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GEORGE BRIGHT and MICHAEL HERBERT

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PREFACE

This book aims to provide you with a comprehensive introduction to the principles and practice of book-keeping and accounting. Part I introduces you to the world of double entry book-keeping and the important techniques involved in the preparation of the final accounts of a business. Part II moves on to the preparation of final accounts for a range of different organisations including partnerships, limited companies, manufacturing firms and clubs. Part III introduces you to the world of cost and management accounting and covers important topics such as the analysis of business performance, cash flow, product costing and budgetary control. This range of subject-matter makes the book relevant to many people already working in business as well as to the student of accounting.

The book is genuinely capable of use as a self-contained course of study or as a classroom text. It has a number of important features.

1 We have made extensive use of case studies. These are based on real situations and are intended to illustrate the way in which accounting is relevant to the business world.
2 Each chapter concentrates on the main principles of the topic being dealt with - unnecessary detail is omitted. This makes it easier for you to identify the main points and to gain confidence in the subject.
3 A lot of practical exercises are included both in and at the end of each chapter. An answer section is given at the back of the book. It is important for your learning that you make a good effort at each question before checking your answer.
4 The book also includes a number of activities. These have either been used to ask you to think about a situation drawing upon your own experience and imagination or to ask you to carry out researches of various kinds which would help you to relate the material in the book to the business world.
5 The Appendix contains an extensive range of GCSE examination questions.

The book covers material which is found in all the major introductory level accounting syllabuses, including GCSE, RSA I and II, LCCI 1 and 2 and GCE A level. We have tried to make the content as interesting and as straightforward as possible to help you achieve real confidence in mastering this important and challenging subject.

GEORGE BRIGHT
MICHAEL HERBERT

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PART I

BOOK-KEEPING AND ACCOUNTING FOR A SOLE TRADER

CHAPTER 1

BUSINESSES AND BALANCE SHEETS

1.1 THE NEED FOR ACCOUNTS

Most people associate accounting with the world of business. To see what it involves we can divide it into three parts.

First, it concerns the recording of transactions. This aspect is known as book-keeping because, at one time, most records or accounts were kept in books. Second, it involves reporting to people wanting information about the state of the business. This is called financial accounting because such reporting provides information in monetary or financial terms. Third, it is associated with controlling what is happening within a business. This is generally known as management accounting because managers are the people responsible for making the decisions which control what goes on.

There is nothing so special about accounting that it must be done only by accountants. We all do it, or could do it. Take for example John, a sixth-form student who works in a shop each Saturday. Most of his earnings used to disappear fairly quickly on clothes, records and concerts. Recently, however, John started to save. He wanted a motorbike. His parents agreed to buy him one for his next birthday, which was six months away, provided that by that time he could show them that he would be able to pay all the usual expenses involved in running a bike.

To help John do this, his mum gave him a pocket book. He wrote down his earnings each week and kept a note of his spending. When his birthday came he was able to show his parents exactly how much he had saved and how he had done it. By then he had also looked into the costs of running a motorbike including fuel, road tax, insurance and repairs. Writing down his savings for the previous six months on one side of a sheet of paper and the estimated running costs on the other, he was able to prove to his parents that he would indeed be able to run the bike - just.

John got his bike. He didn't throw away his pocket book, though. He soon found how useful it was in helping to keep a check on what it cost him to run the bike. He was often having to decide things like whether he should use the bike every day to travel to school (his bus pass was free); when to have the bent mud-guard repaired; who would service the bike most thoroughly and yet not charge too much; and how much he could put towards the crash helmet his girlfriend needed. He was able to use the information in his pocket book to help him make these decisions.

Exercise 1.1

When did John act as (a) book-keeper; (b) financial accountant; (c) management accountant?

Even if you do not use what you learn from this book in a business situation you may find it useful in your personal life. See if you can prove this yourself by attempting the following.

Activity

Make a list of ways in which you could (or already do) benefit from using basic accounting techniques.

