses that will **not** be reported in the Budgeted Cash Flow Statement.
- 5 **Explain** why it is usual for Net Cash Flows from Investing Activities to be negative.
- 6 **Explain** the possible relationship between the cash flows from Investing and Financing activities.
- 7 **Explain** two benefits of preparing budgets more frequently than once a year.

17.4 USES OF THE BUDGETED CASH FLOW STATEMENT

Planning

The Budgeted Cash Flow Statement *aids planning* by allowing the owner to prepare in advance for an expected cash surplus or cash deficit. Should the budget predict an overall Net Decrease in Cash Position, the owner might:

- defer the purchase of non-current assets, or use credit facilities or a loan for a purchase
- defer loan repayments
- take less cash as drawings
- make a cash capital contribution
- organise (or extend) an overdraft facility.

Should the budget predict an overall Net Increase in Cash Position, the owner might use the extra cash to:

- purchase more/newer non-current assets
- increase loan repayments
- increase cash drawings
- expand trading activities by increasing advertising or employing more staff, for example.

Alternatively, a business starting a period with a bank overdraft may choose to do nothing, and let the expected cash surplus bring its bank balance back into the black.

Decision-making

In addition, the Budgeted Cash Flow Statement *aids decision-making* because it sets a standard (benchmark) for the assessment of the firm's actual cash performance. By comparing budgeted and actual cash flows, the owner can identify problem areas, and then act to correct the situation.

Specifically, the owner could assess:

- the effectiveness of advertising in generating Cash Sales
- debtor collection procedures
- creditor payment policies
- the level of cash payments for expenses
- the level of cash drawings
- the adequacy of finance for the purchase of non-current assets.

REVIEW QUESTIONS 17.4

- 1 **Explain** how the Budgeted Cash Flow Statement can assist planning.
- 2 **State** three actions the owner could take to address a budgeted cash decrease.
- 3 **State** three actions the owner could take to utilise a budgeted cash increase.
- 4 **Explain** how the Budgeted Cash Flow Statement can assist decision-making.

17.5 CALCULATING CASH FLOWS

Schedule of Receipts from Debtors

In the example in 17.2, we reported Receipts from Debtors in the Budgeted Cash Flow Statement rather than Credit Sales, as we were interested only in reporting cash flows. This distinction is very important; the credit sale and receipt of the cash may even take place in different reporting periods. In some cases, it may be necessary to calculate how much will be received from debtors during the *budget* period from Credit Sales made in *previous* periods and, in some cases, the *current* period.

Integral to this type of calculation is knowledge of the historical behaviour of debtors in making their repayments. The business owner needs to be able to estimate approximately how long debtors take to pay. Based on the information in the Debtors Ledger, owners can estimate what percentage of debtors pay within a month of the sale, within two months, and so on, thereby allowing them to calculate the expected Receipts from Debtors for the budget period. This calculation is facilitated by the preparation of a *Schedule of Receipts from Debtors*.

Schedule of Receipts from Debtors

a table used to calculate how much cash will be received from debtors in the budget period as a consequence of Credit Sales in the current and previous periods

Facial Attractions sells make-up and other cosmetics, and wants to prepare a Budgeted Cash Flow Statement for October, November and December 2016. On 30 September 2016, its owner provided the following Sales data:

Actual Sales	July	\$21 000
	August	20 000
	September	22 000
Budgeted Sales	October	19 000
	November	23 000
	December	25 000

- Sales figures do not include GST
- 80% of Sales are made on credit; 20% are made on cash terms.

EXAMPLE

If we were preparing a Budgeted Income Statement, we would not have to make any calculations, as we already have information relating to expected Sales Revenue for each month. However, in order to prepare a Budgeted Cash Flow Statement, we need to calculate expected Receipts from Debtors.

First, we must calculate how much of the total Sales figure is **Cash Sales**, and how much is made on **credit**. This is shown in Figure 17.4.

Figure 17.4 Schedule of cash and credit sales

Month	Total Sales	Cash Sales 20%	Credit Sales 80%
July	21 000	4 200	16 800
August	20 000	4 000	16 000
September	22 000	4 400	17 600
October	19 000	3 800	15 200
November	23 000	4 600	18 400
December	25 000	5 000	20 000

The Cash Sales figures for **October to December** can go straight into the Budgeted Cash Flow Statement (as Operating inflows) as they represent cash flows in the months when the sale is made. (Cash Sales for July to September are outside the budget period, and so are excluded.)

As these are Sales, GST will also be received at the rate of 10% of the Cash Sales figure. The cash receipts arising from Cash Sales for October to December 2016 would thus be:

	October	November	December
CASH FLOW FROM OPERATING ACTIVITIES			
Cash Inflows			
Cash Sales	3 800	4 600	5 000
GST Received	380	460	500

However, we need to calculate how much cash will be received in October to December as a result of credit sales in earlier months. In order to do this, we must first add to our credit sales the GST we will charge debtors, as both amounts must be collected from debtors.

Figure 17.5 Credit Sales and GST

Month	Credit Sales (excluding GST)	GST charged (10%)	Credit Sales (including GST)
July	16 800	1 680	18 480
August	16 000	1 600	17 600
September	17 600	1 760	19 360
October	15 200	1 520	16 720
November	18 400	1 840	20 240
December	20 000	2 000	22 000



Given the total amount owed to us by debtors (**Credit Sales including GST**), we can now move to calculating **Receipts from Debtors** from those credit sales. This requires more information about the repayment patterns of the firm's debtors:

Additional information

Based on an analysis of the firm's debtors, the owner expects 25% of debtors to pay in the month after the sale. These debtors receive a 5% discount. Of the remainder, 60% of debtors pay two months after the sale, and 15% pay in the third month after sale.

EXAMPLE

Based on this information, we can prepare a Schedule of Receipts from Debtors like the one shown in Figure 17.6.

Figure 17.6 Schedule of Receipts from Debtors

Month	Credit Sales (including GST)	October	November	December
July	18 480	2 772		
August	17 600	10 560	2 640	
September	19 360	4 598	11 616	2 904
October	16 720		3 971	10 032
November	20 240			4 807
December	22 000			
Budgeted Receipts from Debtors		17 930	18 227	17 743

STUDY TIP

The Schedule of Receipts from Debtors is not a budgeted report; it is simply a technique used to calculate Receipts from Debtors, which can then be shown in the Budgeted Cash Flow Statement.

STUDY TIP

With the discount, don't just multiply \$19 360 by 20% (that is, 25% less 5%); this would give the discount to all debtors, rather than just those who pay within one month.

The months across the top of the table (October, November, December) are those for which we are preparing the budget. The months down the left side (July to December) are those for which we have Sales data.

If we examine the amount owing for credit sales made in September, we can see how the calculations were made. Based on the analysis of when debtors pay, 25% of the September credit sales figure (**\$19 360** including GST) less the 5% discount will be collected in the month after the sale; that is, in October.

Amount owing for credit sales (including GST)	\$19 360
x 25% (received one month after sale)	4 840
less 5% discount (5% x \$4 840)	242
Cash received from debtors (in October)	<u><u>\$ 4 598</u></u>

A further \$11 616 (60% of **\$19 360**) will be collected two months later in November 2016, and the final \$2 904 (15% of **\$19 360**) will be collected three months after the sale in December 2016.

The same process applies to the other months to show that although a credit sale is made in one month, the cash may be received over a number of months.

If we add up all the figures in the columns for October, November and December, we can calculate estimated **Receipts from Debtors** for each month. This information can now be reported in the Budgeted Cash Flow Statement, along with the **Cash Sales** figures we had already calculated, as is shown over the page:

FACIAL ATTRACTIONS

Budgeted Cash Flow Statement (extract) for October–December 2016

	October	November	December
CASH FLOW FROM OPERATING ACTIVITIES			
Cash Inflows			
Cash Sales	3 800	4 600	5 000
GST Received	380	460	500
Receipts from Debtors	17 930	18 227	17 743

Remember that although the cash received from debtors includes some GST, it is not necessary to identify this amount separately as the GST is only identified at the point of sale: only **GST received** (on Cash Sales) must be reported separately.

Schedule of Payments to Creditors

This technique can also be applied to calculate Payments to Creditors, with credit purchases substituting for credit sales. In order to draw up a **Schedule of Payments to Creditors**, we require information on how frequently creditors are paid so that we can calculate *when*, and *how much*, creditors will be paid during the budget period.

Schedule of Payments to Creditors

a table used to calculate how much cash will be paid to creditors in the budget period as a consequence of credit purchases in the current and previous periods

REVIEW QUESTIONS 17.5

- 1 Referring to one accounting principle, **explain** why it may be necessary to prepare a Schedule of Receipts from Debtors when preparing a Budgeted Cash Flow Statement.
- 2 **Explain** the role of historical data in the preparation of a Schedule of Receipts from Debtors.
- 3 **Explain** why Receipts from Debtors must be calculated using credit sales including GST.
- 4 **Explain** why the GST must be identified when Cash Sales are shown in the Budgeted Cash Flow Statement.
- 5 **State** one reason why the GST is **not** identified when cash is received from a debtor.

17.6 THE BUDGETED INCOME STATEMENT

Given that the main objective of a trading business is to earn a profit, the owner should plan ahead for how to achieve this goal. In addition, the firm must have some type of benchmark against which it can assess its trading (profit) performance. Both of these aims are met by the preparation of a **Budgeted Income Statement**, which attempts to predict revenues and expenses for the budget period.

Budgeted Income Statement

an accounting report that shows expected future revenues and expenses

Cash versus profit

At this point it is probably worth remembering that cash and profit are different measures of performance, and therefore the items reported in the Budgeted Income Statement will not necessarily be the same as those reported in the Budgeted Cash Flow Statement. Whereas the **Budgeted Cash Flow Statement** reports expected *cash inflows* and *cash outflows* over the budget period, the **Budgeted Income Statement** reports expected *revenues earned* and expected *expenses incurred* over the budget period.

As some cash items are not revenues or expenses, they will be omitted from the Budgeted Income Statement:

Cash inflows that are not revenues	Cash outflows that are not expenses
GST received	GST paid
GST refund	GST settlement
Cash sale of NCA*	Cash payment for NCA/to sundry creditor
Cash capital contribution	Cash drawings
Receipt of loan	Repayment of loan principal

* Strictly speaking, cash sale from an NCA represents revenue. However, it is only the overall profit (or loss) on the disposal that is reported in the Budgeted Income Statement.

However, the Budgeted Income Statement will include some revenues and expenses that are not reported as cash flows:

Revenues that are not cash inflows	Expenses that are not cash outflows
Stock gain	Stock Loss
	Stock write-down
Profit on disposal of NCA	Loss on disposal of NCA
	Bad debts
	Depreciation

Finally, some of the items will affect both budgets, but the amounts may differ:

Revenue/expense	Cash inflow/cash outflow
Credit Sales	Receipts from Debtors
Cost of Sales	Payments for stock
Other revenue <i>earned</i>	Other revenue <i>received</i> (may also be titled accrued and/or prepaid)
Other Expense <i>incurred</i>	Other Expense <i>paid</i> (may also be titled accrued and/or prepaid)

Let's use the information that was used to generate the Budgeted Cash Flow Statement in Figure 17.2 to illustrate how the Budgeted Income Statement will appear, but this time with the revenues and expenses highlighted.

EXAMPLE

Denzel Washing Machines will begin trading Operations on 1 March 2016, and has provided the following estimates for its first month of Operations:

- The owner will make a capital contribution of \$30 000 to commence Operations.
- Cash Sales are estimated to be \$24 000 plus GST.
- Credit Sales are estimated to be \$17 600 including GST. Of this amount, \$11 000 is expected to be received in March 2016.
- All stock will be purchased on credit. Purchases for March 2016 are expected to be \$35 000 plus \$3 500 GST. At the end of March 2016 it is anticipated that \$6 500 will be owed to creditors.

- Cost of Sales is expected to be \$20 000 and, based on the experience of similar firms, Stock Loss is expected to be \$300.
- The following expenses will be incurred during March
 - wages \$ 8 000
 - advertising 1 300 (plus \$130 GST)
 - depreciation of office equipment 100
- Rent for the next six months will be paid on 1 March 2016: \$9 000 plus \$900 GST.
- New office equipment worth \$5 000 plus \$500 GST will be purchased on 1 March 2016 using cash.
- Cash drawings will be \$1 000. Drawings of stock is expected to be \$600.
- On 31 March 2016, \$10 000 will be borrowed from AXC Bank to purchase a new vehicle. Beginning in April 2016, \$500 will be paid off the principal each month. The vehicle itself will not be purchased until April 2016.

The Budgeted Income Statement for March 2016 is shown in Figure 17.7.

Figure 17.7 Budgeted Income Statement

DENZEL WASHING MACHINES		
Budgeted Income Statement for March 2016		
Revenue	\$	\$
Cash Sales	24 000	
Credit Sales	16 000 ¹	40 000
Less Cost of Goods Sold		
Cost of Sales		20 000
Gross Profit		20 000
Less Stock Loss		300
Adjusted Gross Profit		19 700
Less Other Expenses		
Wages	8 000	
Advertising	1 300	
Depreciation of Office Equipment	100	
Rent	1 500 ²	10 900
Net Profit		8 800

Note the following in Figure 17.7:

- 1 Credit Sales of \$17 600 includes GST. Thus, the amount of Credit Sales revenue is only \$16 000; that is

$$\$17\,600 \times \frac{10}{11} = \$16\,000 \text{ Credit Sales}$$

- 2 Prepaid rent is not shown in this report as it is the purchase of a current asset. In terms of expenses, only one month has been incurred; that is,

$$\$9\,000 \times \frac{1}{6} \text{ months} = \$1\,500 \text{ Rent Expense}$$

Uses of the Budgeted Income Statement

The Budgeted Income Statement *aids planning* because it indicates the future requirements of the firm relating to issues such as staffing, which may require hiring or firing; stock levels; or advertising campaigns.

As a *decision-making* tool, the Budgeted Income Statement provides a standard against which 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:

- the level of sales and the effectiveness of advertising
- the mark-up achieved
- the level of stock loss to assess stock management procedures
- expense control
- staff performance.

REVIEW QUESTIONS 17.6

- 1 **Explain** the difference between a Budgeted Cash Flow Statement and a Budgeted Income Statement.
- 2 **State** two examples of:
 - cash inflows that are not revenues
 - cash outflows that are not expenses.
- 3 **State** two examples of:
 - revenues that are not cash inflows
 - expenses that are not cash outflows.
- 4 **Explain** how a Budgeted Income Statement can be used to assist planning.
- 5 **Explain** how a Budgeted Income Statement can be used to assist decision-making.
- 6 **State** three areas of business performance the owner might assess by using the Budgeted Income Statement as a benchmark.

Budgeted Balance Sheet
an accounting report that predicts assets, liabilities and owner's equity at some point in the future

17.7 THE BUDGETED BALANCE SHEET

The **Budgeted Balance Sheet** attempts to predict the firm's assets, liabilities and owner's equity at some point in the future. Remember the example from earlier in this chapter:

EXAMPLE

Denzel Washing Machines will begin trading Operations on 1 March 2016, and has provided the following estimates for its first month of Operations:

- The owner will make a capital contribution of \$30 000 to commence Operations.
- Cash Sales are estimated to be \$24 000 **plus GST**.
- Credit Sales are estimated to be \$17 600 **including GST**. Of this amount, \$11 000 is expected to be received in March 2016.
- All stock will be purchased on credit. Purchases for March 2016 are expected to be **\$35 000 plus \$3 500 GST**. At the end of March 2016 it is anticipated that \$6 500 will be owed to creditors.
- Cost of Sales is expected to be **\$20 000** and, based on the experience of similar firms, Stock Loss is expected to be **\$300**.

- The following expenses will be incurred during March
 - wages \$8 000
 - advertising 1 300 (plus \$130 GST)
 - depreciation of office equipment 100
- Rent for the next six months will be paid on 1 March 2016: \$9 000 plus \$900 GST
- New office equipment worth \$5 000 (plus \$500 GST) will be purchased on 1 March 2016 using cash.
- Cash drawings will be \$1 000. Drawings of stock is expected to be \$600.
- On 31 March 2016, \$10 000 will be borrowed from AXC Bank to purchase a new vehicle. Beginning in April 2016, \$500 will be paid off the principal each month. The vehicle itself will not be purchased until April 2016.

The budgeted Balance Sheet as at 31 March 2016 is shown in Figure 17.8.

Figure 17.8 Budgeted Balance Sheet

DENZEL WASHING MACHINES					
Budgeted Balance Sheet as at 31 March 2016					
Current Assets	\$	\$	Current Liabilities	\$	\$
Bank ¹	19 570		Creditors Control	6 500	
Stock Control ²	14 100		Loan – AXC Bank ⁶	6 000	12 500
Debtors Control ³	6 600				
Prepaid Rent ⁴	7 500		Non-Current Liabilities		
GST Clearing ⁵	1 030	48 800	Loan – AXC Bank ⁶		4 000
Non-Current Assets			Owner's Equity		
Office Equipment	5 000		Capital – Denzel	30 000	
Less Accumulated Depreciation	100	4 900	+ Net Profit ⁷	8 800	
				38 800	
			Less Drawings ⁸	1 600	37 200
Total Assets		53 700	Total Equities		53 700

Note the following in Figure 17.8.

- | | | |
|---|-----------------|----------------------------------------------------------------------------------------------------|
| 1 | Bank | Cash balance at end (see Budgeted Cash Flow Statement – Figure 17.2 – Bank Balance at end) |
| 2 | Stock Control | See the following page |
| 3 | Debtors Control | Credit Sales including (\$17 600) less Receipts from Debtors (\$11 000) |
| 4 | Prepaid rent | Prepaid rent (\$9 000) less rent expense (\$1 500) |
| 5 | GST Clearing | See the following page |

- | | | |
|---|-----------------|------------------------------------------------------------|
| 6 | Loan – AXC Bank | Repayable \$500 per month (12 x \$500 = CL; remainder NCL) |
| 7 | Net Profit | See Budgeted Income Statement – Figure 17.7 |
| 8 | Drawings | Cash drawings (\$1 000) plus drawings of stock (\$600) |

It is worth considering in detail how two of these items in the budgeted Balance Sheet – **Stock Control** and **GST Clearing** – were calculated. Given our knowledge of double-entry accounting, we will express the calculation in the form of a ledger account.

Figure 17.9 Reconstructed ledger accounts

Stock Control (A)

Date	Cross-reference	Amount	Date	Cross-reference	Amount
March 1	Balance	Nil	March 31	Cost of Sales	20 000
31	Creditors Control	35 000		Drawings	600
				Stock Loss	300
				Balance	14 100
		35 000			35 000
April 1	Balance	14 100			

GST Clearing (A/L)

Date	Cross-reference	Amount	DCate	Cross-reference	Amount
March 31	Bank	1 530	March 1	Balance	Nil
	Creditors Control	3 500	31	Bank	2 400
				Debtors Control	1 600
				Balance	1 030
		5 030			5 030
April 1	Balance	1 030			

The debit balance in this account means GST Clearing is an asset: a resource controlled by the business from which future economic benefits will flow (the refund owed to the business by the ATO). This has occurred because the business has just started, so it has purchased more stock than it has sold, and purchased a number of assets, such as office equipment and prepaid rent. Thus, the GST on its purchases (\$1 530 + \$3 500) is greater than the GST on its sales (\$2 400 + \$1 600).

Uses of the Budgeted Balance Sheet

The Budgeted Balance Sheet can be used as a *planning* document. By detailing the expected carrying value of non-current assets at some time in the future, it helps the owner prepare for their replacement. When used in conjunction with the Budgeted Cash Flow Statement, it can also be used to plan for the repayment of loans, and to set the level for drawings for the coming period.

In addition, it can assist *decision-making* by setting a benchmark for indicators that assess liquidity and stability. Specifically, it will allow the owner to calculate the Budgeted Working Capital Ratio, which can be used to assess liquidity; and the Debt Ratio, which can be used to assess stability. (These ratios are covered in detail in Chapter 19.)

REVIEW QUESTIONS 17.7

- 1 **State** three items reported in the Budgeted Balance Sheet that are affected by the transactions reported in the:
 - Budgeted Cash Flow Statement
 - Budgeted Income Statement.
- 2 **Explain** how the Budgeted Balance Sheet can be used to assist planning.
- 3 **Explain** how the Budgeted Balance Sheet can be used to assist decision-making.

STUDY TIP

To select which account to reconstruct, think of the transaction that is missing: it will appear in two ledger accounts. Then choose the account for which you have the best information.

17.8 ACCOUNT RECONSTRUCTION

The preceding example illustrated how ledger accounts can be used to calculate closing balances for the Budgeted Balance Sheet. This is not the only use of ledger accounts in the budgeting process. If we already know the closing balance, we can work backwards to calculate other figures that may be necessary to complete the Budgeted Cash Flow Statement, or the Budgeted Income Statement.

Where only some information is known, we can use our knowledge of ledger accounts and double-entry accounting to calculate missing or unknown figures by reconstructing the relevant ledger account. Reconstructing a ledger account involves three steps:

- 1 **Identify** the entries we would expect to see in a particular ledger account.
- 2 **Match** these entries with figures that are known.
- 3 **Complete** the ledger account to calculate the figures that are not known.

EXAMPLE

On 1 July 2015, Kings Sportswear had debtors of \$12 000. During the month of July 2015, Credit Sales were \$88 000 including GST, and Sales Returns were \$1 200 plus GST. Discount Expense amounted to \$400. On 16 July 2016, a Bad Debt for \$900 was written off. At 31 July 2016, debtors owed \$15 000.

The data above is sufficient to prepare the Budgeted Income Statement as Credit Sales is known (\$80 000), and the Budgeted Balance Sheet can be prepared as Debtors at the end is known (\$15 000). However, the Budgeted Cash Flow Statement *cannot* be prepared, as **Receipts from Debtors** is *unknown*. We do not have sufficient information to prepare a Schedule of Receipts from Debtors, but we can reconstruct the Debtors Control account.

Step 1: identify the entries we would expect to see

Including every transaction this course has covered so far, a complete Debtors Control account, excluding amounts, would show:

Figure 17.10 Debtors Control template

Debtors Control (A)

Date	Cross-reference	Amount	Date	Cross-reference	Amount
July 1	Balance		July 31	Bank/	
31	Sales/GST Clearing			Discount Expense	
				Sales Returns/GST Clearing	
				Bad Debts	
				Balance	
Aug. 1	Balance				

Keep in mind that although we are calculating **Receipts from Debtors**, it will be identified in the Debtors Control account by the cross-reference 'Bank'. Also note that the line 'Bank/Discount Expense' has been split across two lines. This is usually written on one line, because it is posted from the total of the Debtors Control column in the Cash Receipts Journal. However, this one amount represents the total by which debtors will decrease; that is, cash received plus any discount expense. For the purpose of the Budgeted Cash Flow Statement, we are only interested in the **cash received from debtors (Bank)** not the discount expense, so the two amounts have been identified on separate lines in the ledger account.

Step 2: match these entries with figures that are known

After entering the information that is known, the Debtors Control account would show:

Debtors Control (A)

Date	Cross-reference	Amount	Date	Cross-reference	Amount
July 1	Balance	12 000	July 31	Bank/	
31	Sales/GST Clearing	88 000		Discount Expense	400
				Sales Returns/GST Clearing	1 320
				Bad Debts	900
				Balance	15 000
Aug. 1	Balance	15 000			

The Sales returns figure was provided as \$1 200 *plus* GST, meaning the total figure to be recorded here is \$1 320 (\$1 200 plus \$120 GST).

Step 3: complete the ledger account to calculate the missing figure

By completing the account, we can determine the missing figure, which in this case is Receipts from Debtors.

Debtors Control (A)

Date	Cross-reference	Amount	Date	Cross-reference	Amount
July 1	Balance	12 000	July 31	Bank/	82 380
31	Sales/GST Clearing	88 000		Discount Expense	400
				Sales Returns/GST Clearing	1 320
				Bad Debts	900
				Balance	15 000
		100 000			100 000
Aug. 1	Balance	15 000			

STUDY TIP

Devise a code to remember the number of entries in each account. Debtors Control has two on the debit side, and four on the credit side. For example, you could call it 'the 2 by 4 account'.

STUDY TIP

This account is almost the opposite of debtors control, but it has no bad debts entry.

The total on the debit side equals \$100 000, so this must also be the total on the credit side. In order to make the credit entries total \$100 000, Receipts from Debtors must be \$82 380, which can now be reported in the Budgeted Cash Flow Statement.

The same approach could be used to reconstruct other ledger accounts:

Figure 17.11 Creditors Control template

Date	Cross-reference	Amount	Date	Cross-reference	Amount
	Bank/		Start	Balance	
	Discount Revenue				
	Stock Control/GST Clearing			Stock Control/GST Clearing	
End	Balance				
				Balance	

In the Creditors Control account, the Stock Control/GST Clearing entry on the credit side is credit purchases; the same entry on the debit side is purchase returns.

Figure 17.12 Stock Control template

Date	Cross-reference	Amount \$	Date	Cross reference	Amount \$
Start	Balance			Cost of Sales ⁴	
	Creditors Control ¹			Cost of Sales ⁵	
	Bank ²			Cost of Sales ⁶	
	Cost of Sales ³			Creditors Control ⁷	
				Advertising	
				Drawings	
				Stock Write-down	
	Stock Gain*		End	Stock Loss*	
				Balance	
	Balance				

Given the number of entries in the Stock Control account, it is worth clarifying a few:

Debit side

- 1 Credit purchases
- 2 Cash purchases
- 3 Sales returns (cost price)

Credit side

- 4 Cash Sales (cost price)
- 5 Credit Sales (cost price)
- 6 Prepaid Sales (cost price)
- 7 Purchase returns

* Stock loss or stock gain will be recorded, but not both

Note that although Cost of Sales may involve three entries in the Stock Control account, it would only be reported as a single figure in the Budgeted Income Statement, and hence may in some cases be provided as only one figure. Note also the links between the Creditors Control and Stock Control accounts relating to credit purchases and purchase returns.

Figure 17.13 GST Clearing template

GST Clearing (A/L)					
Date	Cross-reference	Amount	Date	Cross-reference	Amount
	Bank ¹		Start	Balance	
	Bank ²			Bank ⁶	
	Creditors Control ³			Debtors Control ⁷	
	Debtors Control ⁴			Creditors Control ⁸	
	Sundry Creditor ⁵				
End	Balance				
				Balance	

The entries in the GST Clearing account are:

Debit side		Credit side	
1	GST settlement	6	GST on Cash Sales
2	GST on cash purchases	7	GST on Credit Sales
3	GST on Credit Purchases	8	GST on purchase returns
4	GST on Sales Returns		
5	GST on credit purchase of NCA		

This example assumes a credit balance (GST liability) to begin with, so a GST settlement is also likely: in the case of a debit balance (GST asset) a GST refund would be expected. In terms of the Budgeted Cash Flow Statement, only the three bank entries (GST settlement, GST on cash purchases and GST on Cash Sales) would be reported.

Figure 17.14 Capital template

Capital (OE)					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
	Drawings		Start	Balance	
	P&L Summary			Bank	
End	Balance			NCA	
				P&L Summary	
				Balance	

The cross-reference 'P&L Summary' refers to the Net Profit or Net Loss for the period, so obviously only one of these entries will appear at any one time. If a profit is generated, it will appear on the credit side; if a loss is incurred, it will appear on the debit side.

Figure 17.15 Disposal of NCA template

Disposal of NCA					
Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
	NCA			Acc. Dep. of NCA	
	Profit on Disp. of NCA			Bank or Sundry Creditor	
				Loss on Disp. of NCA	

STUDY TIP

If you only know two of the big four figures, see if there is enough information to reconstruct a related account (for example, Stock Control and Creditors Control are linked); it may allow you to calculate the third figure so you can reconstruct the original account.

This list is by no means exhaustive; any ledger account could be reconstructed to calculate a missing figure, for any of the three general-purpose budgets.

The only restriction is we need to know three of the 'big four' pieces of information. For debtors and creditors, this means at least three of:

- opening balance
- closing balance
- Credit Sales/Credit Purchases
- Receipts from Debtors/Payments to Creditors.

For stock, it means three of:

- opening balance
- closing balance
- Cost of Sales
- purchases (cash or credit).

If we know only one or two of the big four, we have insufficient information to reconstruct the account.

REVIEW QUESTIONS 17.8

- 1 **State** the purpose of reconstructing a ledger account.
- 2 **List** the three steps involved in reconstructing a ledger account.
- 3 **Explain** when it would be more appropriate to reconstruct the Debtors Control account rather than prepare a Schedule of Receipts from Debtors.
- 4 **Show** the templates for the following ledger accounts:
 - Debtors Control
 - Creditors Control
 - Stock Control
 - GST Clearing
 - Capital
 - Disposal of NCA.

17.9 VARIANCE REPORTS: CASH AND PROFIT

A number of times in this chapter we have noted the benefit of budgets in terms of providing a benchmark for the assessment of actual performance. By comparing actual and budgeted figures, significant differences (and problems in particular) can be identified, allowing the owner to make decisions to improve the firm's performance. This comparison is facilitated by the preparation of a **variance report**.

A variance report compares actual and budgeted figures, highlighting any significant differences (which are known as variances), so that problems can be identified and corrected. It is prepared once the figures are available, but before the next budget.

In this course, we will prepare two variance reports:

- Cash Budget Variance Report
- Income Statement Variance Report.

Cash Budget Variance Report

A **Cash Budget Variance Report** compares actual and budgeted cash flows. In appearance, it is very similar to a Budgeted Cash Flow Statement, but it has additional columns for actual figures, and the calculation of the variance.

Figure 17.16 shows the Cash Budget Variance Report for Denzel Washing Machines for March 2016.

variance report

an accounting report that compares actual and budgeted figures, highlighting variances, so that problems can be identified and corrective action taken

Cash Budget Variance Report

an accounting report that compares actual and budgeted cash flows, highlighting variances

Figure 17.16 Cash Budget Variance Report

DENZEL WASHING MACHINES
Cash Budget Variance Report for March 2016

	Budget	Actual	Variance	F/U
CASH FLOW FROM OPERATING ACTIVITIES				
Cash Inflows				
Cash Sales	24 000	29 000	5 000	F
Receipts from Debtors	11 000	8 000	3 000	U
GST Received	2 400	2 900	500	F
Total Operating Inflows	37 400	39 900	2 500	F
Less Cash Outflows				
Payments to Creditors	32 000	30 000	2 000	F
Wages	8 000	8 600	600	U
Advertising	1 300	1 100	200	F
Prepaid Rent	9 000	9 000	–	–
GST Paid	1 530	1 610	80	U
Total Operating Outflows	51 830	50 310	1 520	F
Net Cash Flows from Operations	(14 430)	(10 410)	4 020	F
CASH FLOW FROM INVESTING ACTIVITIES				
Cash Inflows				
Nil				
Less Cash Outflows				
Office Equipment	5 000	5 000	–	–
Net Cash Flows from Investing Activities	(5 000)	(5 000)	–	–
CASH FLOW FROM FINANCING ACTIVITIES				
Cash Inflows				
Capital Contribution	30 000	30 000	–	–
Loan – AXC Bank	10 000	11 000	1 000	F
Total Financing Inflows	40 000	41 000	1 000	F
Less Cash Outflows				
Drawings	1 000	1 200	200	U
Net Cash Flows from Financing Activities	39 000	39 800	800	F
Net Increase (Decrease) in Cash Position	19 570	24 390	4 820	F
add Bank Balance at start	Nil	Nil	–	–
Bank Balance at end	19 570	24 390	4 820	F

STUDY TIP

Variance reports are also known as performance reports, as they assess the firm's performance in meeting its budget.

STUDY TIP

If there is no variance at all, then it is neither favourable nor unfavourable.

A **variance** is simply the difference between the budgeted figure and the 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 Loan – AXC Bank is reported as **favourable** because cash will increase more than expected. The fact that the liabilities will also increase does not affect its classification in the Cash Budget Variance Report. Similarly, Payments to Creditors is classified as **favourable**, even though it could mean the balance owed to creditors is higher than expected.

variance

the difference between an actual figure and a budgeted figure, expressed as 'favourable' or 'unfavourable'

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*.

Income Statement Variance Report

an accounting report that compares actual and budgeted revenues and expenses, and highlights variations

Uses of the Cash Budget Variance Report

It is possible that the variances revealed in the Cash Budget Variance Report are caused simply by poor budgeting. However, this does not mean the report is useless; it should be used in *planning* the next budget, so that it is more accurate.

Assuming the variances are not caused by poor estimates, then the Cash Budget Variance Report is a valuable *aid to decision-making*. The **unfavourable** variances should be investigated, and their cause identified. This will allow the owner to take corrective action. In our example, Denzel Washing Machines may be concerned at the **unfavourable** variance in Receipts from Debtors; does it indicate a decline in Credit Sales, poor collection policies or something else?

When using the report in this way, it is also important to consider the links between items. For instance, an **unfavourable** variance in Advertising may actually generate a **favourable** variance in Cash Sales, but a corresponding **unfavourable** variance in Wages.

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.

Variances in this report are classified as favourable or unfavourable depending on their effect on profit. In the Income Statement Variance Report, a variance is **favourable** (F) if it means profit will be higher than expected in the budget; a variance is **unfavourable** (U) if it means profit will be lower than expected in the budget.

Figure 17.17 *Income Statement Variance Report*

DENZEL WASHING MACHINES				
Income Statement Variance Report for March 2016				
	Budget	Actual	Variance	F/U
Revenue				
Cash Sales	24 000	29 000	5 000	F
Credit Sales	16 000	14 000	2 000	U
Total Revenue	40 000	43 000	3 000	F
Less Cost of Goods Sold				
Cost of Sales	20 000	19 000	1 000	F
Gross Profit	20 000	24 000	4 000	F
Less Stock Loss	300	900	600	U
Adjusted Gross Profit	19 700	23 100	3 400	F
Less Other Expenses				
Wages	8 000	8 600	600	U
Advertising	1 300	1 100	200	F
Depreciation of Office Equipment	100	100	–	–
Rent	1 500	1 500	–	–
Total Expenses	10 900	11 300	400	U
Net Profit	8 800	11 800	3 000	F



Uses of the Income Statement Variance Report

The Income Statement Variance Report can be used for exactly the same purposes as the Cash Budget Variance Report: as a *planning* document and to *aid decision-making*. The preceding report identifies that Sales overall has increased, so this may explain the **unfavourable** variances in Cost of Sales and Wages.

The **unfavourable** variance in Stock Loss is perhaps more problematic: it may be caused by poor stock management procedures, which may need to be improved. Without the budget providing the benchmark, and the variance report making the comparison, this problem may not have been identified.

REVIEW QUESTIONS 17.9

- 1 **State** what information is shown in a:
 - Cash Budget Variance Report
 - Income Statement Variance Report.
- 2 **Define** the term 'variance'.
- 3 **Explain** when a variance would be considered to be favourable if reported in the:
 - Cash Budget Variance Report
 - Income Statement Variance Report.
- 4 **Explain** how a variance report can be used to assist planning.
- 5 **Explain** how a variance report can be used to assist decision-making.

WHERE HAVE WE BEEN?

- Budgeting is the process of preparing reports that estimate or predict the financial consequences of likely future transactions.
- Budgets assist planning by predicting what is likely to occur in the future and aid decision-making by providing a benchmark or yardstick (a standard) against which actual performance can be measured.
- Budgeted cash and budgeted profit are not necessarily the same.
- Figures can be calculated by preparing Schedules (of Receipts from Debtors/ Payments to Creditors) or by reconstructing ledger accounts.
- Variance reports compare actual and budgeted figures, highlighting variances so that problems can be identified and corrected.
- A variance is the difference between the budgeted figure and the actual figure, and classified as favourable or unfavourable depending on its effect on bank or profit.

EXERCISES

EXERCISE 17.1 CASH BUDGET

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On 1 July 2016, Top Hats had \$2 700 in its bank account. It has provided the following list of expected transactions for July 2016:

- Cash Sales are expected to be \$12 000 plus GST. Credit Sales are expected to be \$5 100 plus GST, but only \$3 000 is expected to be collected in July 2016.
- All stock is sold at a 50% mark-up.
- Cash purchases of stock will be \$4 000 (plus GST).
- Drawings will consist of \$1 200 cash and \$300 worth of stock.
- The following expenses will be paid:

– advertising	\$ 2 100	(plus GST)
– wages	3 600	
– interest	230	
- \$400 wages will be owing at the end of July 2016.
- Yearly rent will be paid on 1 July 2016, costing \$8 400 plus GST.
- The monthly loan repayment of \$1 600 will be made on 14 July 2016.
- New shop fittings worth \$3 850 (including GST) will be purchased for cash from Fitts Best.

Required

- a **Calculate** budgeted GST paid for July 2016.
- * b **Prepare** a Budgeted Cash Flow Statement for Top Hats for July 2016.
- c **Suggest** two actions the owner may take to plan for the outcome predicted in the Budgeted Cash Flow Statement.



EXERCISE 17.2



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CASH BUDGET: CONSECUTIVE PERIODS

Lockhardt Locks has provided the following information regarding its expected activities for January to March 2016:

- As at 1 January 2016, the business had \$3 400 in the bank.
- Sales are made on cash-only terms, and are budgeted to be \$26 000 in January, \$27 000 in February and \$25 000 in March. GST will also be received on these amounts.
- Stock is purchased on credit, with creditors paid the month following purchase. Credit purchases for December 2015 were \$12 000, but are expected to rise to \$13 000 in January, and \$13 500 in February and March. GST will also be owing on these amounts.
- The following expenses will be paid each month:

– wages	4 000	
– advertising	1 300	(plus GST)
– interest	150	
- Rent for the next six months will be paid during January – \$9 900 inclusive of GST.
- In January 2016, the business will sell an old vehicle for \$1 900 cash, and in February 2016 will pay cash for a new vehicle, which will cost \$21 000 plus GST.
- A GST settlement is due in January 2016 – \$1 600.
- Monthly cash drawings will be \$2 000.
- A repayment on the principal of a loan is due on 21 January 2016 – \$1 500.
- The owner plans to contribute \$15 000 cash and some office equipment worth \$4 200 in March 2016.

Required

- a Calculate budgeted GST paid for January, February and March 2016.
- * b Prepare a Budgeted Cash Flow Statement for Lockhardt Locks for January, February and March 2016.
- c Suggest two actions the owner might take to address any problems revealed by your answer to part 'b'.
- d Explain one benefit of preparing a Budgeted Cash Flow Statement for consecutive periods.

EXERCISE 17.3



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SCHEDULE OF RECEIPTS FROM DEBTORS

Bats 'n' Balls has provided the following budgeted information relating to its credit sales during 2016:

Month	Credit Sales
August (actual)	8 000
September (actual)	9 000
October (budgeted)	10 000
November (budgeted)	11 000
December (budgeted)	12 000

GST will also be charged on these amounts. It is expected that 70% of debtors will pay in the month following the sale, while the remaining 30% will pay in the second month.

Required

- a **Suggest** one reason for the trend in Sales from August to December 2016.
- b **Prepare** a Schedule of Receipts from Debtors for October, November and December 2016.
- c Referring to the information provided, **explain** one reason why budgeted Net Profit and Budgeted Net Increase (Decrease) in Cash Position are likely to be different for December 2016.

EXERCISE 17.4
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SCHEDULE OF RECEIPTS FROM DEBTORS

Jazzy Jackets has provided the following information to aid in the preparation of its Budgeted Cash Flow Statement for April, May and June 2016:

Month	Credit Sales	Cash Sales
January	50 000	43 000
February	40 000	32 000
March	45 000	35 000
April	35 000	27 000
May	30 000	32 000
June	20 000	26 000

These amounts do not include GST

It is expected that 50% of debtors will pay in the month of sale, 30% of debtors will pay in the month following the sale, and the remaining 20% will pay in the second month following the sale.

Required

- a **Calculate** budgeted Receipts from Debtors for April, May and June 2016.
- b **Prepare** an extract of the Budgeted Cash Flow Statement for Jazzy Jackets that shows Operating cash inflows for April, May and June 2016.
- c **Explain** how the preparation of a Budgeted Cash Flow Statement can assist planning.

EXERCISE 17.5
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SCHEDULES AND THE BUDGETED CASH FLOW STATEMENT

On 1 January 2016, Betty's Bags commenced Operations. Projected purchases and Sales for the first four months are:

Month	Credit purchases	Credit Sales	Cash Sales
January	12 000	20 000	30 000
February	13 000	25 000	34 000
March	14 000	28 000	36 000

Additional information:

- The amounts above do **not** include GST.
- Betty's Bags allows a 5% discount if debtors pay within the month that the sale occurred. It is expected that 40% of the Sales will be collected within the discount period, 35% by the end of the month after purchase, 20% in the following month, and that 5% will be uncollectable.

- Of credit purchases, 50% are paid in the month of purchase, with the remainder paid in the following month.
- Monthly expenses include advertising of \$2 500 (plus GST), wages of \$1 800 and depreciation on equipment of \$1 000. There are no prepaid or accrued expenses.
- Cash drawings will be \$3 000 per month.

Required

- a Calculate** budgeted Receipts from Debtors for January, February and March 2016.
- b Calculate** budgeted Payments to Creditors for January, February and March 2016.
- * **c Prepare** an extract of the Budgeted Cash Flow Statement for Betty's Bags that shows the Operating activities for January, February and March 2016.
- d** Referring to your answer to part 'c', **explain** your treatment of depreciation of equipment.
- e Explain** how cash drawings would be reported in the Budgeted Cash Flow Statement.
- f Explain** how the preparation of a Budgeted Cash Flow Statement can assist decision-making.

EXERCISE 17.6

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BUDGETED REPORTS

Dana's Detergents will begin trading Operations on 1 May 2016, and has provided the following estimates for its first month of Operations:

- The owner will make a capital contribution of \$20 000 to commence Operations.
- Shelving worth \$6 000 (plus GST) will be purchased on credit from Jancke Fittings on 1 May 2016. Before the end of May 2016, \$400 will be paid to the creditor.
- Cash Sales are estimated to be \$15 000 plus GST.
- Credit Sales are estimated to be \$13 200 including GST. Debtors owing at the end of May 2016 is expected to be \$3 500.
- All stock will be purchased on credit. Purchases for May 2016 are expected to be \$40 000 plus GST. At the end of May 2016, it is anticipated that \$12 000 will be owed to creditors.
- Cost of Sales is expected to be \$18 000 and, based on industry averages, Stock Loss is expected to be \$500.
- Six months' advertising will be paid in advance on 1 May 2016, at a cost of \$1 200 plus GST. There will be no other prepayments or accruals.
- The following expenses will be incurred during May 2016:

– wages	\$2 000	
– depreciation of shelving	50	
– rent	\$1 000	(plus GST)
- On 31 May 2016, a loan for \$35 000 will be received from ZNA Bank. The loan will be used to purchase a van in June 2016. Each month, \$500 will be paid off the principal, starting on 30 June 2016.
- Cash drawings will be \$1 900. Drawings of stock is expected to be \$300.

Required

- * **a Prepare** a Budgeted Cash Flow Statement for Dana's Detergents for May 2016.
- * **b Prepare** a Budgeted Income Statement for Dana's Detergents for May 2016.
- c Explain** two reasons why the budgeted Net Increase in Cash Position is much larger than the budgeted Net Profit for May 2016.
- * **d Show** how the Stock Control and GST Clearing accounts would appear in the General Ledger as at 31 May 2016.
- e Prepare** a Budgeted Balance Sheet for Dana's Detergents as at 31 May 2016.
- * **f Explain** how a Budgeted Balance Sheet can assist planning.

EXERCISE 17.7

BUDGETED REPORTS

On 30 June 2016, the Balance Sheet of Jacuzzi Joint showed the following:

JACUZZI JOINT

Balance Sheet as at 30 June 2016

Current Assets	\$	\$	Current Liabilities	\$	\$
Bank	4 000		Creditors Control	9 900	
Stock Control	28 000		GST Clearing	200	
Debtors Control	7 480		Accrued Interest Expense	300	
Prepaid Rent	6 000	45 480	Sundry Creditor – Wilks	750	11 150
Non-Current Assets			Non-Current Liabilities		
Office Equipment	24 000		Loan – APS Finance		30 000
Less Accumulated Depreciation	7 200	16 800	Owner's Equity		
			Capital – Jacqui		21 130
Total Assets		\$62 280	Total Equities		\$62 280

The owner has provided the following information to assist in the preparation of budgeted reports for July 2016:

Month	Credit purchases	Credit Sales	Cash Sales
June	9 000	17 000	19 000
July	11 000	18 000	22 000

These amounts do **not** include GST.

- All stock is marked up 100%.
- The owner expects a Stock Loss of \$300 for July 2016.
- Credit Sales are received 60% in the month of the sale and 40% in the month after the sale.
- All purchases are made on credit. Amounts owing to creditors are paid in the month following purchase to earn a 5% discount.
- Six months' rent was prepaid on 1 May 2016.
- Wages paid during July 2016 will be \$7 500, but \$800 wages is expected to be owing at the end of July 2016.
- Depreciation of office equipment for July 2016 will be \$300.
- Electricity expense will be \$200 plus GST. This amount will be paid in full during July 2016.
- In July 2016, \$450 will be paid to cover the interest expense for May, June and July 2016.
- During July 2016, new office equipment costing \$13 200 (including GST) will be purchased on credit from Phelps Co. A payment of \$8 000 will be made to Phelps Co. before the end of July 2016.
- On 31 July 2016, the owner plans to contribute \$10 000 cash and her own vehicle worth \$23 000. Drawings of cash by the owner will be \$3 100.
- The amount owing to Sundry Creditor – Wilks will be paid in full.
- The Loan – APS Finance is an interest only loan due in full in October 2018.

Required

- a **Calculate** budgeted Receipts from Debtors for July 2016.
- b **Calculate** budgeted Payments to Creditors for July 2016.
- * c **Prepare** a Budgeted Cash Flow Statement for Jacuzzi Joint for July 2016.
- * d **Prepare** a Budgeted Income Statement for Jacuzzi Joint for July 2016.
- e **Explain** two reasons why the Net Cash Flows from Operations is budgeted to be greater than the Net Profit for July 2016.
- * f **Show** how the Stock Control and GST Clearing accounts would appear in the General Ledger as at 31 July 2016.
- * g **Prepare** a Budgeted Balance Sheet for Jacuzzi Joint as at 31 July 2016.

EXERCISE 17.8

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ACCOUNT RECONSTRUCTION

Moving Boxes sells cardboard boxes for people who are moving house, and has provided the following information relating to their Debtors Control account:

- Balance as at 1 July 2015 \$ 50 000
- Budgeted balance as at 30 June 2016 40 000
- Budgeted Credit Sales for the year ended 30 June 2016 110 000 including GST
- Budgeted Discount Expense 4 500

Required

- a For each item above, **identify** the budgeted report in which the item will appear.
- b **Reconstruct** the Debtors Control account to determine budgeted Receipts from Debtors for the year ended 30 June 2016.
- c **Explain** the importance of budgeted Sales in the budgeting process.

EXERCISE 17.9

page 387

ACCOUNT RECONSTRUCTION

Bully Hides sells leather products and has provided the following information relating to its expected transactions for 2016:

- actual balances as at 1 January 2016
 - Debtors Control \$35 000
 - Creditors Control 13 000
- budgeted balances as at 31 December 2016
 - Debtors Control \$45 000
 - Creditors Control 10 500
- from the Budgeted Income Statement
 - Cash Sales* \$70 000
 - Credit Sales* 61 000
 - Sales Returns* 3 000
 - Discount Revenue 1 500
 - Bad Debts 4 000
 - Discount Expense 2 300
- other information
 - cash purchases* 30 000
 - credit purchases* 45 000

* Figures do not include GST.

Required

- a Reconstruct** the Debtors Control account to determine budgeted Receipts from Debtors for 2016.
- b Prepare** an extract from the Budgeted Cash Flow Statement for Bully Hides for 2016 that shows Operating cash inflows.
- c Reconstruct** the Creditors Control account to determine budgeted Payments to Creditors for 2016.

EXERCISE 17.10

ACCOUNT RECONSTRUCTION

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Tony's Tyre Emporium has provided the following information relating to its expected transactions for the year ended 30 June 2016:

- balances as at 1 July 2015
 - Stock Control \$31 000
 - Creditors Control 16 000
- from the Budgeted Income Statement
 - Sales* 70 000
 - Sales Returns* 1 200
 - Stock Gain 4 000
 - Discount Revenue 2 000
- expected balances as at 30 June 2016
 - Stock Control 26 000
 - Creditors Control 15 000
- other information
 - cash purchases* 10 000
 - drawings of stock 15 000 (includes \$12 000 cash and \$3 000 stock)

* Figures do not include GST.

All stock is sold at a 100% mark-up.

Required

- a Reconstruct** the Stock Control account to determine budgeted credit purchases for the year ended 30 June 2016.
- b Reconstruct** the Creditors Control account to determine budgeted Payments to Creditors for the year ended 30 June 2016.



EXERCISE 17.11



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CASH BUDGET VARIANCE REPORT

Simply Stunning sells hair care products to hairdressers in Melbourne and has provided the following Cash Budget Variance Report for the year ended 30 June 2016:

SIMPLY STUNNING

Cash Budget Variance Report for the year ended 30 June 2016

	Budgeted	Actual	Variance	Fav./ Unfav.
CASH FLOW FROM OPERATING ACTIVITIES				
Receipts from Debtors	99 200	89 200		
Cash Sales	85 000	94 000		
GST Received	8 500	9 400		
Payments to Creditors	(115 000)	(136 000)		
Prepaid Rent	(12 000)	(15 000)		
GST Paid	(1 440)	(1 590)		
Wages	(30 000)	(26 000)		
Advertising	(2 400)	(900)		
Interest Expense	(2 700)	(3 100)		
GST Settlement	(3 700)	(4 600)		
Net Cash Flows from Operations	25 460	5 410		
CASH FLOW FROM INVESTING ACTIVITIES				
Proceeds on Sale of Equipment	5 000	3 000		
Shelving	–	(12 000)		
Net Cash Flows from Investing Activities	5 000	(9 000)		
CASH FLOW FROM FINANCING ACTIVITIES				
Capital Contribution	–	20 000		
Loan	(5 000)	–		
Drawings	(36 000)	(40 000)		
Net Cash Flows from Financing Activities	(41 000)	(20 000)		
Net Increase (Decrease) in Cash Position	(10 540)	(23 590)		
Add Bank Balance at start	8 500	8 500	–	–
Bank Balance at end	(2 040)	(15 090)		

Sophie had organised an overdraft limit with the bank of \$6 000.

Required

- Explain** one benefit of preparing a Cash Budget Variance Report.
- Complete** the Cash Budget Variance Report for Simply Stunning for the year ended 30 June 2016.
- State** whether the variance in Payments to Creditors is favourable or unfavourable. **Justify** your answer.
- Suggest** one possible reason for the Capital Contribution.

- e **Explain** the effect on the actual closing bank balance of the variances in Investing activities.
- f **Identify** two assets that will differ as at 30 June 2016 as a consequence of the variances in the Cash Budget Variance Report. **Justify** your answer.

EXERCISE 17.12

CASH VARIANCE REPORT

 page 391

Bright Lights has provided the following partially completed Cash Budget Variance Report for the year ended 30 June 2016:

BRIGHT LIGHTS

Cash Budget Variance Report (extract) for the year ended 30 June 2016

	Budgeted	Actual	Variance	Fav./ Unfav.
CASH FLOW FROM OPERATING ACTIVITIES				
Receipts from Debtors	100 000	105 000		
Payments to Creditors	(45 000)		5 000	F
Interest Expense		(800)	300	U
GST Paid	(6 000)	(4 500)		
Prepaid Rent	(12 000)			
CASH FLOW FROM INVESTING ACTIVITIES				
Sale of Shelving		5 000	1 000	U
Van	(17 000)	(23 000)		
CASH FLOW FROM FINANCING ACTIVITIES				
Loan	7 500		2 500	F
Drawings	(25 000)	(15 000)		

Additional information:

- The \$12 000 budgeted for Prepaid Rent failed to take into account \$300 in prepaid rent at 1 July 2015 and prepaid rent of \$500 at 30 June 2016.
- The owner has argued that the Loan variance is unfavourable because it increases the firm's liabilities.

Required

- a **Calculate** actual Prepaid Rent for the year ending 30 June 2016.
- b **Complete** the Cash Budget Variance Report (extract) for Bright Lights for the year ended 30 June 2016.
- c **Explain** whether the Loan variance is favourable or unfavourable.
- d Given that Credit Sales decreased, **suggest** one possible reason for the variance in Receipts from Debtors.
- e **Explain** one possible effect of Financing activities on the firm's actual Net Profit for the year ended 30 June 2016.

**EXERCISE 17.13**
 page 393
INCOME STATEMENT VARIANCE REPORT

Toot and Twang sells musical instruments from a shop in Melton, and has provided the following Income Statement Variance Report for the year ended 30 July 2016:

TOOT AND TWANG**Income Statement Variance Report for the year ended 30 June 2016**

	Budgeted	Actual	Variance	Fav./ Unfav.
Revenue				
Sales	120 000	110 000		
Less Cost of Goods Sold				
Cost of Sales	70 000	55 000		
Gross Profit	50 000	55 000		
Add Stock Gain/(Loss)	1 500	(4 200)		
Adjusted Gross Profit	51 500	50 800		
Add Other Revenue				
Profit on Disposal of Vehicle	1 500	6 500		
	53 000	57 300		
Less Other Expenses				
Wages	18 000	19 000		
Rent	12 000	14 000		
Depreciation of Vehicles	2 300	1 600		
Interest Expense	1 400	1 800		
Net Profit/(Loss)	19 300	20 900		

Required

- a Explain** the importance of variance analysis in the budgeting process.
- b Complete** the Income Statement Variance Report for Toot and Twang for the year ended 30 July 2016.
- c Explain** whether the variance in Cost of Sales is favourable or unfavourable.
- d Suggest** one possible reason for the variance in Depreciation of Vehicles.
- e Explain** why the owner should be concerned about the firm's profit performance when compared to the budget.

EXERCISE 17.14 page 395**INCOME STATEMENT VARIANCE REPORT**

Blades, which sells kitchen knives and cutting utensils, has provided the following Income Statement Variance Report for the year ended 30 June 2016:

BLADES**Income Statement Variance Report for the year ended 30 June 2016**

	Budgeted	Actual	Variance	Fav./Unfav.
Revenue				
Sales	105 000	90 000		
Sales Returns	8 500		4 500	F
	96 500			
Less Cost of Goods Sold				
Cost of Sales	48 000	54 000		
Cartage Inwards	3 000	1 000		
Gross Profit	45 500			
Less Stock Loss	1 800	2 300		
Adjusted Gross Profit	43 700			
Less Other Expenses				
Wages	28 000		5000	U
Rent	15 000	18 000		
Depreciation – Equipment	1 400	2 200		
Interest		800	300	F
Net Profit/(Loss)				

The business had an overdraft of \$4 000 as at 1 July 2015.

Required

- Complete** the Income Statement Variance Report for Blades for the year ended 30 June 2016.
- Suggest** two possible reasons for the variance in Sales Returns.
- Suggest** one possible reason for the variance in Interest Expense.
- Explain** the implications of the variance in Gross Profit.

EXERCISE 17.15 page 396**ACCOUNT RECONSTRUCTION AND BUDGETED REPORTS**

Seth Bayes is the proprietor of Bayes Surfboards, which sells surf gear on the Victorian west coast. He has provided the following information to assist in the preparation of budgets for 2016:

BAYES SURFBOARDS

Assets and equities as at 31 December 2015

Assets	\$	Equities	\$
Debtors Control	17 600	Bank	5 000
GST Clearing	3 000	Accrued Wages	700
Stock Control	62 400	Creditors Control	41 800
Shop Fittings	52 000	Capital – Bayes	69 500
Less Accumulated Depreciation	18 000		
Total Assets	\$117 000	Total Equities	\$117 000

Expected transactions for 2016:

- Credit Sales are expected to be \$300 000 and will include \$20 000 for December 2016. GST will also be charged on these amounts. Debtors usually pay in the month following sale to take advantage of a 2% settlement discount.
- Credit purchases are budgeted to be \$140 000 (plus GST) and, as at 31 December 2016, \$37 400 is expected to be owing to creditors.
- All stock is sold at a 100% mark-up.
- Other estimates for 2016 include:

– occupancy expenses	\$ 47 000	plus GST
– office expenses	39 000	plus GST
– wages expense	35 000	
– depreciation expense	3 400	
– cash drawings	12 000	
– stock loss	2 500	
- A GST refund of \$3 000 is due from the ATO in 2016.
- A new advertising contract will be signed and paid on 30 September 2016, with the payment of \$1 980 (including GST) covering 12 months starting on 1 October 2016. Aside from the advertising, there will be no other prepayments or accruals as at 31 December 2016.
- Early in December 2016, Seth wants to borrow \$10 000 from AX Bank to finance the purchase of new shop fittings early in 2017. The loan will be repaid in full in December 2017, but interest of \$600 due on 31 December 2016 will not be paid until the next working day on 1 January 2017.
- In November 2016, some old shop fittings will be sold to a local supermarket at a profit of \$300. The shop fittings were originally worth \$4 800, but by the sale date will have accumulated depreciation of \$4 400.

Required

- a Calculate** the cash proceeds from the disposal of the shop fittings.
- b Calculate** budgeted Receipts from Debtors for 2016.
- c Calculate** budgeted Payments to Creditors for 2016.
- d Calculate** budgeted GST paid for 2016.
- * **e Prepare** a Budgeted Cash Flow Statement for Bayes Surfboards for 2016.
- f Explain** one advantage of preparing budgets more than once a year.
- * **g Show** how the Stock Control and GST Clearing accounts would appear in the General Ledger as at 31 December 2016.
- * **h Prepare** an extract of the Budgeted Balance Sheet of Bayes Surfboards as at 31 December 2016 that shows Current Assets and Current Liabilities. (A full Balance Sheet is **not** required.)
- i Explain** how a Budgeted Balance Sheet can be used to assist planning.

EXERCISE 17.16

ACCOUNT RECONSTRUCTION AND BUDGETED REPORTS

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Poppy Marcel is the proprietor of Digital Masters, which sells digital cameras from a shop in Torquay. She has requested some assistance in preparing the budgets and has provided the following information:

DIGITAL MASTERS

Account balances as at 30 June 2015

Debit	\$	Credit	\$
Prepaid Photocopier Rent	1 000	GST Clearing	3 400
Debtors Control	16 000	Creditors Control	13 700
Bank	1 200	Acc. Depreciation – Shop Fittings	21 600
Stock Control	35 000	Accrued Wages	1 300
Shop Fittings	48 000	Capital – Marcel	61 200
	\$101 200		\$101 200

Anticipated transactions for the year ended 30 June 2016:

- Cash Sales are expected to be \$42 000 plus GST and Credit Sales of \$180 000 plus GST. Debtors as at 30 June 2016 are expected to be \$30 800.
- All stock is purchased on credit and sold at a 50% mark-up.
- Other estimates for the year include

– purchases of stock	121 000	plus GST
– sales returns	6 000	plus GST
– discount expense	3 700	
– wage expense incurred	29 000	
– depreciation – shop fittings	5 300	
– cash drawings	23 000	
– stock loss	1 900	
- Poppy is currently renting a photocopier at \$550 (including GST) per month, payable 12 months in advance. Poppy has received notification that the rent will increase to \$660 (including GST) per month commencing with the next payment due on 1 September 2015.
- On 1 April 2016, the business will invest \$6 000 in a three-year term deposit. Interest is earned at 8% per annum, payable on 31 March each year.
- Estimated balances as at 30 June 2016 include

– Stock Control	\$10 100	
– Bank Overdraft	2 800	
– GST Clearing	12 280	CR

Required

- a Calculate budgeted rent expense for the year ended 30 June 2016.
- b Calculate budgeted interest revenue for the year ended 30 June 2016.
- * c Prepare a Budgeted Income Statement for Digital Masters for the year ended 30 June 2016.
- d Explain how the preparation of a Budgeted Income Statement could assist with planning to achieve an improved Gross Profit.
- * e Prepare an extract of the Budgeted Balance Sheet of Digital Masters as at 30 June 2016 that shows Current and Non-current Assets. (A full Balance Sheet is **not** required.)
- f Explain one benefit of preparing a Budgeted Balance Sheet.

Where are we headed?

After completing this chapter, you should be able to:

- **define** 'profitability', and **distinguish** between profit and profitability
- **analyse** profitability using trends, variances, benchmarks and profitability indicators
- **calculate** and **explain** various profitability indicators
- **explain** the relationships between various profitability indicators
- **analyse** and **evaluate** profitability using non-financial indicators
- **suggest** strategies to improve profitability.

Course advice:

The VCE Accounting Study Design states that students will not be required to calculate financial indicators in the examination. However, calculations are included in this text as an essential mechanism for understanding the information these indicators present.

CHAPTER 18

EVALUATING PROFITABILITY

KEY TERMS

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

- analysing
- interpreting
- profitability
- liquidity
- efficiency
- stability
- trend
- horizontal analysis
- variance
- benchmark
- profitability indicators
- Return on Owner's Investment (ROI)
- Return on Assets (ROA)
- Asset Turnover (ATO)
- expense control
- Net Profit Margin (NPM)
- Gross Profit Margin (GPM)
- vertical analysis
- non-financial information.

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

18.1 ANALYSIS AND INTERPRETATION OF PROFITABILITY

To this point we have devoted most of our time to the first three phases of the accounting process: gathering source documents, recording the data so it is classified and summarised, and reporting the information that is then generated. This chapter concentrates on **analysing** and **interpreting** the information contained in the reports in order to provide advice to help the owner make more informed decisions.

In accounting terms, analysing involves examining the reports in great detail to *identify changes or differences in performance*, while interpreting involves examining the relationships between the items in the reports in order to explain the *cause and effect of those changes or differences*. Once the causes and effects of changes or differences in performance are understood, a course of action can be recommended to the owner to assist decision-making.

Any analysis of business performance must include an assessment of:

- **profitability** – the ability of the business to earn profit, measured by comparing its profit against a base, such as Sales, assets or owner's equity
- **liquidity** – the ability of the business to meet its short-term debts as they fall due
- **efficiency** – the ability of the business to manage its assets and liabilities
- **stability** – the ability of the business to meet its debts and continue its Operations in the long term.

Clearly, business survival depends on having both satisfactory profitability and satisfactory liquidity: a profitable business will still fail if it cannot pay its debts.

This chapter concentrates on an assessment of profitability, while liquidity is addressed in Chapter 19. In the process, the firm's efficiency and stability will also be assessed.

Assessing profitability

At its most elemental, a firm's ability to earn profit is dependent on its ability to:

- earn revenue and
- control expenses.

Consequently, any assessment of profitability must examine the firm's performance in these two areas, with an analysis of the Income Statement a logical starting point. However, an assessment of profitability must not concentrate on profit (in dollar terms) alone. Many factors may affect a firm's ability to earn revenue and control its expenses, and the significance of these factors must be considered when assessing profitability. The size of the business (in terms of the assets it controls), the size of the investment by the owner, and the level of Sales are all significant in determining how much profit a business is *able* to earn.

For example, a firm with assets of \$750 000 under its control is likely to generate a much larger profit (in dollar terms) than a firm with only \$50 000 worth of assets under its control. Comparing these firms on the basis of profit alone will not tell us which one is more *able* to use its assets to earn profit, it will simply tell us that one firm had more assets to use. However, if the profit was expressed *per dollar of assets*, a comparison of the ability of each firm to earn profit if it had the *same asset base* would be possible, showing which was more profitable.

Profitability is more than assessing the firm's profit; it is about assessing the firm's *capacity* or *ability* to earn profit, assuming all these other factors were equal. Expressing profit *relative to another measure* allows for comparisons between different firms, and different periods.

Obviously the *level* of profit is an important measure of performance, and an assessment of profitability may begin with an examination of profit, and the revenues and expenses by which it was derived. But it must then go further by comparing that profit against a base of some sort to examine the firm's ability to use its Sales, its assets, or the owner's contribution to earn profit. In this sense profitability is a *relative measure*.

REVIEW QUESTIONS 18.1

- 1 **Explain** the relationship between analysing and interpreting accounting reports.
- 2 **Define** the following terms:
 - profitability
 - liquidity
 - efficiency
 - stability.
- 3 **State** the two basic factors on which the ability to earn a profit is dependent.
- 4 **Explain** how profitability can be assessed between different firms.

18.2 TOOLS FOR ASSESSING PROFITABILITY

There are various tools available to assess profitability, including:

- trends
- variances
- benchmarks
- profitability indicators.

Trends

We will begin an analysis of profitability by analysing consecutive Income Statements to identify changes in revenues and expenses from one period to the next. Where changes over a number of periods form a pattern, this is known as a **trend**.

trend
the pattern formed by changes in an item over a number of periods

Clear View Windows has provided the following (summarised) Income Statements for the year ended 31 December:

CLEAR VIEW WINDOWS

Income Statement for the year ended 31 December

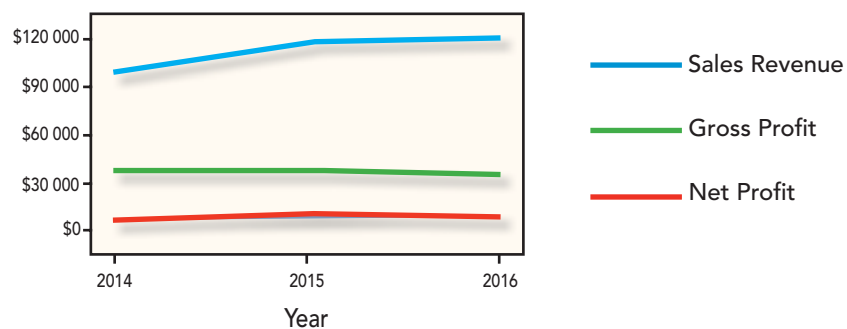
	2014	2015	2016
Sales	100 000	112 000	115 000
Less Cost of Goods Sold	62 000	72 800	78 200
Gross Profit	38 000	39 200	36 800
Less Stock Loss	700	600	500
Adjusted Gross Profit	37 300	38 600	36 300
Less Other Expenses	25 000	25 600	26 000
Net Profit	12 300	13 000	10 300

EXAMPLE

The reports show that **Sales** increased every year: first by \$12 000 from 2014 to 2015, then by a further \$3 000 in 2016. The trend in Sales is favourable: it is higher every year. The trend in Stock Loss is also favourable as it decreased every year and the fact that this has happened despite higher sales is particularly pleasing; perhaps stock control procedures were more effective. However, there is an unfavourable upward trend in Cost of Goods Sold and Other Expenses. As a consequence, a \$12 000 increase in Sales in 2015 resulted in an increase in Net Profit of only \$700, and **Net Profit** is actually lower in 2016 despite Sales being \$15 000 higher than it was in 2014.

In order to aid the *Understandability* of the accounting information, trends may be presented as line or bar graphs. This makes them easier to understand for users who have little or no accounting knowledge. Figure 18.1 shows a line graph showing **Sales Revenue**, **Gross Profit** and **Net Profit** for 2014 to 2016.

Figure 18.1 Sales Revenue, Gross Profit and Net Profit



The rising trend in **Sales** is clear, but the increasing gap between **Sales** and **Net Profit** is cause for concern.

In the previous example, both Sales and Cost of Goods Sold increased, but the fact that Gross Profit decreased in 2016 indicates that Cost of Goods Sold increased by more. We can reach this conclusion intuitively, but preparing a **horizontal analysis** will show the numerical proof. A horizontal analysis calculates the change in items from one period to the next, expressing the change in both dollar and percentage terms so that the relative size of the changes can be assessed. Using the information above, the horizontal analysis of the Income Statement would appear as is shown in Figure 18.2.

horizontal analysis

comparing reports from one period to the next, and identifying the increase or decrease in specific items in the report

Figure 18.2 Horizontal analysis of the Income Statement

	2014	2015	Increase/ Decrease	Difference \$	Difference %
Sales	100 000	112 000	Increase	12 000	12.0
Less Cost of Goods Sold	62 000	72 800	Increase	10 800	17.4
Gross Profit	38 000	39 200	Increase	1 200	3.2
Less Stock Loss	700	600	Decrease	100	14.3
Adjusted Gross Profit	37 300	38 600	Increase	1 300	3.5
Less Other Expenses	25 000	25 600	Increase	600	2.4
Net Profit	12 300	13 000	Increase	700	5.7

The percentage difference is calculated by dividing the *difference* (in dollar terms) by the previous year's figure; for example, **Sales**: $12\,000/100\,000 \times 100 = 12\%$.

The horizontal analysis shows that although **Sales** has **increased by 12%** in 2015, Cost of Goods Sold has actually increased by 17.4% (a *larger* increase), and this has led to **Gross Profit** only **increasing by 3.2%**, and **Net Profit** by only **5.7%**. Although revenue capacity has improved, expense control has worsened.

Variances

Trends highlight changes in revenues and expenses from one period to the next, but they don't allow the owner to assess whether they have met the firm's goals for that period. This assessment is performed using a **variance** report, which highlights the difference between actual and budgeted figures, so that problem areas can be identified and addressed (see Chapter 17). In this sense, these reports are invaluable tools for assessing profitability because they draw attention to areas in which performance has been below expectation.

Benchmarks

In terms of profit and profitability, it is impossible to say whether a result is satisfactory without reference to a **benchmark** of some sort. A benchmark is an acceptable standard against which the firm's actual performance can be assessed. There is no set level of profitability that is considered to be satisfactory, but a firm may compare its actual profit performance against:

- *Performance in previous periods.* This allows for the preparation of a horizontal analysis and identification of trends. Using this benchmark enables an assessment of whether profitability has *improved* or *worsened* from one period to the next.
- *Budgeted performance for the current year.* This allows for the preparation of a variance report, and enables an assessment of whether profitability was *satisfactory* or *unsatisfactory* in terms of meeting the firm's goals/expectations.
- *Performance of other similar firms.* This is sometimes expressed as an 'industry average'. It allows the firm's performance to be compared against other firms operating under similar conditions. This is sometimes known as an 'inter-firm' comparison.

Profitability indicators

In addition to the tools outlined above, the owner may ask the accountant to calculate any number of **profitability indicators**. (These are sometimes known as 'profitability ratios', even though most are actually presented as percentages.) These indicators express an element of profit *in relation to some other aspect of business performance*. As a result, differences in profitability between years and also between businesses can be assessed, as the indicator expresses profitability according to a common base.

This course considers the following indicators:

- Return on Owner's Investment (ROI)
- Return on Assets (ROA)
- Asset Turnover (ATO)
- Net Profit Margin (NPM)
- Gross Profit Margin (GPM).

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

profitability indicators

measures that express an element of profit in relation to some other aspect of business performance

REVIEW QUESTIONS 18.2

- 1 **Define** the following terms:
 - trend
 - benchmark
 - variance
 - profitability indicator.
- 2 **Explain** how trends can be used to assess profitability.
- 3 **Explain** how variances can be used to assess profitability.
- 4 **Describe** three benchmarks that can be used to assess profitability.
- 5 **List** five indicators that can be used to assess profitability.

18.3 RETURN ON OWNER'S INVESTMENT (ROI)

From an investor's point of view, the main measure of profitability is **Return on Owner's Investment (ROI)**, which measures the profit (return) earned per dollar of capital invested by the owner. As a result, it indicates how effectively the business has used the owner's funds to earn profit, which is useful in helping the owner to decide between alternative investments.

Return on Owner's Investment (ROI)

a profitability indicator that measures how effectively a business has used the owner's capital to earn profit

Return on Owner's Investment: formula

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

Given that the Net Profit figure is earned over a period, but capital is measured at a particular point in time, Average Capital is used in the calculation of Return on Owner's Investment so that any increases or decreases in capital over the year are accounted for, and is calculated as:

$$\text{Average Capital} = \frac{\text{Capital at start} + \text{Capital at end}}{2}$$

EXAMPLE

The following data was provided by two clothing stores.

	Carl's Clothing	Anna's Attire
Net Profit	\$14 000	\$10 000
Capital – 1 July 2014	72 000	41 000
Capital – 30 June 2015	68 000	39 000

Clearly Carl's Clothing has earned more profit than Anna's Attire, but his investment is also higher. From an investor's point of view, which is more profitable?

The Return on Owner's Investment for each business would be calculated as is shown in Figure 18.3.

Figure 18.3 Calculating Return on Owner's Investment (ROI)

Carl's Clothing		Anna's Attire	
ROI	= $\frac{14\,000}{(72\,000 + 68\,000)/2} \times 100$	ROI	= $\frac{10\,000}{(41\,000 + 39\,000)/2} \times 100$
	= $\frac{14\,000}{70\,000} \times 100$		= $\frac{10\,000}{40\,000} \times 100$
	= 20%		= 25%

The figures show that despite earning less profit, *Anna's Attire* is actually **more profitable** for its owner; for every dollar she has invested, Anna owner earns \$0.25 profit, whereas for every dollar he has invested, Carl only earns \$0.20. Even though Carl has earned \$4 000 more profit than Anna, he has had to make a substantially larger investment of his own funds to do so.

Benchmarks

As with most profitability indicators, there is no set level at which Return on Owner's Investment would be considered satisfactory, but it could be compared against:

- the Return on Owner's Investment from *previous periods*
- the *budgeted* Return on Owner's Investment
- the Return on Owner's Investment of *similar businesses/alternative investments*.

This last benchmark is particularly important, because Return on Owner's Investment assesses profitability from an *investor's* point of view. Although we have approached this course from the perspective that the owner is also the operator, we must not lose sight of the fact that the owner has invested his or her own money in the business. By doing so, the owner has given up the opportunity to invest elsewhere, and therefore forgone the return that might be earned by investing in property, shares, financial products or other valuables, such as art, wine, antiques or even sporting memorabilia. For this reason, the Return on Owner's Investment must be comparable with the interest rate on a term deposit, the rent earned on property, the dividend earned on shares, or simply the return earned by similar businesses.

In fact, given the risk the owner takes by investing, and the long hours many owners work, he or she may require a Return on Owner's Investment that is higher than these alternative investments. On the other hand, a small business owner may be willing to accept a slightly lower return as a trade-off for the satisfaction that comes from running his or her own business.

Changes in Return on Owner's Investment

Return on Owner's Investment can also be used to assess changes in profitability from one period to the next.

Filmore Doors has provided the following information relating to its trading activities for the year ended 31 December:

	2015	2016
Net Profit	\$ 6 400	\$ 5 400
Average Capital	40 000	30 000
Return on Owner's Investment	16%	18%

EXAMPLE

STUDY TIP

When entering these figures in your calculator, press '=' before dividing, or you'll only divide the last figure (not the total) by 2.

STUDY TIP

Profitability indicators are the function of whatever is in their top line and bottom line; if the indicator changes, it is because one, or both, of these lines has changed.

In 2016, profit decreased by \$1 000 (from \$6 400 to \$5 400), and yet the Return on Owner's Investment increased from 16% to 18%: how is this possible? The answer lies in the fact that the (average) capital decreased; the owner is earning profit on a smaller base. This may mean the business is more reliant on debt (or has a higher Debt Ratio; see Section 18.4), and thus the risk to the business is increased, but from the point of view of the owner as an investor, it results in improved profitability.

REVIEW QUESTIONS 18.3

- 1 State** what is measured by 'Return on Owner's Investment' (ROI).
- 2 Show** the formula to calculate Return on Owner's Investment.
- 3 Explain** why the formula to calculate Return on Owner's Investment uses Average Capital.
- 4 List** three benchmarks that could be used to assess the adequacy of the Return on Owner's Investment.
- 5 Explain** the significance of the 'return on similar investments' as a benchmark for assessing the Return on Owner's Investment.
- 6 Explain** how the Return on Owner's Investment can increase even though profit has decreased.

18.4 DEBT RATIO

Section 18.3 referred to the fact that the Return on Owner's Investment can increase without an increase in profit if the owner's capital reduces. This point illustrates that the Return on Owner's Investment is not just reliant on profit, but also depends on the financial structure of the business: whether it has relied on owner's capital to purchase the assets that earn its profit, or has instead relied on borrowed funds. Thus, an analysis of the Return on Owner's Investment must also include an analysis of the Debt Ratio.

The **Debt Ratio** measures the percentage of a firm's assets that are financed by liabilities, and thus indicates the extent to which the business is reliant on liabilities/debt (rather than owner's capital) to purchase its assets.

Debt Ratio

a stability indicator that measures the percentage of a firm's assets that are financed by liabilities

STUDY TIP

The Debt Ratio is sometimes referred to as 'gearing'.

Debt Ratio: formula

$$\text{Debt Ratio} = \frac{\text{Total liabilities}}{\text{Total assets}} \times 100$$

A high Debt Ratio means a greater reliance on borrowed funds (liabilities) to purchase assets and, consequently, a lower reliance on funds contributed by the owner. This will have implications for the firm's profitability, and its Return on Owner's Investment. However, the Debt Ratio is also a measure of the firm's long-term stability, and can be used to evaluate the level of risk associated with the business.

EXAMPLE

	High Fashions	Low Riders
Net Profit	\$ 8 000	\$ 8 000
Capital	32 000	80 000
Return on Owner's Investment	24%	10%
Total liabilities	68 000	20 000
Total assets	100 000	100 000

Although both firms have earned the same Net Profit (\$8 000), the Return on Owner's Investment is higher for High Fashions (24%) than it is for Low Riders (18%). The reason for this difference is revealed by the Debt Ratio of each business.

Figure 18.4 Calculating Debt Ratio

High Fashions	Low Riders
$\text{Debt Ratio} = \frac{68\,000}{100\,000} \times 100$ $= 68\%$	$\text{Debt Ratio} = \frac{20\,000}{100\,000} \times 100$ $= 20\%$

Although both firms are the same size (with assets of \$100 000 under their control), 68% of the assets of High Fashions are funded from liabilities, with the remaining 32% financed using funds from the owner's capital. This relatively high Debt Ratio, and therefore low reliance on capital, explains why the Return on Owner's Investment of High Fashions is 24%. It could, however, mean that High Fashions is exposed to a greater risk of financial collapse (see below).

For Low Riders, only 20% of the assets are funded from liabilities with the majority (80%) financed by the owner. This low reliance on debt means less risk, but it also means a higher reliance on owner's capital, and thus a lower Return on Owner's Investment (10%).

Benchmarks

In assessing the Debt Ratio, it should be compared against *previous reporting periods*, and the *budgeted* Debt Ratio, but the comparison against *similar firms* is particularly useful, as (by definition) they operate in the same industry, using similar assets and selling similar products. However, the Debt Ratio cannot be assessed in isolation: it should be assessed in conjunction with the Return on Owner's Investment.

The Debt Ratio: risk and return

A higher Debt Ratio means the firm is more heavily reliant on borrowed funds than it is on the owner's capital, and this is one way of increasing the Return on Owner's Investment without actually increasing profit. With a higher Debt Ratio, the business is using someone else's funds to buy the assets to earn profit, but the owner still receives all that profit. However, a higher Debt Ratio means there is a higher risk that the business will be unable to repay its debts and meet the interest payments. Further, interest rate rises could have a significant impact on profit and cash as the business is carrying so much debt.

On the other hand, a low Debt Ratio means the firm is not very reliant on borrowed funds, and is therefore at relatively low risk of being unable to repay its debts. However, it also means that most of the finance used to purchase assets has come from the funds of the owner, and as the owner has had to contribute more personal funds, a lower Return on Owner's Investment will ensue.

The owner must judge carefully so that the Debt Ratio is high enough to maximise the Return on Owner's Investment, but not too high that it will create difficulties for the business in relation to its debt burden.

REVIEW QUESTIONS 18.4

- 1 **Explain** what is measured by the Debt Ratio.
- 2 **Show** the formula to calculate the Debt Ratio.
- 3 **Explain** the significance of 'similar firms' in assessing the Debt Ratio.
- 4 **Explain** why a high Debt Ratio means high risk of financial collapse.
- 5 **Explain** why a high Debt Ratio is likely to result in a high Return on Owner's Investment.

18.5 RETURN ON ASSETS (ROA)

Return on Assets (ROA) a profitability indicator that measures 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. Specifically, it measures Net Profit per dollar of assets controlled by the business. As a result, it indicates how effectively the firm has used its assets to earn profit.

Return on Assets: formula

$$\text{Return on Assets (ROA)} = \frac{\text{Net Profit}}{\text{Average total assets}} \times 100$$

Just as the formula for Return on Owner's Investment used average capital, Return on Assets uses average total assets. (If total assets has not changed significantly over the period, or an average cannot be calculated, total assets at the end of the period may be used.)

EXAMPLE

The following data was provided by two similar book stores.

	Barry's Books	Tina's Texts
Net Profit	\$ 15 000	\$ 18 700
Total assets – 1 January 2015	73 000	105 000
Total assets – 31 January 2015	77 000	115 000

The first point to note from the figures is that Tina's Texts has earned more profit, but this may be simply because it has more assets; that is, it is a larger business, and is therefore capable of generating larger Sales and profit. But which is more profitable?

The Return on Assets for each business would be calculated as is shown in Figure 18.5.

Figure 18.5 Calculating Return on Assets (ROA)

Barry's Books		Tina's Texts	
ROA	$= \frac{15\,000}{(73\,000 + 77\,000)/2} \times 100$	ROA	$= \frac{18\,700}{(105\,000 + 115\,000)/2} \times 100$
=	$\frac{15\,000}{75\,000} \times 100$	=	$\frac{18\,700}{110\,000} \times 100$
=	20%	=	17%

The figures show that it is actually **Barry's Books** that is **more profitable**, as it earns **\$0.20** profit from every dollar of assets it controls, whereas Tina's Texts only earns **\$0.17** profit per dollar of assets. Barry is using his firm's assets more effectively to earn profit, and this could be for a number of reasons: perhaps his stock is in higher demand, or his store is in a better location, or his expense control is better. As the manager, Tina may wish to adopt some of Barry's strategies (if he is willing to tell!).

Benchmarks

The preceding example used the Return on Assets of a *similar business* as a benchmark, but it could also be assessed against the Return on Assets from *previous periods*, or the *budgeted* Return on Assets.

Return on Owner's Investment and Return on Assets

As many small business owners are both investors and managers, they will need to look at both the Return on Owner's Investment and the Return on Assets when assessing profitability. One thing they will notice is that the Return on Owner's Investment will always be *higher* than the Return on Assets. This is because owner's equity will always be lower than total assets, which in turn is due to its borrowings – its liabilities. Only in a firm that has no liabilities, which is extremely unlikely, will the Return on Owner's Investment be the same as the Return on Assets.

Changes in Return on Assets

When assessing changes in the Return on Assets, it is important to keep in mind the figures that are used in its formula: on the top line, the profit the business has earned, and on the bottom, the assets it controls. If assets increase, and Net Profit increases by a smaller proportion, then the Return on Assets will fall, indicating deteriorating profitability. On the other hand, if Net Profit increases by more than assets, the Return on Assets will rise, indicating improved profitability.

The Net Profit figure itself is reliant on the two basic factors we identified earlier: earning revenue and controlling expenses. Therefore, assuming assets do not change, an improvement in the Return on Assets may be the result of an improved ability to earn revenue or better expense control, or both. A deterioration in the Return on Assets would, of course, be caused by the opposite. Either way, the Return on Assets will depend heavily on the firm's ability to earn revenue and control its expenses, so this is the next phase in our analysis of profitability.

STUDY TIP

The exact size of the gap between ROI and ROA will depend on the firm's Debt Ratio.

REVIEW QUESTIONS 18.5

- 1 **State** what is measured by Return on Assets (ROA).
- 2 **Show** the formula to calculate Return on Assets.
- 3 **List** three benchmarks that could be used to assess the adequacy of the Return on Assets.
- 4 **Explain** why Return on Owner's Investment will always be higher than Return on Assets.
- 5 **Identify** two factors that could cause an increase in the Return on Assets.

Asset Turnover (ATO) an efficiency indicator that measures how productively a business has used its assets to earn revenue

18.6 EARNING REVENUE: ASSET TURNOVER (ATO)

Technically, **Asset Turnover (ATO)** is an *efficiency* indicator: it indicates how efficiently the firm has used its assets to generate revenue. But as earning revenue is one of the keys to earning profit, Asset Turnover will have a direct and significant effect on profitability.

Asset Turnover: formula

$$\text{Asset Turnover (ATO)} = \frac{\text{Sales}}{\text{Average total assets}}$$

Specifically, this indicator measures the number of times in a period the value of assets is earned as Sales revenue: the higher the Asset Turnover, the more capable the firm is of using its assets to earn revenue.

EXAMPLE

Pino's Plant Nursery has provided the following information relating to its trading activities for the year ended 30 June:

	2015	2016
Sales revenue	\$ 96 000	\$ 121 500
Average total assets	80 000	90 000

Average assets increased (by \$10 000) in 2011, so an increase in Sales revenue is expected. However, has the firm used these extra assets more or less productively than it did in 2015?

The Asset Turnover for each business would be calculated as is shown in Figure 18.6.

Figure 18.6 Calculating Asset Turnover (ATO)

2015		2016	
ATO	=	$\frac{96\,000}{80\,000}$	ATO = $\frac{121\,500}{90\,000}$
	=	1.2 times	= 1.35 times

In 2015, the business earned **1.2 times** the value of its assets as revenue, and this has risen to **1.35 times** in 2016. This confirms that Pino's Plant Nursery has earned more revenue in 2016 not only because it has more assets, but because it has **used those assets more productively**.

Benchmarks

The preceding example compared Asset Turnover against a *previous period*, but it could equally be assessed against the *budgeted* Asset Turnover, or the Asset Turnover of *similar businesses*. In cases where an expansion is planned, and average assets are expected to increase, budgeted Asset Turnover may be the best benchmark to use for assessment, as it reflects the firm's goal for increased Sales revenue on a greater asset base.

Asset Turnover and Return on Assets

The similarity between Asset Turnover and the Return on Assets reflects the fact that they both assess the firm's ability to use its assets; the only difference being that Return on Assets relates to *profit*, whereas Asset Turnover relates only to *revenue*. Theoretically, an increase in Asset Turnover (meaning an increased ability to earn Sales revenue) should mean an increase in the Return on Assets, and increased Net Profit. However, this is not always the case.

Let us return to the previous example (Pino's Plant Nursery) with additional information provided:

	2015	2016
Sales revenue	\$ 96 400	\$ 121 500
Net Profit	12 000	12 600
Average total assets	80 000	90 000
Asset Turnover	1.2 times	1.35 times
Return on Assets	15%	14%

EXAMPLE

STUDY TIP

When indicators are already expressed as percentages, the change should be described in terms of percentage points.

As noted previously, the Asset Turnover shows the business is **more productive**, in terms of using its assets to earn revenue, in 2016. However, the figures show that in spite of this increase in Asset Turnover, **profitability (as measured by the Return on Assets) has actually fallen** (by 1 percentage point). The only difference between the Asset Turnover and the Return on Assets is the difference between Sales Revenue and Net Profit, i.e. expenses. Therefore, where the Asset Turnover and the Return on Assets move in different directions, or to differing degrees, it indicates a *change in expense control*. In this example, the Asset Turnover increased, and the Return on Assets decreased, indicating worse expense control.

REVIEW QUESTIONS 18.6

- State** what is measured by Asset Turnover (ATO).
- Show** the formula to calculate Asset Turnover.
- List** three benchmarks that could be used to assess the adequacy of a firm's Asset Turnover.
- Explain** how the relationship between a firm's Asset Turnover and its Return on Assets can be used to assess its expense control.

18.7 CONTROLLING EXPENSES

We noted in Chapter 11 that expenses should not necessarily be looked on as 'bad', because they assist in the earning of revenue. This does not mean that the firm should be happy to see more and more of its Sales revenue being consumed by expenses. After all, every dollar that is consumed by expenses means one dollar less Net Profit. This means the firm's ability to control its expenses is a key factor in its ability to earn profit.

expense control

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

Expense control refers to the firm's ability to manage its expenses so that they either decrease, or increase no faster than Sales revenue. This last point may seem a little odd: why should the owner settle for anything less than a reduction in expenses? Remember that in the pursuit of greater Sales, it is unavoidable that some expenses will increase. Expenses such as Cost of Sales and Wages vary directly with the level of Sales, so it is logical that as Sales volume increases, these expenses will increase too. Provided they do not increase *more* than Sales, we can consider this to be evidence of satisfactory expense control. Should they actually increase by *less* than Sales, we would consider this to be evidence of improved expense control.

If expense control improves, then profitability should also improve. We will evaluate expense control by analysing two indicators that calculate the percentage of each dollar of Sales that is retained as profit:

- Net Profit Margin (NPM)
- Gross Profit Margin (GPM).

In assessing these indicators, we will use the benchmarks established earlier in this chapter, namely:

- performance in *previous periods*
- *budgeted* performance
- performance of *similar firms*.

REVIEW QUESTIONS 18.7

- 1 **Define** the term 'expense control'.
- 2 **State** two reasons why the owner of a small business will tolerate increases in some expenses.
- 3 **State** two profitability indicators that assess expense control.

18.8 NET PROFIT MARGIN (NPM)

Competition in many markets means that earning revenue is a challenging exercise for most small businesses. With this in mind, it is vital that once a sale is made, the business retains as much of that revenue as profit as is possible. The **Net Profit Margin (NPM)** measures the percentage of Sales revenue that is retained as Net Profit. Put another way, it measures how much of each dollar of Sales revenue remains as Net Profit after expenses are deducted. As a result, it is a good indicator of expense control.

Net Profit Margin (NPM)

a profitability indicator that measures expense control by calculating the percentage of Sales revenue that is retained as Net Profit

Net Profit Margin: formula

$$\text{Net Profit Margin (NPM)} = \frac{\text{Net Profit}}{\text{Sales revenue}} \times 100$$

Due to differences in Sales revenue, comparing Net Profit between businesses and between periods can be difficult; it is difficult to isolate how much of the difference is due to expense control, and how much is simply due to different Sales revenue. Because this indicator expresses Net Profit *per dollar of Sales*, it can identify changes in profit independent of changes in Sales revenue.

Misha's Shoe Barn has provided the following information from its Income Statement for the year ended 30 June:

	2015	2016
Sales revenue	\$ 72 000	\$ 80 000
Net Profit	14 400	15 200

EXAMPLE

As we would expect, higher Sales revenue in 2016 has generated extra profit, but has it generated *enough* extra profit? Has expense control changed?

The Net Profit Margin for each year would be calculated as is shown in Figure 18.7.

Figure 18.7 Calculating Net Profit Margin (NPM)

2015		2016	
NPM =	$\frac{14\,400}{72\,000} \times 100$	NPM =	$\frac{15\,200}{80\,000} \times 100$
=	20%	=	19%

STUDY TIP

Deducting the NPM from 100 will reveal the percentage of each Sales dollar that is consumed by expenses.

The figures tell us that in 2015, 20c of every dollar of Sales revenue was retained as Net Profit, but in 2016 this fell to 19c per dollar. Alternatively, 80c was consumed by expenses in 2015, and this increased to 81c in 2016. This means that *expense control was worse* in 2016.

Net Profit Margin, Asset Turnover and Return on Assets

The earlier discussion of Return on Assets highlighted that the ability of a firm to use its assets to earn profit depends on its ability both to earn revenue and to control its expenses. We now have an indicator that measures each of these factors:

- *Asset Turnover* measures the ability of the firm to use its assets to earn revenue.
- *Net Profit Margin* measures the ability of the firm to control its expenses and retain Sales revenue as Net Profit.

Thus, Return on Assets depends on both the Asset Turnover and the Net Profit Margin.

This relationship is borne out mathematically too. If we multiply the Asset Turnover and the Net Profit Margin, we get:

$$\begin{aligned}
 & \text{ATO} \quad \times \quad \text{NPM} \\
 = & \frac{\text{Sales revenue}}{\text{Average total assets}} \quad \times \quad \frac{\text{Net Profit}}{\text{Sales revenue}} \\
 = & \frac{\text{Net Profit}}{\text{Average total assets}}
 \end{aligned}$$

which, of course, is the formula for Return on Assets.

'Cancelling down' proves that the Return on Assets, and therefore profitability, depends on the ability of the firm to use its assets to earn revenue (as measured by Asset Turnover) and to control its expenses (as measured by the Net Profit Margin).

REVIEW QUESTIONS 18.8

- 1 **State** what is measured by the Net Profit Margin (NPM).
- 2 **Show** the formula to calculate the Net Profit Margin.
- 3 **Explain** the relationship between Asset Turnover, Net Profit Margin and Return on Assets.

18.9 GROSS PROFIT MARGIN (GPM)

Because the Net Profit Margin uses Net Profit in its calculation, it can be used to assess overall expense control. If Gross Profit is used instead, we are able to assess expense control specifically as it relates to stock and Cost of Goods Sold. Thus, the **Gross Profit Margin (GPM)** measures the percentage of Sales revenue that is retained as Gross Profit.

Gross Profit Margin (GPM)

a profitability indicator that measures the average mark-up by calculating the percentage of Sales revenue that is retained as Gross Profit

Gross Profit Margin: formula

$$\text{Gross Profit Margin (GPM)} = \frac{\text{Gross Profit}}{\text{Sales revenue}} \times 100$$

Gross Profit is the difference between Sales revenue and Cost of Goods Sold, and is used to assess the adequacy of the firm's mark-up: the difference between the selling price and the cost price of its stock. Therefore, the Gross Profit Margin can be used to assess the average mark-up on all goods sold during a particular period.

Let's refer back to our earlier example – Misha's Shoe Barn – with some extra information now available:

EXAMPLE

	2015	2016
Sales revenue	\$ 72 000	\$ 80 000
Gross Profit	38 160	44 800
Net Profit	14 400	15 200
Net Profit Margin	20%	19%

By calculating the Net Profit Margin, we established that although Net Profit increased, this was only due to higher Sales. In fact, the **Net Profit Margin** fell in 2016, **indicating worse expense control**. So which expense(s) is(are) the cause?

The Gross Profit Margin for each year would be calculated as is shown in Figure 18.8.

Figure 18.8 Calculating Gross Profit Margin

	2015		2016
GPM =	$\frac{38\ 160}{72\ 000} \times 100$		$\frac{44\ 800}{80\ 000} \times 100$
=	53%		56%

In 2015, 53c of each dollar of Sales was retained as Gross Profit. In 2016, this rose to 56c per dollar, reflecting a higher average mark-up. Put another way, 47c of every Sales dollar was consumed by Cost of Goods Sold in 2015 (\$1 less 47c Cost of Goods Sold = 53c Gross Profit), but this fell to 44c per dollar in 2016. Why? Although Sales revenue and Gross Profit both increased, Gross Profit increased (proportionally) more, due to a (proportionally) smaller increase in Cost of Goods Sold.

Given that the Gross Profit Margin increased, poor control of Cost of Goods Sold is not responsible for the decrease in the Net Profit rate; we will have to investigate the Other Expenses.

Changes in mark-up

A higher Gross Profit Margin means a higher average mark-up: on average, a bigger gap between selling and cost prices. This could occur if:

- selling prices increased and cost prices remained constant
- cost prices decreased, and selling prices remained constant
- both increased, but selling prices increased by more
- both decreased, but cost prices decreased by more.

Increasing selling prices will increase the average mark-up, but it carries the risk of lowering demand, and thus reducing the volume of Sales. This could mean that while the Gross Profit Margin increases, Gross Profit (in dollars) may actually decrease. That is, the business may make more Gross Profit *per item*, but make fewer actual Sales. If the drop in the number of Sales outweighs the increase in profit per item, Gross Profit will actually fall.

Finding a cheaper supplier will avoid this risk, but it carries a risk of its own. If the quality of the stock is reduced, this could cause a decrease in Sales, or an increase in Sales returns or Stock Losses (through damage). All these factors could potentially undermine the benefits of a higher average mark-up. This does not mean the business should not look for a cheaper supplier, but it does mean the business must be vigilant about the quality of its stock.

Assuming the business can maintain its Sales volume (the number of Sales it makes) and customer satisfaction, a higher mark-up will mean not only a higher Gross Profit Margin, but also a higher Gross Profit.

REVIEW QUESTIONS 18.9

- 1 **State** what is measured by the Gross Profit Margin (GPM).
- 2 **Show** the formula to calculate the Gross Profit Margin.
- 3 **Explain** two ways a business could increase its average mark-up.
- 4 **Explain** how an increase in mark-up could lead to a decrease in Gross Profit.

18.10 VERTICAL ANALYSIS OF THE INCOME STATEMENT

When we calculated the Net Profit Margin and Gross Profit Margin, we divided the appropriate profit figure by Sales revenue. This allowed us to evaluate expense control by assessing what had happened to each dollar of Sales revenue. This approach can be applied to every item in the Income Statement in what is known as a **vertical analysis**. The vertical analysis for Misha's Shoe Barn is shown in Figure 18.9.

vertical analysis
a report that expresses every item as a percentage of a base figure; in this case, Sales revenue

Figure 18.9 Vertical analysis of the Income Statement

MISHA'S SHOE BARN				
Income Statement for the year ended 30 June				
	2015		2016	
	\$	%	\$	%
Sales Revenue	72 000	100	80 000	100
Less Cost of Goods Sold	33 840	47	35 200	44
Gross Profit	38 160	53	44 800	56
Less Stock Loss	720	1	800	1
Adjusted Gross Profit	37 440	52	44 000	55
Less Other Expenses				
Wages	12 240	17	16 800	21
Rent	7 200	10	7 200	9
Advertising	3 600	5	4 800	6
Net Profit	14 400	20	15 200	19

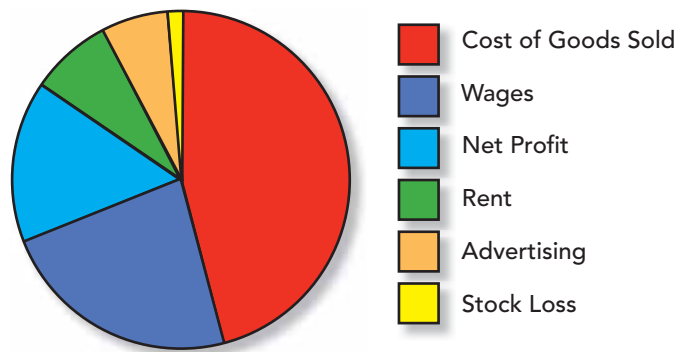
By comparing the vertical analysis from one year to the next, we can see changes not just in expense *amounts* (as would be shown in a horizontal analysis), but changes in expenses as a *percentage of Sales*. That is, it shows what each revenue and expense would be *if Sales had been constant*.

This vertical analysis confirms what we identified by calculating the Net Profit Margin and Gross Profit Margin:

- Sales revenue increased by \$8 000, and this led to an increase in Net Profit of \$800. However, the Net Profit Margin decreased from 20% to 19%, indicating a slight deterioration in expense control.
- The Gross Profit Margin increased from 53% to 56%, indicating a higher average mark-up.
- Although Stock Loss increased, this was in proportion to the increase in Sales revenue, so as a percentage of revenue it was constant (at 1%). Expense control here was satisfactory.
- Higher Sales led to higher wages, but the expense increased proportionately more than Sales revenue, increasing from 17% to 21% of Sales revenue. The same applies to advertising, which increased from 5% to 6% of Sales revenue.
- As a fixed expense, rent was constant in dollar terms, but as Sales revenue increased, it absorbed less of each dollar of Sales, decreasing from 10% to 9%.

Using graphs

Given that not all business owners are accountants, presenting a vertical analysis in a pie chart is one way of ensuring *Understandability* in the accounting reports. Figure 18.10 shows the pie chart for 2016.

Figure 18.10 Graphical representation of vertical analysis

This pie chart shows that **Cost of Goods Sold** is clearly the most significant expense, consuming almost half of every Sales dollar, so action here may prove very effective in terms of improving profitability. On the other hand, Stock Loss (shown in yellow) is relatively small, so even if stock management was improved significantly, only a small improvement in profitability is likely.

REVIEW QUESTIONS 18.10

- 1 **Explain** what is shown in a vertical analysis of the Income Statement.
- 2 **Explain** one benefit of preparing a vertical analysis as a pie chart.

18.11 NON-FINANCIAL INFORMATION

The assessment of profitability in this chapter has relied primarily on the Income Statement, and profitability indicators, which are themselves derived in large part from the Income Statement. These are obviously very important in evaluating profitability, but we need to be mindful that there are limits on the ability of this information to assist the owner in making financial decisions. These include the fact that:

- the reports use *historical data* – they do not guarantee what will happen in the future
- many indicators rely on *averages*, and this may conceal details about individual items
- firms use *different accounting methods*, which can undermine the *Comparability* of the reports, and profitability indicators and
- the *reports contain limited information*: there are many items of information simply not reported in an Income Statement.

As a consequence of these limitations, the owner should not rely on profitability indicators and the Income Statement alone. In fact, **non-financial information** can be just as important in aiding decision-making.

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 the following.

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

Given the difficulties they face in attracting customers, it is vital that small businesses retain those customers they already have. It is therefore essential to have feedback from current customers on their degree of satisfaction (or dissatisfaction) with current products and services offered by the firm. **Customer satisfaction surveys** are designed for this purpose, but other measures could be used, such as:

- number of repeat sales
- number of sales returns
- number of customer complaints
- number of sales enquiries/catalogue requests
- degree of brand recognition, based on market research.

The suitability of stock

Businesses must assess the suitability of their stock on a continuous basis to ensure that they are meeting the demands of consumers. The level of Sales reports how much was sold, but it gives little feedback on whether customers were satisfied with their purchase. Not every customer can be surveyed, but the **number of sales returns** will provide a useful guide to the suitability of stock, with the firm keeping detailed records on the reasons for those returns. The **number of purchase returns** will provide a good guide as to the quality of stock, as will the **number of customer complaints**.

The firm's relationship with its employees

Although not reported directly in the Income Statement, the performance of employees has a direct and significant bearing on whether a profit or loss is generated. Staff may be responsible for important tasks, such as generating Sales or managing stock, so appraising their performance is an important part of assessing the firm's performance. This could be done by structured **performance appraisals**.

The degree of employee satisfaction and workplace harmony, on the other hand, could be assessed by the **number of days lost due to sick leave/industrial action**, or the **staff turnover/average length of employment**.

The state of the economy

Even the most profitable business will struggle to survive in a shrinking economy, so the state of the economy must be factored in to any evaluation of profitability. Specifically, the owner may wish to consider **interest rates**, the **unemployment rate**, and the **number of competitors** it faces, all of which will affect the firm's ability to generate Sales. The **level of inflation** will also be relevant when assessing the firm's ability to control its expenses.

REVIEW QUESTIONS 18.11

- 1 **Explain** four limitations of relying solely on the Income Statement and profitability indicators to evaluate profitability.
- 2 **Define** the term 'non-financial information'.
- 3 **State** two measures that could be used to assess:
 - the firm's relationship with its customers
 - the suitability of stock
 - the firm's relationship with its employees
 - the state of the economy.

18.12 STRATEGIES TO IMPROVE PROFITABILITY

The whole point of gathering and recording financial data, reporting financial information, and analysing and interpreting the financial reports is to enable the accountant to assist the owner in making decisions. In many cases the accountant will do this by providing advice: suggesting strategies to improve the firm's performance.

If profitability is a function of the firm's ability to earn revenue and control its expenses, then strategies to improve profitability should concentrate on these two areas.

Earning revenue

In order to improve its ability to earn revenue, a business could change its:

- *Selling price.* Selling prices could be decreased to generate more Sales volume, or increased to generate greater revenue per sale.
- *Advertising.* Advertising could be increased, or targeted more accurately at prospective customers.
- *Stock mix.* Stock held for sale could be changed so that only those products that are in demand are kept on hand: slow-moving lines should be removed, and replaced with those that sell.
- *Non-current assets.* Non-current assets could be increased, or replaced by more efficient versions, to enable the firm to increase Sales (or lower operating and maintenance expenses). This may be better equipment, display fittings, delivery vehicles or, in extreme cases, a new location.
- *Customer service.* Internal procedures (such as paperwork) could be made more customer friendly; staff training could improve employees' service/product knowledge; extra services (such as deliveries, wrapping, internet/phone access and product advice) could be offered.

Controlling expenses

In order to improve its ability to control expenses, a business could change its:

- *Management of stock.* An alternative supplier may be able to provide cheaper and/or better quality stock, while different ordering procedures could reduce storage costs and Stock Losses, or generate price discounts. (See Chapter 19 for a detailed discussion of stock management principles.)
- *Management of staff.* Different rostering systems, appropriate incentives and extra training may improve staff productivity and performance.
- *Management of NCAs.* Assets that are inefficient, under-utilised or unreliable are ultimately expensive, and should be replaced or removed.

The specific nature of the advice given to the owner will depend in large part on the circumstances of the individual business in question: what is right for one may not be appropriate for another. The accountant's role is to provide guidance and assistance so that decisions are made in an informed manner, but ultimately it is up to the owner to decide what course of action to take.

REVIEW QUESTIONS 18.12

- 1 **State** three strategies that could be used to improve a firm's ability to earn revenue.
- 2 **State** three strategies that could be used to improve a firm's ability to control its expenses.

WHERE HAVE WE BEEN?

- Analysing involves examining the reports in detail to identify changes or differences in performance.
- Interpreting involves examining the relationships between items in the reports in order to explain the cause and effect of those changes or differences.
- Profitability is about assessing the firm's capacity or ability to earn profit, assuming all other factors were equal.
- There are various tools available to assess profitability, including trends, variances, benchmarks and profitability indicators.
- Benchmarks for assessing profitability include performance in previous periods, budgeted performance and the performance of other similar firms.
- Profitability indicators express an element of profit in relation to some other aspect of business performance.
- Return on Owner's Investment assesses profitability from an investor's point of view.
- The Debt Ratio has implications for both the risk (long-term stability) and return (Return on Owner's Investment).
- Return on Assets assesses profitability from a manager's point of view.
- The Net Profit Margin and Gross Profit Margin assess expense control.
- The Return on Assets depends on the Asset Turnover and the Net Profit Margin.
- Evaluating profitability is limited by the use of historical data, the use of averages, different accounting methods and limited information.
- A business may require non-financial information about its relationship with its customers, its stock, its relationship with its employees, and the state of the economy.

EXERCISES

EXERCISE 18.1 PROFITABILITY

 page 402

Vince Iaconis is the owner of Cheltenham HiFi, which last year earned \$25 000 profit. His friend Marinda Rendle is the owner of Mentone Stereo Store, which earned \$16 000 profit for the same period. Vince has stated that because his firm's profit is higher, his firm must be more profitable.

Required

- Explain** why Vince's statement is incorrect.
- State** two bases that profit could be compared against in an assessment of profitability.

**EXERCISE 18.2**
 page 403
RETURN ON OWNER'S INVESTMENT

Karl's Kites is a kite shop owned and run by Karl Largerflag. Karl has provided the following information relating to its performance over the last two years:

	2015	2016
Net Profit	15 000	14 400
Average Capital	150 000	120 000

Karl is considering whether to continue as the owner, or sell the business and invest in a property trust that is currently earning 8% per year.

Required

- Calculate** the Return on Owner's Investment for Karl's Kites for 2015 and 2016.
- Explain** the cause(s) of the change in the Return on Owner's Investment from 2015 to 2016.
- State** two reasons why Karl should be happy with the firm's profitability in 2016.
- State** one reason why Karl should be concerned about the firm's profitability in 2016.

EXERCISE 18.3
 page 404
RETURN ON OWNER'S INVESTMENT AND DEBT RATIO

Babbling Brooke sells ponds and other garden ornaments, and has provided the following information relating to its performance over the last two years:

	2015	2016
Net Profit	22 000	10 000
Return on Owner's Investment	10%	12.5%
Total Liabilities	180 000	320 000
Total Assets	400 000	400 000

Required

- State** whether profitability improved or worsened in 2016. **Justify** your answer.
- Calculate** the Debt Ratio for Babbling Brooke for 2015 and 2016.
- Explain** the effect of the change in the Debt Ratio on the long-term stability of Babbling Brooke.
- Explain** the effect of the change in the Debt Ratio on the profitability of Babbling Brooke.
- Discuss** whether the owner should be pleased about the change in the firm's performance in 2016.

EXERCISE 18.4

RETURN ON OWNER'S INVESTMENT AND RETURN ON ASSETS

 page 405

Legend Guitars and Axeman's Heaven are competitors in selling musical instruments. The following information relates to their trading performance for 2015:

	Legend Guitars	Axeman's Heaven
Net Profit	12 000	12 000
Average Owner's Equity	80 000	40 000
Average Total Assets	120 000	150 000
Return on Owner's Investment	15%	30%
Debt Ratio	22 000	10 000

Required

- State** what is measured by Return on Assets.
- Calculate** the Return on Assets for each firm for 2015.
- Explain** why the Return on Owner's Investment is higher for Axeman's Heaven than Legend Guitars.
- From a manager's point of view, **state** which firm is more profitable. **Justify** your answer.
- Explain** why a firm's Return on Owner's Investment will always be greater than its Return on Assets.
- State** one other indicator the accountant would need to consider before giving advice to improve profitability. **Explain** the role of this indicator.

EXERCISE 18.5

RETURN ON ASSETS AND ASSET TURNOVER

 page 407

Only Bikes has presented the following information relating to its performance for 2014 and 2015:

	2014	2015
Sales Revenue	300 000	448 000
Net Profit	15 000	16 800
Average Total Assets	200 000	280 000
Return on Assets	7.5%	6%

The owner of Only Bikes argues that expense control must have improved in 2015 because Net Profit increased.

Required

- State** what is measured by 'Asset Turnover'.
- Calculate** Asset Turnover for Only Bikes for 2014 and 2015.
- Explain** why Asset Turnover has changed from 2014 to 2015.
- Referring to Asset Turnover and Return on Assets, **explain** why the owner's assertion is incorrect.
- Suggest** two strategies the owner could adopt to improve Net Profit in 2016 without changing Asset Turnover.



EXERCISE 18.6

 page 408

ASSET TURNOVER AND NET PROFIT MARGIN

Filmore Fittings sells hardware and homewares, and has provided the following information relating to its performance for 2015:

	Filmore Fittings	Industry average
Return on Owner's Investment	20%	12.5%
Return on Assets	6%	8%
Asset Turnover	0.60 times	0.64 times
Net Profit Margin	10%	12.5%

Required

- State** two reasons why the Return on Assets of Filmore Fittings is lower than the industry average.
- State** two benchmarks other than the industry average that could be used to assess the Return on Assets of Filmore Fittings.
- Suggest** two strategies Filmore Fittings could adopt to improve its Asset Turnover.
- Explain** why an improvement in expense control could still see total expenses increase.
- Assuming it had the same total assets as the industry average (\$500 000), **state** whether the Debt Ratio of Filmore Fittings would be:
 - higher than the industry average
 - lower than the industry average
 - the same as the industry average
 - unable to be determined.

Justify your answer.

EXERCISE 18.7

 page 409

NET PROFIT MARGIN

All The Weights sells gym equipment, and has provided the following information about its profit performance for 2015 and 2016:

	2015	2016
Sales	153 000	175 000
Net Profit	8 500	11 000
Asset Turnover	1.8 times	1.75 times
Return on Assets	10%	11%

Required

- Referring to the information above, **identify** one indicator that supports the claim that the firm's ability to earn revenue has worsened.
- State** the reason for the decrease in the firm's Asset Turnover.
- State** what is measured by the Net Profit Margin.
- Calculate** the Net Profit Margin for 2015 and 2016.
- Explain** why the firm's Return on Assets has increased in 2016.

EXERCISE 18.8

GROSS PROFIT MARGIN

 page 410

Holly's Golf Gear has provided the following information for 2015:

	\$
Sales Revenue	120 000
Gross Profit	75 000
Adjusted Gross Profit	72 000
Net Profit	45 000
Gross Profit Margin – 2009	60%

Required

- a Explain** what is measured by the Gross Profit Margin.
- b Calculate** Gross Profit Margin for 2015.
- c State** two strategies the owner could adopt to improve the Gross Profit Margin.
- d Explain** how increasing selling prices could lead to an increase in the Gross Profit Margin but a decrease in Gross Profit.
- e Suggest** two strategies that the owner could adopt to improve the adjusted Gross Profit without changing the Gross Profit Margin.

EXERCISE 18.9

GROSS PROFIT MARGIN

 page 411

The Gross Profit Margin of Campbell Paints fell from 55% in 2014 to 52% in 2015. In response, the owner has decided to increase spending on advertising.

Required

- a Suggest** two possible reasons for the change in the Gross Profit Margin from 2014 to 2015.
- b Explain** why the owner's plan of action will not lead to an improvement in the Gross Profit Margin.
- c State** one way of improving the Gross Profit Margin without affecting Asset Turnover.
- d Explain** how the owner's plan of action could lead to:
 - an improvement in the Net Profit Margin
 - a worsening in the Net Profit Margin.
- e State** two pieces of non-financial information the owner may want to see to assess the quality of his stock.
- f State** one limitation of relying on the Gross Profit Margin to assess the firm's profitability.



EXERCISE 18.10

VERTICAL ANALYSIS OF THE INCOME STATEMENT

 page 412

Woolly Good is a clothing shop, and it has provided a vertical analysis of its Income Statements for the year ending 31 December 2015 and 2016:

WOOLLY GOOD

Income Statement for the year ended 31 December

	2015		2016	
	\$	%	\$	%
Sales Revenue	90 000	100	120 000	100
Less Cost of Goods Sold	37 800	42	54 000	45
Gross Profit	52 200	58	66 000	55
Less Stock Loss	1 800	3	2 400	2
Adjusted Gross Profit	50 400	55	63 600	53
Less Other Expenses				
Wages	15 300	17	21 600	18
Rent	9 000	10	12 000	10
Advertising	11 700	13	13 200	11
Net Profit	13 500	15	16 800	14

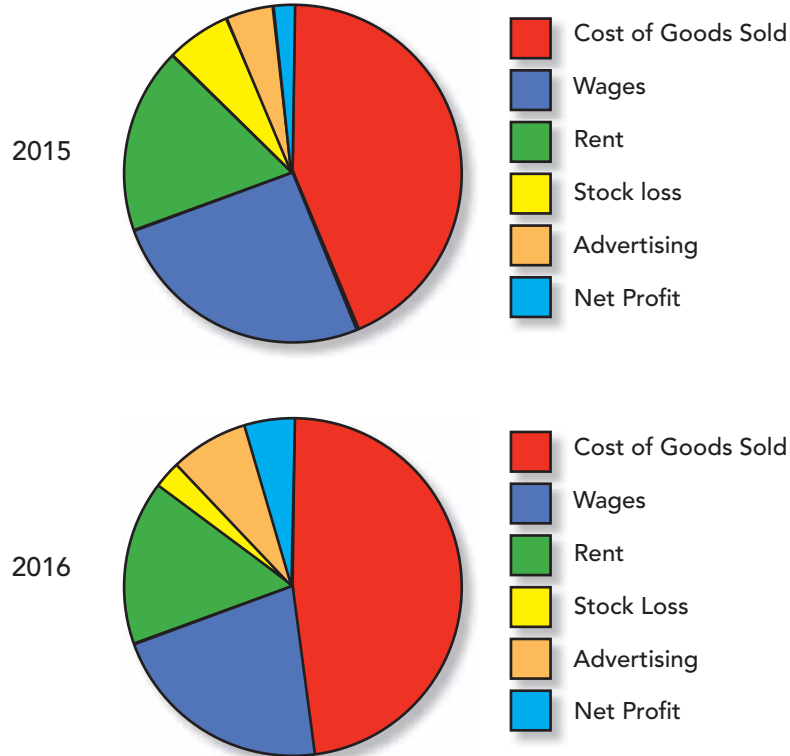
Required

- a **List** three possible reasons for the increase in Sales revenue.
- b **State** whether overall expense control has improved or worsened in 2016. **Justify** your answer.
- c **Explain** how a reduction in the Gross Profit Margin has been beneficial for the firm in 2016.
- d **State** two reasons why the owner should **not** be concerned about the decrease in the Adjusted Gross Profit Margin.
- e **Suggest** two strategies the firm could adopt to improve its control of wages.
- f **Suggest** one possible reason why rent has increased.
- g **Discuss** whether the change in advertising has been beneficial to the firm's overall profitability.
- h **State** two pieces of non-financial information the owner could use to assess the firm's relationship with its staff.

EXERCISE 18.11

GRAPHICAL REPRESENTATION OF VERTICAL ANALYSIS

Peter Cole Enterprises has presented the following graphs relating to its profitability for 2015 and 2016:



Additional information:

- Sales revenue was \$100 000 in 2015 and \$120 000 in 2016.
- Rent expense was \$18 000 in each year.
- Total assets remained the same but the Debt Ratio decreased in 2016.

Required

- Referring to information provided, **identify** one reason for the increase in Sales revenue in 2016.
- Referring to the graphs, **explain** why the rent expense segment (the green segment) is smaller in 2016.
- Suggest** two strategies Peter may have used to cause the change in Stock Loss.
- State** whether wages expense (in dollar terms) would be higher, lower or the same in 2016. **Justify** your answer.
- Explain** why the Gross Profit Margin would be lower in 2016.
- Discuss** whether profitability improved, worsened or remained the same in 2016.

Where are we headed?

After completing this chapter, you should be able to:

- **define** 'liquidity'
- **analyse** liquidity and efficiency using trends, variances, benchmarks and liquidity indicators
- **calculate** and **explain** various liquidity and efficiency indicators
- **explain** the relationship between turnover indicators
- **suggest** strategies to improve liquidity and manage stock and debtors.

Course advice:

The VCE Accounting Study Design states that students will not be required to calculate financial indicators in the examination. However, calculations are included in this text as an essential mechanism for understanding the information these indicators present.

CHAPTER 19

EVALUATING LIQUIDITY

KEY TERMS

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

- liquidity
- Working Capital Ratio (WCR)
- Quick Asset Ratio (QAR)
- Cash Flow Cover (CFC)
- Stock Turnover (STO)
- Debtors Turnover (DTO)
- Debtors Ageing Analysis
- Creditors Turnover (CTO).

19.1 ASSESSING LIQUIDITY

Chapter 18 discussed the tools and techniques that can be employed to evaluate profitability, with the aim of providing business owners with advice to aid their decision-making. This chapter takes a similar approach, but concentrates instead on an assessment of liquidity.

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



liquidity

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

Liquidity refers to the ability of a business to meet its short-term debts as they fall due. Any assessment of liquidity should begin by analysing the *level* of liquid funds that is available to meet short-term obligations. This will obviously include cash that is already on hand, but it will also include cash that can be generated from stock and debtors. However, it should also analyse the *speed* at which those liquid resources become available, so that we can assess whether the cash will be available in time to meet the firm's short-term obligations.

Tools for assessing liquidity

The same types of tools that were used to assess profitability can be applied to an assessment of liquidity:

- trends
- benchmarks
- variances
- liquidity indicators.

In terms of identifying *trends* and *variances*, the primary sources of information will be the Cash Flow Statement and Budgeted Cash Flow Statement, which detail the actual and expected inflows and outflows of cash. (This was covered in detail in Chapter 17.) In fact, the Budgeted Cash Flow Statement is essential to an analysis of liquidity, as it details all expected cash inflows and cash outflows, and states categorically whether the business will be able to meet its cash obligations for the coming year.

In Chapter 18, we assessed profitability against three key benchmarks, and these can be applied to assess liquidity:

- liquidity in *previous periods*
- *budgeted* liquidity
- liquidity of *similar businesses*.

In addition, some of the liquidity indicators have their own specific benchmark against which liquidity can be measured.

We will use the following indicators to assess the *level* of liquidity:

- Working Capital Ratio (WCR)
- Quick Asset Ratio (QAR)
- Cash Flow Cover (CFC).

We will use three efficiency indicators to assess the *speed* of liquidity:

- Stock Turnover (STO)
- Debtors Turnover (DTO)
- Creditors Turnover (CTO).

REVIEW QUESTIONS 19.1

- 1 **Define** the term 'liquidity'.
- 2 **Explain** the role of the Budgeted Cash Flow Statement in evaluating liquidity.
- 3 **State** three indicators that are used to assess the level of liquidity.
- 4 **State** three indicators that are used to assess the speed of liquidity.

19.2 WORKING CAPITAL RATIO (WCR)

The **Working Capital Ratio (WCR)** assesses liquidity by comparing current assets and current liabilities.

Working Capital Ratio: formula

$$\text{Working Capital Ratio (WCR)} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

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

Specifically, the Working Capital Ratio measures how many dollars of current assets are available to meet each dollar of current liabilities. As a result, it indicates whether the business will be able to meet its short-term debts (its current liabilities) using cash generated from its current assets.

Grant's Glasses has presented the following extract from its Balance Sheet as at 31 January 2015:

Current Assets		Current Liabilities	
Bank	3 500	Creditors Control	20 000
Debtors Control	12 500	Loan – GV Bank	12 000
Stock Control	34 000	Accrued Wages	500
Prepaid Rent Expense	1 000	GST Clearing	1 500
Total Current Assets	\$51 000	Total Current Liabilities	\$34 000

EXAMPLE

The Working Capital Ratio would be calculated as is shown in Figure 19.1:

Figure 19.1 Calculating Working Capital Ratio (WCR)

$$\begin{aligned} \text{WCR} &= \frac{51\,000}{34\,000} \\ &= 1.5:1 \end{aligned}$$

The Working Capital Ratio shows that Grant's Glasses has \$1.50 of current assets for every \$1 of current liabilities.

Assessing the Working Capital Ratio

As was stated earlier, the Working Capital Ratio for the current period can be compared against *previous periods* or the *budgeted* figure to assess whether it has increased or decreased, but this will not allow us to determine whether it is satisfactory or unsatisfactory.

The Working Capital Ratio is based on the idea that the cash that can be generated from current assets (in the next 12 months) should be enough to meet the short-term debts that fall due in that time. As a result, *satisfactory* liquidity exists if the Working Capital Ratio is *at least 1:1*, as this would indicate that there is at least \$1 of current assets available to meet every \$1 of current liabilities, and the firm would be able to meet all its short-term debts as they fall due. Grant's Glasses actually has \$1.50 worth of current assets for every dollar of current liabilities, so its level of liquidity is satisfactory.

A Working Capital Ratio of *less than 1:1* indicates *unsatisfactory* liquidity; the business may not be able to meet its debts as they fall due as it has insufficient current assets to meet its current liabilities. If the situation is not addressed, and creditors and others are unable to be paid, the business may be forced into liquidation, with its assets sold to raise funds to pay off its debt.

A Working Capital Ratio of *exactly 1:1* would leave no margin for error; if any of the current assets could not be converted into cash, the business would have insufficient cash to meet its debts, and could face liquidity problems.

Working Capital Ratio less than 1:1

If the Working Capital Ratio is *less than 1:1*, the firm may experience difficulties in meeting its debts as they fall due. In order to avoid 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 to purchase non-current assets.

In the long term, borrowing may worsen the cash situation, as the servicing of the debt would require cash to repay both the principal and interest. However, in the short term, the survival of the business may depend on the extra finance provided by a loan.

Working Capital Ratio much greater than 1:1

Although it is beneficial for the Working Capital Ratio to be above 1:1, a business owner should also be wary of having a Working Capital Ratio that is *too high*, as this may indicate that the business has excess current assets that are idle, and not being employed effectively.

This can be apparent in a number of different current assets:

- *Bank.* Business bank accounts pay very small amounts of interest, thus there is little to gain from keeping more cash in the bank than is necessary to meet obligations (expected and unexpected). A business would be better off using excess cash to retire debt, expand Operations, or even to make other investments (e.g. a term deposit) where it will be able to earn a greater return on its funds.
- *Stock Control.* A large amount of stock could incur additional storage costs, and increase the possibility of stock loss, damage and technical obsolescence, which could require a stock write-down.
- *Debtors Control.* A large debtors figure might indicate an increasing group of 'ageing' debtors. The older a debt becomes the less likely it is to be received and the greater the probability that the debt will go 'bad'; that is, become uncollectible.

Where the Working Capital Ratio is too high the owner may:

- use excess cash by repaying debts, purchasing non-current assets or taking extra drawings
- allow stock levels to run down before reordering
- contact debtors to collect amounts outstanding.

REVIEW QUESTIONS 19.2

- 1 **State** what is measured by the Working Capital Ratio (WCR).
- 2 **Show** the formula to calculate the Working Capital Ratio.
- 3 **Explain** why the Working Capital Ratio should be at least 1:1.
- 4 **Explain** 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.

19.3 QUICK ASSET RATIO (QAR)

Underlying the use of the Working Capital Ratio to assess the level of liquidity is the assumption that all current assets can be liquidated immediately if cash is needed to meet short-term debts. However, there are some practical difficulties with this assumption.

Consider *stock*. Most trading businesses would already be trying to sell their stock as fast as they can, so there is no guarantee that all their stock will suddenly be sold, just because the firm is facing liquidity problems. And there is virtually no chance of this happening immediately. As a result, it is questionable whether these assets can be relied on as sources of liquid funds. Also, *prepaid expenses* cannot normally be converted back into cash. If the business has entered into a contract and paid for a 12-month lease, it is not likely to be able to ask for a refund.

At the same time, although a *bank overdraft* is a current liability, it is unlikely that it will be called in (for repayment) as long as it remains under the limit. This is an argument for excluding it as a debt that will require payment in the short term. (If the overdraft is well below the limit, it may represent a source of funds.)

In order to overcome these deficiencies, the **Quick Asset Ratio (QAR)** can be used as an alternative indicator of the level of liquidity. It assesses the firm's ability to meet its *immediate* debts using its *immediate* assets.

Quick Asset Ratio (QAR)
a liquidity indicator that measures the ratio of quick assets to quick liabilities, to assess the firm's ability to meet its immediate debts

Quick Asset Ratio: formula

$$\text{Quick Asset Ratio (QAR)} = \frac{\text{Current assets (excluding Stock and Prepaid Expenses)}}{\text{Current liabilities (excluding Bank Overdraft)}}$$

The Quick Asset Ratio is a modification of the Working Capital Ratio: it excludes *stock* and *prepaid expenses* from current assets as they may not be easily converted to cash in a time of crisis, and excludes any bank overdraft from current liabilities as this is unlikely to require repayment.

Assessing the Quick Asset Ratio

Although the Quick Asset Ratio is a slightly different measure of liquidity, the benchmarks for assessing its adequacy remain the same as those used to assess the Working Capital Ratio. That is, the Quick Asset Ratio should be at least 1:1, but can also be compared to the Quick Asset Ratio from *previous periods* or the *budget* to identify increases or decreases.

EXAMPLE

WILSON'S WHITE GOODS			
Balance Sheet (extract) as at 31 December 2015			
Current Assets		Current Liabilities	
Debtors Control	15 000	Bank overdraft	5 000
Stock Control	51 000	Creditors Control	15 000
Prepaid rent	9 000	Accrued electricity	3 000
		GST Clearing	2 000
Total Current Assets	\$75 000	Total Current Liabilities	\$25 000

A comparison of the Working Capital Ratio and Quick Asset Ratio is shown in Figure 19.2.

STUDY TIP

Although prepaid expenses are excluded from quick assets, accrued expenses are included as quick liabilities as they will still have to be repaid.

Figure 19.2 Comparing Working Capital Ratio and Quick Asset Ratio

Working Capital Ratio		Quick Asset Ratio	
WCR	= $\frac{75\,000}{25\,000}$	QAR	= $\frac{15\,000}{20\,000}$
	= 3:1		= 0.75:1

The **Working Capital Ratio** indicates that the business has \$3 of current assets for every \$1 of current liabilities and, as a result, its liquidity is satisfactory; there should be sufficient current assets to meet its current liabilities as they fall due. However, the **Quick Asset Ratio** suggests that liquidity is unsatisfactory, because the firm will have only 75c of quick assets to pay quick liabilities. What does this mean for liquidity? Will the business be able to meet its short-term debts or not?

The fact that the **Working Capital Ratio** is **satisfactory** but the **Quick Asset Ratio** is **unsatisfactory** is a direct result of the fact that the business has a large investment in its stock and prepaid expenses. Given the difficulties in liquidating prepaid expenses, the firm's ability to meet its debts will depend heavily on its ability to sell its stock on time: if the stock can be sold, the firm will be able to meet its debts as they fall due; if not, liquidity problems may result.

In order to address the situation, the business will need to improve the level of quick assets by improving debtors or by trying to maintain a positive bank balance. It can also attempt to reduce the level of quick liabilities by reducing the level of creditors and accrued expenses.

REVIEW QUESTIONS 19.3

- 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.

19.4 CASH FLOW COVER (CFC)

One of the key problems with using both the Working Capital Ratio and the Quick Asset Ratio is that they rely on *static items* to measure future cash flows. That is, the information used in both ratios comes from the Balance Sheet, so it provides no real indication of the cash flows of the business.

In contrast, the **Cash Flow Cover (CFC)** assesses liquidity by identifying the actual cash that the business generates from its Operating activities to meet its financial obligations. Specifically, it measures the number of times average current liabilities can be met using the Net Cash Flows from Operations.

Cash Flow Cover (CFC)
a liquidity indicator that measures the number of times Net Cash Flows from Operations is able to cover average Current Liabilities

Cash Flow Cover: formula

$$\text{Cash Flow Cover (CFC)} = \frac{\text{Net Cash Flows from Operations}}{\text{Average Current Liabilities}}$$

If a business cannot generate sufficient cash from its day-to-day operating activities, it will require regular contributions from the owner or external financiers in order to meet its loan repayments and provide cash for the owner's drawings.

Jenny's Jumpers has provided the following information about its liquidity position as at 30 June:

	2015	2016
Net Cash Flows from Operations	\$ 40 000	\$ 36 000
Current liabilities at start	18 000	14 000
Current liabilities at end	14 000	10 000

EXAMPLE

Clearly, there is less cash available from operating activities in 2016, but has liquidity improved or worsened as a result? The Cash Flow Cover for each year would be calculated as is shown in Figure 19.3.

STUDY TIP

Although it is called a 'ratio', the calculation is actually expressed in terms of 'times'.

Figure 19.3 Calculating Cash Flow Cover

2015		2016	
CFC	= $\frac{40\,000}{(18\,000 + 14\,000)/2}$	CFC	= $\frac{36\,000}{(14\,000 + 10\,000)/2}$
	= $\frac{40\,000}{16\,000}$		= $\frac{36\,000}{12\,000}$
	= 2.5 times		= 3 times

In 2015, Net Cash Flows from Operations was able to pay average current liabilities **2.5 times**. This has increased to **3 times** in 2016, indicating **improved liquidity**. Why did this happen? Even though Net Cash Flows from Operations decreased (from \$40 000 to \$36 000) in 2016, average current liabilities decreased by proportionately more, leading to an improvement in the ability of the firm to pay its short-term debts using its operating cash flows.

Assessing the Cash Flow Cover

Unlike the Working Capital Ratio and Quick Asset Ratio, there is no set benchmark at which the Cash Flow Cover would be considered satisfactory. However, it can be compared against the Cash Flow Cover from *previous periods*, or the *budgeted* Cash Flow Cover to assess whether it has improved or worsened, or against the Cash Flow Cover of *similar businesses*. In general, the longer the period being examined in the ratio the more times the business would expect the average current liabilities to be covered.

REVIEW QUESTIONS 19.4

- 1 State** what is measured by the Cash Flow Cover (CFC).
- 2 Show** the formula to calculate the Cash Flow Cover.
- 3 State** three benchmarks that could be used to assess the adequacy of the Cash Flow Cover.

19.5 THE SPEED OF LIQUIDITY

Our analysis of liquidity so far has been predicated on the notion that a business will struggle to meet its debts as they fall due if its current/quick assets are less than its current/quick liabilities. This assessment of the *level* of liquidity used the Working Capital Ratio and the Quick Asset Ratio to assess how much cash the business could generate to meet its short-term obligations.

However, businesses are not static entities; they are constantly generating sales, which will then turn into cash, which will then be used to purchase more stock, to generate more sales, etc. Thus, the level of liquidity is, on its own, an inadequate measure of a firm's ability to meet its debts. In fact, a business can survive in spite of an unsatisfactory level of liquidity, if the *speed* of its trading cycle is fast enough. That is, if a business can sell its 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).

In common with Asset Turnover (from Chapter 18), these indicators actually assess *efficiency*: the ability of the firm to manage its stock, debtors and creditors. However, because they have a direct and significant effect on cash flows (namely, Cash Sales, Receipts from Debtors and Payments to Creditors), they also have a significant effect on liquidity.

REVIEW QUESTIONS 19.5

- 1 Explain** how a firm with a high turnover can remain solvent despite an unsatisfactory level of liquidity.
- 2 Define** the term 'efficiency' as it relates to the assessment of business performance.

19.6 STOCK TURNOVER (STO)

As the main source of revenue, stock is also the main source of cash inflows. But before cash can be collected from cash sales or debtors, the stock must first be sold. **Stock Turnover (STO)** assesses how effectively the firm has managed its stock holdings, by calculating the average number of days taken to convert stock into sales.

Stock Turnover (STO)
the average number of days it takes for a business to convert its stock into sales

Stock Turnover: formula

$$\text{Stock Turnover (STO)} = \frac{\text{Average stock} \times 365}{\text{Cost of Goods Sold}}$$

Average stock is used in an attempt to reflect the stock on hand carried throughout the period, while multiplying by 365 converts the turnover into days.

Fast Stock Turnover, as measured by low days, means that, 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

Markwell Mirrors has provided the following information relating to its trading Operations for the year ended 30 June:

	2015	2016
Cost of Goods Sold	\$ 90 000	\$ 100 000
Average stock	25 000	20 000

The Stock Turnover would be calculated as is shown in Figure 19.4.

Figure 19.4 Calculating Stock Turnover

2015		2016	
STO	=	STO	=
	$\frac{25\,000 \times 365}{90\,000}$		$\frac{20\,000 \times 365}{100\,000}$
	=		=
	101 days*		73 days

* Rounded to nearest day

The figures indicate that in 2015, it took an average of **101 days** to sell stock. The following year, Stock Turnover **decreased favourably** by 28 days; it only took **73 days** (on average) to turn stock into sales in 2016.

In 2016, Markwell Mirrors not only *sold more stock* (as is shown by the increase in Cost of Goods Sold), but it *held less stock on hand* (\$25 000 in 2015, down to \$20 000 in 2016). Both factors are responsible for the improvement in Stock Turnover.

Assessing Stock Turnover

In the preceding example, we used the Stock Turnover from a *previous period* to identify an improvement. In terms of assessing whether Stock Turnover is satisfactory, it can be compared against the *budgeted figure*, or the Stock Turnover of *similar firms*.

An assessment of Stock Turnover must also consider the nature of the goods sold. Goods that are perishable, such as fresh produce, or susceptible to technological obsolescence should have a fast Stock Turnover so they are not subject to stock loss or stock write-down issues. Relatively cheap items should also be sold much faster than more expensive items, such as luxury cars.

Stock Turnover too slow

If Stock Turnover is too slow (that is, a high number of days), the firm will be less able to generate sales and, therefore, less able to generate cash inflows (from Cash Sales and Receipts from Debtors) in time to meet debts as they fall due. This could be caused by a decrease in the level of sales (due to general economic conditions, seasonal factors, stock quality or competition) or an increase in the level of stock on hand (due to ordering more stock than is required).

In this case, the business may need to:

- employ strategies to *increase sales*, such as advertising, changing selling prices or changing the stock mix (see Chapter 18 for strategies to increase sales)
- *decrease the level of stock on hand* by ordering less, ordering smaller amounts more frequently (just-in-time ordering) or replacing slow-moving stock lines.

Stock Turnover too fast

It is also possible that Stock Turnover could be too fast. Although the business would be generating high sales, it may be because the selling price is too low, and this would be a loss of potential revenue, and profit. Alternatively, it may be because the firm is holding too little stock. If this is the case, costs such as delivery may be higher (because deliveries are more frequent) and the business could lose the possibility of earning discounts for buying in bulk.

Because it only measures the *average* time taken to sell stock, decisions such as these should not be made on an assessment of Stock Turnover alone. It is important that the owner also analyses the stock cards, so that he or she has detailed information about the speed at which *specific lines of stock* are selling, so that appropriate decisions can be made.

Stock management

There are certain strategies a business owner can employ to ensure that stock is managed wisely to maximise the potential for sales.



Review sales to maintain an appropriate stock mix

What is 'appropriate' may change from season to season, or as tastes and preferences change, so the owner must pay close attention to which stock is selling. Stock lines that are selling well should be expanded, while those that are not should be reduced or even discontinued.

Promote the sale of complementary goods

Complementary goods are add-on sales that are generated to support the original item sold. As part of its assessment of its stock mix, the business should consider what 'extra sales' it can generate from stock that is related in some way. For example, a business selling tents may also sell sleeping bags, inflatable mattresses and gas lights to encourage more sales.

Ensure stock is up to date

Sales of some stock lines will be heavily affected by changes in fashion or technology. In order to maintain sales, stock of these items must be the most current version available: older and out-of-date versions should be discounted for quick sale.

Rotate stock

The positioning of stock in the store can have a significant impact on whether it sells or simply sits on the shelf. Particularly for perishable items, older products should be moved to the front so they are taken first: this will minimise stock loss or write-down issues. At other times, moving an entire stock line to another location within the store may boost its sales.

Determine an appropriate level of stock on hand

Stock levels should be sufficient to meet demand, but not so high that additional storage costs or stock write-down issues (such as damage or technical obsolescence) ensue. Setting a target level for stock also assists in identifying when to reorder.

Strong marketing

Strategies like advertising will hopefully lead to increased sales and faster Stock Turnover for all lines of stock, or for a particular line (which may then attract customers and entice them to buy other items too).

REVIEW QUESTIONS 19.6

- 1 **State** what is measured by Stock Turnover (STO).
- 2 **Show** the formula to calculate Stock Turnover.
- 3 **Explain** why fast Stock Turnover is beneficial for liquidity.
- 4 **State** two actions that an owner could take to improve Stock Turnover.
- 5 **Explain** one advantage and one disadvantage of fast Stock Turnover.
- 6 **Explain** the role of stock cards in an analysis of Stock Turnover.
- 7 **Explain** four strategies that businesses should use to manage their stock.

19.7 DEBTORS TURNOVER (DTO)

In businesses that sell predominantly on a cash basis, the time taken to turn stock into sales (Stock Turnover) also measures the time taken to generate cash; as soon as the stock is sold, the cash is collected. Businesses that make credit sales must wait a little longer: first until the stock is sold, then again until the cash is received from debtors. Thus, **Debtors Turnover (DTO)** is an important factor influencing a firm's ability to generate cash to meet its short-term debts as they fall due.

Debtors Turnover (DTO)
the average number of days it takes for a business to collect cash from its debtors

Debtors Turnover: formula

$$\text{Debtors Turnover (DTO)} = \frac{\text{Average debtors} \times 365}{\text{Credit Sales}}$$

Debtors Turnover assesses how effectively the firm has managed its debtors, by calculating the average number of days it takes a firm to collect cash from its debtors. Fast Debtors Turnover means it takes (on average) a few days to collect cash; if cash is collected quickly, it can then be used to meet other debts as they fall due.

Let's return to Markwell Mirrors, with some information added:

EXAMPLE

	2015	2016
Credit Sales	\$180 000	\$200 000
Cash Sales	16 000	17 000
Average debtors	30 000	35 000
Stock Turnover	101 days	73 days
Credit terms offered to customers	30 days	30 days

The Debtors Turnover would be calculated as is shown in Figure 19.5.

Figure 19.5 Calculating Debtors Turnover

2015		2016	
DTO	= $\frac{30\,000 \times 365}{180\,000}$	DTO	= $\frac{35\,000 \times 365}{200\,000}$
	= 61 days*		= 64 days*

* Rounded to nearest day

The figures indicate that in 2015, it took an average of 61 days to collect cash from debtors, but in 2016, this increased unfavourably to 64 days. This means that, on average, it took three days longer to generate cash from debtors in 2016, because although Credit Sales increased, average debtors increased by proportionately more.

STUDY TIP

Be careful when explaining changes in STO and DTO; a decrease in days is an improvement in liquidity.

Turning stock into cash

Given that Markwell Mirrors sells most of its stock on credit, its ability to meet its commitments will depend on the time taken to turn the stock into Sales (STO) and then the time taken to turn debtors into cash (DTO). Thus, in 2016, it will take the business 137 days to turn stock into cash: Stock Turnover 73 days + Debtors Turnover 64 days.

Assessing Debtors Turnover

The three-day increase in the preceding example may not be a significant increase, but the fact that debtors continue to take more than 60 days is of grave concern, because the firm offers only 30 days credit to its customers. Debtors Turnover can be assessed against a *previous period* to identify increases or decreases, but it is the *credit terms offered to customers* (and perhaps the *budgeted Debtors Turnover*) that should be used to determine whether Debtors Turnover is satisfactory.

Even if Debtors Turnover is within the credit terms, it should be noted that it is an average figure; some debtors may be repaying within the credit terms, while others may be paying theirs late. In conjunction with Debtors Turnover, the owner will need to analyse the debtors ledger so that each individual debtor can be managed appropriately. To this end, the business may prepare a **Debtors Ageing Analysis**, which calculates how much is owing from debtors based on the 'age' of the debt.

Debtors Ageing Analysis
a listing of the amount and proportion of debtors according to the length of time they are owing

Debtor management

If Debtors Turnover is too slow (that is, greater than the credit terms offered to customers), the firm will have to wait too long for cash from debtors and thus will be less able to meet its short-term debts as they fall due. In order to avoid, or address, this situation, the owner may consider implementing the following strategies:

Discounts for quick settlement

Offering settlement discounts can encourage debtors to pay well within the credit terms. (Discounts should not be offered on overdue debts!)

Prompt invoicing

Invoices should be sent with the goods so that the customer is immediately aware of the amount owing and the repayment date. Until the invoice is received, the debtor will not begin to even think about paying.

Extensive credit checks

Only offering credit to customers who have a proven record will increase the chances that cash will be received on time.

Reminder notices

Notices should be sent immediately to remind debtors that their payment is overdue, progressing from friendly reminders to threatening legal action. Reminders may take the form of a copy of the invoice, or a statement of account that has the outstanding amount clearly shown as overdue.

Threats of legal action

The threat of court action can sometimes prompt payment, but legal action can be a long and costly process. (It also signals the end of the relationship with the debtor, but perhaps debtors who pay this late are undeserving of further Credit Sales!)

Debt collection agency

Debt collection agencies can employ practices ranging from annoying a late payer by persistent telephone contact to embarrassment at their place of work.

Threats of not providing credit in the future

Debtors who have not paid their current debts should be refused further credit until the amount outstanding is received.

REVIEW QUESTIONS 19.7

- 1 **State** what is measured by Debtors Turnover (DTO).
- 2 **Show** the formula to calculate Debtors Turnover.
- 3 **Explain** why Debtors Turnover is crucial to an assessment of liquidity.
- 4 **Explain** the importance of credit terms offered to customers in assessing Debtors Turnover.
- 5 **List** the strategies a business could use to improve its Debtors Turnover, in the order in which they should be implemented.

19.8 CREDITORS TURNOVER (CTO)

Of all the obligations a trading firm must meet, the most persistent is paying for stock. If stock is purchased for cash, the business will leave itself no time to sell the stock and collect the cash before the payment must be made. On the other hand, credit purchases allow the firm some time to sell the stock and collect the cash before the creditor must be paid. However, it is still important that creditors are paid on time.

Creditors Turnover: formula

$$\text{Creditors Turnover (CTO)} = \frac{\text{Average creditors} \times 365}{\text{Credit purchases}}$$

Creditors Turnover (CTO) the average number of days it takes for a business to pay its creditors

Creditors Turnover (CTO) measures the average number of days taken to pay creditors, indicating the effectiveness of the firm in managing its creditors.

Returning to Markwell Mirrors:

EXAMPLE

	2015	2016
Credit purchases	\$ 70 000	\$ 90 000
Average creditors	10 000	12 000
Stock Turnover	101 days	73 days
Debtors turnover	61 days	64 days
Credit terms offered to customers	60 days	60 days

The Creditors Turnover would be calculated as is shown in Figure 19.6.

Figure 19.6 Calculating Creditors Turnover

2015		2016	
CTO	= $\frac{10\,000 \times 365}{70\,000}$	CTO	= $\frac{12\,000 \times 365}{90\,000}$
	= 52 days*		= 49 days*

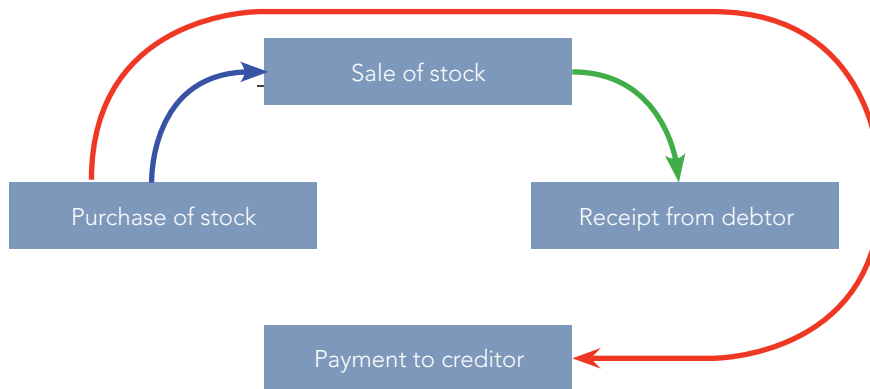
* Rounded to nearest day

The figures indicate that in 2015, creditors were paid every **52 days**; that is, eight days before the credit terms expired. In 2016, this **decreased** by three days to **49 days**; that is, 11 days shorter than the credit terms allowed. This was because, although credit purchases and average creditors increased, average creditors increased by a smaller proportion.

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.

Figure 19.7 shows this relationship between Stock Turnover, Debtors Turnover and Creditors Turnover.

Figure 19.7 Cash cycle

The days between the purchase of stock and sale of stock are measured by the **Stock Turnover**; the days between the sale of stock and the receipt from the debtor are measured by the **Debtors Turnover**; and the days between the purchase of the stock and the payment to the creditor are measured by the **Creditors Turnover**.

In this example, slower Debtors Turnover was more than offset by much faster Stock Turnover, leading to a decrease in the number of days taken to turn stock into cash. With a decrease in the numbers of days to turn stock into cash, cash was available more quickly, so the business was able to pay its creditors more quickly, leading to faster Creditors Turnovers.

Assessing Creditors Turnover

Creditors Turnover can be assessed against a *previous period* to identify increases or decreases, but in common with Debtors Turnover, it is the *credit terms offered by suppliers* (and perhaps the *budgeted Creditors Turnover*) that should be used to determine whether Creditors Turnover is satisfactory.

If discounts are offered, and the cash is available, then paying early may be beneficial. However, if discounts are *not* available there is no incentive to pay early, Creditors Turnover should be as close as possible to the credit terms. This will mean the business retains cash longer, and can use it to meet other payments as they fall due.

At the same time, Creditors Turnover should not exceed the credit terms offered by the supplier, or penalties may be incurred, such as those outlined below.

Interest charges on late accounts

Interest charges would decrease profit and require an even greater cash outflow. This would have to be stipulated in the credit contract.

Removal of credit facilities

With credit facilities withdrawn, the business would have to pay cash for its stock, or may not be able to purchase stock at all.

Reduction in credit rating

This may make it difficult to establish lines of credit in the future if the business has a poor history of repaying its debts.

In most cases, a firm will want its cash inflow (from STO and DTO) to be as fast as possible (that is, the lowest number of days possible), whereas it will want to pay its creditors as slowly as possible (that is, 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, collect the cash and repay its creditors.

REVIEW QUESTIONS 19.8

- 1 **State** what is measured by Creditors Turnover (CTO).
- 2 **Show** the formula to calculate Creditors Turnover.
- 3 **Explain** the relationship between Stock and Debtors Turnover, and Creditors Turnover.
- 4 **State** three negative consequences of exceeding the credit terms offered by suppliers.



WHERE HAVE WE BEEN?

- Liquidity refers to the ability of a business to meet its short-term debts as they fall due.
- The Budgeted Cash Flow Statement is essential to an analysis of liquidity, as it details all expected cash inflows and cash outflows, and states categorically whether the business will be able to meet its cash obligations for the coming year.
- The Working Capital Ratio and Quick Asset Ratio assess the level of liquidity, and should be at least 1:1.
- Stock Turnover, Debtors Turnover and Creditors Turnover assess efficiency: the ability of the firm to manage its stock, debtors and creditors.
- Stock management strategies are determining an appropriate level of stock on hand; maintaining an appropriate stock mix; rotating stock; ensuring stock is up-to-date; and promoting the sale of complementary goods.
- Debtor management strategies are the use of discounts for quick settlement; prompt invoicing; extensive credit checks; reminder notices; threats of legal action; debt collection agency; and threats of not providing credit in the future.
- Debtors Turnover and Creditors Turnover should be assessed against the credit terms.
- Penalties for exceeding credit terms are interest; removal of credit facilities; and reduction in credit rating.

EXERCISES

EXERCISE 19.1 LIQUIDITY

 page 416

At the end of 2014, Hilltop Sporting Goods had \$12 000 cash in the bank, but by the end of 2015, that had fallen to \$3 500, prompting its owner to say that its liquidity had fallen.

Required

- a **State** two reasons why the owner's assertion about the firm's liquidity may be incorrect.
- b **State** two indicators that can be used to assess the level of liquidity.
- c **State** two indicators that can be used to assess the speed of liquidity.



EXERCISE 19.2

WORKING CAPITAL RATIO

 page 417

Wellington Boots has provided the following information from its Balance Sheet as at 31 December 2015:

Current assets	34 000
Current liabilities	42 500

Required

- State** what is measured by the Working Capital Ratio.
- Calculate** the Working Capital Ratio for Wellington Boots as at 31 December 2015.
- Referring to your answer to part 'b', **state** whether the Working Capital Ratio is satisfactory or unsatisfactory. **Justify** your answer.
- Suggest** two actions the owner of Wellington Boots may need to take to ensure the business is able to meet its short-term debts as they fall due.

EXERCISE 19.3

WORKING CAPITAL RATIO

 page 418

Lights of Your Life has provided the following information:

	2015	2016
Working Capital Ratio	1.65:1	1.21:1

Required

- Explain** one reason why the owner should be concerned about the trend in this indicator.
- Explain** one limitation of relying on the Working Capital Ratio to assess liquidity.
- Explain** how the budgeted Cash Flow Statement could be used to assess liquidity.

EXERCISE 19.4

WORKING CAPITAL RATIO AND QUICK ASSET RATIO

 page 419

Madden Homewares has provided the following extract from its Balance Sheet:

MADDEN HOMEWARES
Balance Sheet (extract) as at 30 June 2015

Current Assets	\$	Current Liabilities	\$
Accrued Interest Revenue	300	Bank Overdraft	12 000
Stock Control	47 200	Creditors Control	20 100
Debtors Control	34 100	Accrued Electricity	500
Prepaid Rent	2 150	GST Clearing	900
Total Current Assets	\$83 750	Total Current Liabilities	\$33 500

The Working Capital Ratio of Madden Homewares as at 30 June 2014 was 2.5:1.

Required

- a **State** what is measured by the Quick Asset Ratio.
- b **Explain** why stock is excluded from the calculation of quick assets.
- c **Calculate** the Quick Asset Ratio of Madden Homewares as at 30 June 2015.
- d Referring to your answer to part 'c', **state** whether the Quick Asset Ratio is satisfactory or unsatisfactory. **Justify** your answer.
- e **Explain** how the efficiency of this business in managing its current assets will affect its liquidity.

EXERCISE 19.5
 page 420
WORKING CAPITAL RATIO AND QUICK ASSET RATIO

Jordan's Rugs has provided the following information:

	2015	2016
Working Capital Ratio	2.9:1	4.6:1
Quick Asset Ratio	1.5:1	1.6:1

Required

- a **Explain** one possible reason for the change in the Working Capital Ratio and Quick Asset Ratio from 2015 to 2016.
- b **Explain** one negative consequence if the Working Capital Ratio is too high.
- c **Explain** the circumstances in which this firm is likely to:
 - have no difficulties meeting its short-term debts
 - have difficulties meeting its short-term debts.

EXERCISE 19.6
 page 421
CASH FLOW COVER (CFC)

Hair Today has provided the following information:

	2015	2016
Net Cash Flows from Operations	39 000	35 000
Average current liabilities	13 000	10 000

Required

- a **Calculate** the Cash Flow Cover for Hair Today for 2015 and 2016.
- b Referring to your answer to part 'a', **explain** whether liquidity has improved or worsened from 2015 to 2016.
- c **Explain** the cause(s) of the change in the Cash Flow Cover from 2015 to 2016.
- d **State** two other pieces of information from the Cash Flow Statement that would assist in the assessment of liquidity.
- e **Explain** why it is important for liquidity that Net Cash Flows from Operations is positive.



EXERCISE 19.7

LEVEL OF LIQUIDITY

 page 422

e-Comms and Virtual World both sell computer systems, and have provided the following information for 2015:

	e-Comms	Virtual World
Working Capital Ratio	1.2:1	5.3:1
Quick Asset Ratio	0.75:1	3.4:1
Cash Flow Cover	4.6 times	1.25 times

Required

- Explain** why the Working Capital Ratio of each firm is higher than its Quick Asset Ratio.
- Explain** one reason why Virtual World should be concerned about its Working Capital Ratio.
- Explain** how the Balance Sheet of Virtual World as at 31 December 2015 could assist in assessing its liquidity.
- Discuss** whether e-Comms will be able to meet its short-term debts as they fall due.
- Identify** one other piece of information that would assist in assessing the liquidity of e-Comms. **Justify** your answer.

EXERCISE 19.8

STOCK TURNOVER

 page 423

Orlando's Blooms is a flower shop operating in Horsham. It has provided the following information relating to its stock for 2016:

Cost of Goods Sold	195 000
Average stock	8 000
Budgeted Stock Turnover	4 days

Required

- State** what is measured by Stock Turnover.
- Calculate** Stock Turnover for Orlando's Blooms for 2016.
- Referring to your answer to part 'b', **state** two reasons why the owner would consider this Stock Turnover to be unsatisfactory.
- Explain** how slow Stock Turnover can have negative consequences for:
 - profitability
 - liquidity.
- State** one action the owner could take to improve Stock Turnover without affecting Gross Profit.

EXERCISE 19.9

STOCK TURNOVER

 page 424

The Light House sells a huge variety of lights and lamps as well as candles, candlesticks and other decorative items. The owner has provided the following information relating to its stock for 2015 and 2016:

	2015	2016
Stock Turnover	42 days	33 days
Average stock	34 000	30 000

Required

- Explain** why the owner would be pleased with this trend in Stock Turnover.
- Explain** one negative consequence if Stock Turnover is too fast.
- Explain** the relationship between selling prices and Stock Turnover.
- State** one limitation of using Stock Turnover to assess the effectiveness of stock management.
- Explain** how stock cards can assist an assessment of the effectiveness of stock management.

EXERCISE 19.10

DEBTORS TURNOVER

 page 425

Ferrante Suits has provided the following information relating to its activities for 2015:

Cash Sales	200 000
Credit Sales	45 000
Average debtors	6 000
Credit terms offered to customers	40 days
Stock Turnover	21 days

Required

- State** what is measured by Debtors Turnover.
- Calculate** Debtors Turnover for Ferrante Suits for 2015.
- Referring to your answer for part 'b', **state** whether Debtors Turnover is satisfactory or unsatisfactory. **Justify** your answer.
- Suggest** two strategies the owner could implement to improve Debtors Turnover.
- Explain** why this firm's Debtors Turnover is unlikely to have a significant impact on its ability to meet its short-term debts.



EXERCISE 19.11

DEBTORS TURNOVER AND STOCK TURNOVER

 page 426

Lowen Lifevests has provided the following information for 2015:

Stock Turnover	46 days
Debtors Turnover	25 days
Credit terms offered to customers	30 days
Credit terms offered by suppliers	60 days
Stock Turnover (2014)	31 days

Required

- Explain** why this firm may have liquidity problems in 2015.
- Identify** two facts that support the claim that stock management has been worse than debtor management in 2015.
- Explain** the importance of stock management in terms of meeting short-term debts as they fall due.
- List** three stock management strategies this firm could implement to improve its Stock Turnover.
- State** one benefit and one cost of offering discounts to debtors.
- Explain** how credit checks can lead to faster Debtors Turnover.

EXERCISE 19.12

CREDITORS TURNOVER

 page 427

Pringle Pumps has provided the following information for 2014:

Credit purchases	91 250
Average creditors	10 000
Credit terms offered by suppliers	30 days
Budgeted Sales revenue	140 000
Sales revenue	100 000

In 2013, Creditors Turnover was 34 days.

Required

- State** what is measured by Creditors Turnover.
- Calculate** Creditors Turnover for Pringle Pumps for 2014.
- State** two reasons why the owner should be concerned about Creditors Turnover in 2014.
- State** two negative consequences of exceeding the credit terms offered by suppliers.

EXERCISE 19.13

STOCK TURNOVER, DEBTORS TURNOVER AND CREDITORS TURNOVER

 page 428

Claire's Clocks has provided the following information relating to its activities for 2015 and 2016:

	2015	2016
Stock Turnover	36 days	33 days
Debtors Turnover	31 days	49 days
Creditors Turnover	51 days	64 days
Credit terms offered to customers		30 days
Credit terms offered by suppliers		45 days
Stock Turnover – industry average		11 days

Required

- a Suggest** two reasons that could explain the improvement in Stock Turnover in 2016.
- b Suggest** two strategies the owner could adopt to encourage late debtors to pay.
- c Explain** how the change in Debtors Turnover has affected Creditors Turnover in 2016.
- d** Referring to one other liquidity indicator, **explain** how this business could avoid liquidity problems without raising further external finance in 2016.

GLOSSARY

accounting equation [p. 23]

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

accounting principles [p. 8]

the generally accepted rules that govern the way accounting information is generated

accrual accounting [p. 10]

calculating profit by comparing revenues earned against expenses incurred in a particular Reporting Period

accrued expense [p. 223]

an expense that has been incurred but not yet paid

accrued revenue [p. 376]

a revenue that has been earned but not yet received

accumulated depreciation [p. 246]

the value of a non-current asset that has been consumed/incurred over its life thus far

advice [p. 7]

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

agreed value [p. 9]

the accepted value of a non-cash asset at the time of its contribution by the owner

analysing [p. 428]

examining the financial reports in detail to identify changes or differences in performance

Analysing Chart [p. 42]

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

asset [p. 13]

a resource controlled by an entity, as a result of past events, from which future economic benefits are expected to flow to the entity

Asset Turnover (ATO) [p. 438]

an efficiency indicator that measures how productively a business has used its assets to earn revenue

bad debt [p. 152]

an expense incurred when a debt is written off because it is deemed to be irrecoverable

balance day adjustment (BDA) [p. 218]

a change made to a revenue or expense account on balance day so that revenue accounts show revenues earned and expense accounts show expenses incurred in a particular Reporting Period

Balance Sheet [p. 24]

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

balancing [p. 51]

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

benchmark [p. 431]

an acceptable standard against which the firm's actual performance can be assessed

budget [p. 388]

an accounting report that predicts/estimates the financial consequences of future events

Budgeted Balance Sheet [p. 403]

an accounting report that predicts assets, liabilities and owner's equity at some point in the future

Budgeted Cash Flow Statement [p. 390]

an accounting report that attempts to predict all future cash inflows and cash outflows, and thus the estimated cash balance at the end of the budget period

Budgeted Income Statement [p. 400]

an accounting report that shows expected future revenues and expenses

budgeting [p. 388]

the process of predicting/estimating the financial consequences of future events

carrying value [p. 249]

the value of a non-current asset that is yet to be consumed/allocated as an expense, plus any residual value

Cash Budget Variance Report [p. 410]

an accounting report that compares actual and budgeted cash flows, highlighting variances

cash deficit [p. 265]

an excess of cash payments over Cash Receipts, leading to a decrease in the bank balance

Cash Flow Cover (CFC) [p. 461]

a liquidity indicator that measures the number of times Net Cash Flows from Operations is able to cover average Current Liabilities

Cash Flow Statement [p. 266]

an accounting report that details all cash inflows and outflows from Operating, Investing and Financing activities, and the overall change in the firm's cash balance

Cash Payments Journal [p. 109]

an accounting record summarising all cash paid during a month

cash receipt [p. 62]

a source document used to verify cash received

Cash Receipts Journal [p. 114]

an accounting record that summarises all cash received during a month

cash surplus [p. 265]

an excess of cash receipts over cash payments, leading to an increase in the bank balance

cheque butt [p. 67]

a source document used to verify cash payments

classification [p. 25]

grouping together items that have some common characteristic

closing the ledger [p. 197]

transferring balances from revenue and expense ledger accounts to the Profit and Loss Summary account so that profit can be calculated

commencing entry [p. 145]

a General Journal entry to establish double-entry records by entering existing asset, liability and owner's equity balances in the ledger accounts

Comparability [p. 12]

accounting reports should be able to be compared over time

Conservatism [p. 10]

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

Consistency [p. 10]

accounting methods should be applied in a consistent manner to ensure that reports are comparable between periods

control account [p. 90]

an account in the General Ledger summarising the transactions recorded in the subsidiary ledger accounts

cost of a non-current asset [p. 251]

all costs incurred in order to bring the asset into a location and condition ready for use, which will provide a benefit for the life of the asset.

Cost of Goods Sold (COGS) [p. 182]

all costs incurred in getting stock into a condition and location ready for sale

cost of stock [p. 308]

all costs incurred in order to bring stock into a condition and location ready for sale

cost price [p. 167]

the original purchase price of stock

credit note [p. 293]

a source document that verifies the return of stock either to a trade creditor or by a trade debtor

Creditors Schedule [p. 91]

a list of the name and balance of each individual account in the Creditors Ledger, added together to enable checking against the balance of the Creditors Control account

Creditors Turnover (CTO) [p. 468]

the average number of days it takes for a business to pay its creditors

cross-reference [p. 39]

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

current asset [p. 25]

a resource controlled by the entity as a result of past events, from which a future economic benefit is expected to flow to the entity *in* the next 12 months

current liability [p. 26]

a present obligation of the Entity arising from past events, the settlement of which is expected to result in an outflow of resources embodying economic benefits *in* the next 12 months

Debt Ratio [p. 434]

a stability indicator that measures the percentage of a firm's assets that are financed by liabilities

Debtors Ageing Analysis [p. 467]

a listing of the amount and proportion of debtors according to the length of time they are owing

Debtors Turnover (DTO) [p. 465]

the average number of days it takes for a business to collect cash from its debtors

depreciable asset [p. 241]

a non-current asset that has a finite life, and must be depreciated over its life

depreciable value [p. 244]

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. 242]

the allocation of the cost of a non-current asset over its useful life

depreciation expense [p. 242]

that part of the cost of a non-current asset that has been consumed in the current Reporting Period

discount expense [p. 126]

an expense, in the form of a decrease in debtors, incurred when cash is received early from debtors

discount revenue [p. 123]

a revenue (in the form of a decrease in creditors) earned when creditors are paid early

double-entry accounting [p. 28]

a system that records two effects on the accounting equation as a result of each transaction

efficiency [p. 428]

the ability of the business to manage its assets and liabilities

Entity [p. 8]

the business is assumed to be separate from the owner and other businesses, and its records should be kept on this basis

equities [p. 23]

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

expense [p. 15]

an outflow or consumption of economic benefits (or reduction in inflows) in the form of a decrease in assets (or increase in liabilities) that reduces owner's equity, except for drawings by the owner

expense control [p. 440]

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

financial data [p. 5]

raw facts and figures upon which financial information is based

financial information [p. 5]

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

Financing activities [p. 266]

cash flows related to changes in the financial structure of the firm

finite life [p. 241]

the limited period of time (usually measured in years) for which a non-current asset will exist

First In, First Out (FIFO) [p. 170]

the assumption that the stock that is purchased first will be sold first

footing [p. 49]

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

General Journal [p. 144]

an accounting record used to record infrequent, non-cash transactions, which cannot be recorded in the special journals

General Ledger [p. 36]

the collective name for the main group of ledger accounts

Going Concern [p. 9]

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

Goods and Services Tax (GST) [p. 60]

a 10% tax levied by the federal government on most purchases of goods (excluding fresh food) and services

Gross Profit Margin (GPM) [p. 442]

a profitability indicator that measures the average mark-up by calculating the percentage of Sales revenue that is retained as Gross Profit

GST refund [p. 96]

a cash receipt from the ATO to refund the excess that occurs when GST on sales is less than GST on purchases

GST settlement [p. 96]

a cash payment made to the ATO to settle the liability that occurs when GST on sales is greater than GST on purchases

Historical Cost [p. 10]

the recording of a transaction at its original cost or value, as this value is verifiable by reference to the source document

horizontal analysis [p. 430]

comparing reports from one period to the next, and identifying the increase or decrease in specific items in the report

Income Statement [p. 203]

an accounting report that details the revenues earned and expenses incurred during the current Reporting Period

Income Statement Variance Report [p. 412]

an accounting report that compares actual and budgeted revenues and expenses, and highlights variations

interpreting [p. 428]

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. 266]

cash flows related to the purchase and sale of non-current assets

ledger accounts [p. 36]

accounting records showing all the transactions that affect a particular item

liability [p. 14]

a present obligation of the entity as a result of past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits

liquidity [p. 428]

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

loss on disposal of asset [p. 348]

where the proceeds from the disposal of an asset is less than its carrying value

materiality [p. 12]

size or significance

memo [p. 74]

a source document used to verify an internal transaction

Monetary Unit [p. 10]

all items must be recorded and reported in a common unit of measurement; that is, Australian dollars

narration [p. 145]

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

Net Profit Margin (NPM) [p. 440]

a profitability indicator that measures expense control by calculating the percentage of Sales revenue that is retained as Net Profit

Net Realisable Value (NRV) [p. 219]

the estimated selling price of stock less any costs involved in its selling, marketing or distribution

Net Sales [p. 301]

sales revenue after the deduction of Sales Returns; that is, sales less Sales Returns

non-current asset [p. 25]

a resource controlled by the Entity as a result of past events, from which a future economic benefit is expected to flow to the entity for *more than* the next 12 months

non-current liability [p. 26]

a present obligation of the Entity arising from past events, the settlement of which is expected to result in an outflow of resources embodying economic benefits *in more than* 12 months

non-financial information [p. 445]

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

Operating activities [p. 266]

cash flows related to day-to-day trading activities

order form [p. 76]

a document requesting the supply of stock or other goods

over-depreciation [p. 346]

occurs when excess depreciation has been allocated over the life of the asset, so that the carrying value of the asset is understated

owner's equity [p. 14]

the residual interest in the assets of the entity after the deduction of its liabilities

period cost [p. 313]

a cost incurred in order to bring stock into a condition and location ready for sale that is not allocated to individual units of stock because there is no logical basis to do so

perpetual system of stock recording [p. 183]

recording stock transactions in stock cards, then conducting a physical stocktake at the end of the Reporting Period to verify the balances of those stock cards

Post-adjustment Trial Balance [p. 228]

a list of all General Ledger accounts and their balances after balance day adjustments have been made

Pre-adjustment Trial Balance [p. 228]

a list of all General Ledger accounts and their balances before balance day adjustments have been made

prepaid expense [p. 220]

an expense paid in advance but yet to be consumed

prepaid revenue [p. 368]

a revenue received but yet to be earned

product cost [p. 307]

a cost incurred in order to bring stock into a condition and location ready for sale, which can be allocated to individual units of stock on a logical basis

profit on disposal of asset [p. 350]

where the proceeds from the disposal of an asset are greater than its carrying value

profitability [p. 428]

the ability of the business to earn profit, as compared against a base, such as Sales, assets or owner's equity

profitability indicators [p. 431]

measures that express an element of profit in relation to some other aspect of business performance

purchase invoice [p. 72]

a source document used to verify a credit purchase of stock or other items

purchase return [p. 292]

the return of stock by our firm to a trade creditor

Purchases Journal [p. 88]

an accounting record that summarises all transactions involving the purchase of stock on credit during a month

purpose of accounting [p. 4]

to provide financial information to assist decision-making

qualitative characteristics [p. 11]

the qualities of the information in accounting reports

Quick Asset Ratio (QAR) [p. 459]

a liquidity indicator that measures the ratio of quick assets to quick liabilities, to assess the firm's ability to meet its immediate debts

recording [p. 6]

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

Relevance [p. 12]

accounting reports should include all information that is useful for decision-making

Reliability [p. 12]

accounting reports should contain information that is accurate, and free from bias or error

reporting [p. 7]

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

Reporting Period [p. 9]

the life of the business must be divided into periods of time to allow reports to be prepared; these accounting reports should reflect the Reporting Period in which a transaction occurs

Return on Assets (ROA) [p. 436]

a profitability indicator that measures how effectively a business has used its assets to earn profit

Return on Owner's Investment (ROI) [p. 432]

a profitability indicator that measures how effectively a business has used the owner's capital to earn profit

revenue [p. 15]

an inflow of economic benefits (or saving in outflows) in the form of an increase in assets (or decrease in liabilities) that increases owner's equity, except for capital contributions by the owner

sales invoice [p. 70]

a source document used to verify a credit sale of stock

Sales Journal [p. 92]

an accounting record summarising all transactions involving the sale of stock on credit during a month

sales return [p. 292]

the return of stock to our firm by a trade debtor

Schedule of Payments to Creditors [p. 400]

a table used to calculate how much cash will be paid to creditors in the budget period as a consequence of credit purchases in the current and previous periods

Schedule of Receipts from Debtors [p. 397]

a table used to calculate how much cash will be received from debtors in the budget period as a consequence of Credit Sales in the current and previous periods

settlement discount [p. 121]

a reduction in the amount repayable by a credit customer in return for early repayment

source documents [p. 6]

paper or electronic documents that provide both the evidence that a transaction has occurred and the details of the transaction itself

special journal [p. 87]

an accounting record that summarises similar transactions

stability [p. 428]

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

statement of account [p. 75]

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. 264]

an accounting report that details cash received and paid during a Reporting Period, and the change in the firm's bank balance over that period

stock [p. 164]

goods purchased by a trading firm for the purpose of resale at a profit

stock card [p. 166]

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. 176]

a revenue earned when the stocktake shows a figure for stock on hand that is more than the balance shown in the stock card

stock loss [p. 174]

an expense incurred when the stocktake shows a figure for stock on hand that is less than the balance shown in the stock card

Stock Turnover (STO) [p. 463]

the average number of days it takes for a business to convert its stock into sales

Stock Write-down [p. 320]

the expense incurred when the NRV of an item of stock falls below its original purchase price

stocktake [p. 173]

a physical count of the number of units of each line of stock on hand

subsidiary ledger [p. 90]

an additional set of ledger accounts kept outside the General Ledger, recording individual transactions for each individual debtor or creditor

trade-in [p. 351]

when a firm uses the proceeds from the sale of a non-current asset to reduce the amount payable for the purchase of a new non-current asset

trading firm [p. 164]

a firm that purchases goods in order to resell them at a profit

transaction [p. 6]

an exchange of goods or services with another party

trend [p. 429]

the pattern formed by changes in an item over a number of periods

Trial Balance [p. 49]

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

under-depreciation [p. 356]

occurs when insufficient depreciation has been allocated over the life of the asset, so that the carrying value of the asset is overstated

Understandability [p. 12]

accounting reports should be presented in a manner that makes it easy for them to be understood by the user

unit cost [p. 309]

the cost price of each individual item/unit of stock

variance [p. 411]

the difference between an actual figure and a budgeted figure, expressed as 'favourable' or 'unfavourable'

variance report [p. 410]

an accounting report that compares actual and budgeted figures, highlighting variances, so that problems can be identified and corrective action taken

vertical analysis [p. 443]

a report that expresses every item as a percentage of a base figure; in this case, Sales revenue

Working Capital Ratio (WCR) [p. 457]

a liquidity indicator that measures the ratio of current assets to current liabilities, to assess the firm's ability to meet its short-term debts

SELECTED ANSWERS

Chapter 2

- 2.2 c Total Assets = \$92 600
 2.3 b Total Assets = \$83 190
 2.4 a Total Assets = \$165 500
 2.6 d Total Assets = \$103 100
 2.7 b Total Assets = \$91 700

Chapter 3

- 3.4 c Trial Balance = \$183 900
 3.5 e Trial Balance = \$37 470
 3.6 d Trial Balance = \$245 130
 3.7 c Trial Balance = \$14 000
 3.8 d Trial Balance = \$272 380
 g Net profit = \$5 240
 h Total assets = \$263 240

Chapter 5

- 5.2 b Purchases Journal: Total Creditors Control = \$54 120
 5.3 e/f Creditors Control (balance) = \$15 950
 5.5 b Sales Journal: Total Debtors Control = \$6 402
 5.6 e/f Debtors Control (balance) = \$9 130
 5.8 a Purchases Journal: Creditors Control = \$2 970
 Sales Journal: Debtors Control = \$3 850
 c/d Creditors Control (balance) = \$4 720
 Debtors Control (balance) = \$8 140
 5.9 c/d Creditors Control (balance) = \$7 260
 Debtors Control (balance) = \$8 525

Chapter 6

- 6.1 b Cash Payments Journal: Bank = \$8 660
 6.2 d/e Creditors Control (balance) = \$9 590
 6.3 b Cash Payments Journal: Bank = \$10 085
 6.4 d/e Debtors Control (balance) = \$6 910
 6.5 c GST Clearing (balance) = \$550 CCR
 6.6 e GST Clearing (balance) = \$600 CCR
 6.7 a Cash Payments Journal: Bank = \$50 162
 d/e Creditors Control (balance) = \$18 150
 6.8 c/d Creditors Control (balance) = \$13 940
 6.9 a Cash Payments Journal: Bank = \$10 427
 d/e Debtors Control (balance) = \$1 815
 6.10 c/d Debtors Control (balance) = \$5 720
 6.11 b Bank (balance) = \$4 580 CR
 GST Clearing (balance) = \$560 CR
 c Trial Balance = \$242 050
 6.12 d/f Creditors Control (balance) = \$6 380
 Debtors Control (balance) = \$11 440

CHAPTER 7

- 7.2 d Total assets = \$51 250
 7.12 e Stock Control (Balance) = \$8 855

CHAPTER 8

- 8.8 b Net profit = \$15 500
 f Total assets = \$174 500
 8.9 a Net profit = \$300
 d Total assets = \$64 600
 8.12 d Stock Control (balance) = \$10 530
 Debtors Control (balance) = \$22 000
 e Net profit = \$20 520

CHAPTER 9

- 9.3 e Total equities = \$68 700
 9.4 b Net profit = \$24 000
 9.5 d Net loss = (\$880)
 g Total assets = \$44 570
 9.6 c Net profit = \$2 600
 f Total assets = \$165 300
 9.7 c Net profit = \$920
 g Total assets = \$40 320
 9.8 d Net profit = \$24 910
 f Total assets = \$238 300

CHAPTER 10

- 10.11 c Trial Balance = \$194 970
 e Net profit = \$2180
 f Total assets = \$96 650
 10.12 c Trial Balance = \$480 530
 e Net profit = \$52 550
 g Total assets = \$311 500
 10.13 c Trial Balance = \$172 120
 f Net profit = \$26 260
 g Total assets = \$113 670

CHAPTER 11

- 11.10 c Trial Balance = \$288 150
 e Net loss = (\$8250)
 h Total assets = \$84 450
 11.11 b Trial Balance = \$204 220
 e Net profit = \$19 880
 g Total assets = \$79 100

CHAPTER 12

- 12.1 a/b Bank Balance at End = \$2900 DR.
 12.10 b Bank Balance at End= (\$530)
 12.11 b Bank Balance at End= (\$7950)
 12.12 b Bank Balance at End= \$57 800
 c Net loss = (\$1350)
 12.13 a/b Bank Balance at End= (\$560)
 12.14 c Debtors Control (balance)
 = \$56 000
 d Bank Balance at End= \$10 860

CHAPTER 13

- 13.2 e Freezing Fridges (balance) = \$5434
 13.4 d Mega World (balance) = \$1355
 e Gross profit = \$480
 13.5 d Stock Control (balance at Nov 1) = \$46 000
 Creditors Control (balance at Nov 1) = \$28 500
 GST Clearing (balance at Nov 1) = \$2 400
 13.6 c Debtors Control (balance at Dec 1) = \$30 120
 Stock Control (balance at Dec 1) = \$16 600
 GST Clearing (balance at Dec 1) = \$970
 d Gross profit = \$18 800
 13.8 b Debtors Control (balance at Jul 1) = \$4 290
 Creditors Control (balance at Jul 1) = \$4 268
 Stock Control (balance at Jul 1) = \$7 820
 GST Clearing (balance at Jul 1) = \$363
 d City of Hume (balance) = \$924
 e Net loss = (\$3 379)

CHAPTER 14

- 14.5 c Adjusted Gross Profit = \$1 100
 14.8 e Adjusted Gross Profit = \$1 900
 14.12 f Adjusted Gross Profit = \$19 500

CHAPTER 15

- 15.14 b Trial Balance = \$131 440
 d Net profit = \$9 440
 f Total assets = \$72 950

CHAPTER 16

- 16.9 c Trial Balance = \$247 975
 d Net profit = \$10 415
 f Total assets = \$185 925
 16.10 f Current Assets = \$109 180
 Current Liabilities = \$93 500

CHAPTER 17

- 17.1 b Bank Balance at End = (\$7330)
 17.2 b Bank Balance at End:
 Jan. = \$120
 Feb. = (\$15 160)
 Mar. = \$4 910
 17.5 c Net Cash Flows from Operations:
 Jan. = \$120
 Feb. = (\$15 160)
 Mar. = \$4 910
 17.6 a Bank Balance at End= \$42 480
 b Net profit = \$5 250
 d Stock Control (balance) = \$21 200
 GST Clearing (balance) = \$2 120
 f Total assets = \$76 250
 17.7 c Bank Balance at End= \$28 135
 d Net profit = \$9 745
 f Stock Control (balance) = \$18 700
 GST Clearing (balance) = \$1 880
 g Total assets = \$110 755
 17.15 e Bank Balance at End = \$25 108
 g Stock Control (balance) = \$49 900
 GST Clearing (balance) = \$7 220
 h Current Assets = \$98 358
 Current Liabilities = \$55 220
 17.16 c Net profit = \$25 220
 e Total assets = \$69 320