There are many benefits you might mention. On the book-keeping side it is always helpful to keep records of receipts and payments made through a bank account. When you receive your statement it is then much easier to check it. A record of spending on particular items might also be useful, e.g. heating, motoring or purchases of food for the freezer. It is sometimes helpful to prpare a clear statement of your financial position. Such a statement may help to persuade a bank manager to give you a loan or it might help to prove to yourself or others how much better off you are after giving up smoking. So drawing up a report rather like a financial accountant is useful. Everybody has to make decisions and very often these involve money. A housewife who is finding it difficult to make ends meet might be faced with the task of deciding whether her children should have school lunches or take their own. Another might have to decide whether they can afford a holiday this year and, if so, what sort. Simple records and brief statements will be very useful in making such decisions. No matter that they are written on the back of an envelope! Perhaps management accounting seems too grand a title for it. What's in a name? The word 'economics' derives from a Greek word meaning management of a household. Housewives are managers, so why shouldn't they use the techniques of management accounting?

Let's turn now to the business world. There are many different sorts of businesses. One way of classifying them is according to how they are owned. Among the most numerous are sole traders, who are also known as sole proprietors or sole owners. Here one person owns the business. Other types include partnerships, limited companies, co-operatives and public corporations.

In Part I of this book we will be concerned only with the accounts of businesses owned by one person.

A typical example of such an organisation is the building and decorating business owned by Henry Plunkett. Besides general repairs and decorating he also does quite a number of extensions. He employs six people. Try to acquaint yourself with the administration of this sort of business by attempting the following.

Activity

Make a list of different sorts of information that such a business will need to record.

I would expect him to keep records or accounts of purchases of materials, payments made to suppliers of materials and services, invoices sent to customers, money received from customers, possessions of the business such as cash, premises, equipment and vehicles, money owed to creditors, e.g. the bank, wages paid to employees, income tax and national insurance deducted from employees' wages and value added tax paid on purchases or charged to customers.

Your list may be longer than mine but even if it only contains a few items it is still clear that records will need to be kept. Therefore book-keeping is essential.

Financial accounting is also of vital importance to Henry's firm. He will need to know how successful he is. This can be shown best by preparing a profit and loss account, which measures the amount of profit or less made in a particular period of time, usually a year. Henry is not the only one who will be interested in what it reveals. The Inspector of Taxes (Inland Revenue) will want to know. People who own businesses do not pay tax weekly or monthly as do employees under the 'pay-as-you-earn' scheme. Their tax is assessed according to the amount of profit earned each year.

Henry would also like to know how much his business is worth. One way of showing this is by preparing a balance sheet. This shows the financial position of the business at a particular moment of time. In this respect it differs from the profit and loss account which covers a period of time.

Exercise 1.2

Ginger Jenkins has started a business similar to that of Henry. He does not keep proper records but reckons that, as long as he has plenty of cash coming in, he must be doing all right and therefore has no need of financial accounts or accountants. Who will dispute Ginger's freedom to run his business this way?

To be successful, Henry Plunkett will also find management accounting a great help as decision making is important in all businesses. Some people have a knack for making the right decisions, relying mainly on intuition.

Others frequently choose incorrectly. However lucky a businessman may be, decisions made with knowledge of all relevant facts, including financial information, have most chance of being right in the long run.

The decisions Henry will have to make will be many and varied. Consider just one. Henry has been invited to submit an estimate to convert a farmer's barn into a home for his son and daughter-in-law. How will Henry go about this task? To begin he will need to know what the end product is to be like and what materials are to be used in its construction. An architect's drawing will provide much of the information he needs.

Given this, he will be able to calculate the amount of materials needed and the number of hours he thinks it will take to complete. He can then work out the cost of these materials and the amount of wages he will have to pay his men while they are working on this job. Information on the cost of materials will come from catalogues and recent invoices received for similar materials. For the wages cost he will be able to consult records of the various wage rates paid to his men, some of whom will be skilled and others unskilled. He will, of course, want to earn a profit for himself in return for taking on the risk involved in carrying out the job. Other considerations that might affect the final toal figure he gives for the job include how badly he needs the work and whether it is likely that other firms will be able to give an estimate below his. Henry's experience will be invaluable in drafting the estimate for the farmer. Without the facts provided by his accounting records, however, it is clear that the preparation of the estimate would be much more of a hit-or-miss affair.

Activity

Think of some other decisions that Henry might have to make in managing his business. Consider if accounting would help him in making them.

Decisions you could mention include: should he take on extra staff when trade is booming or rely on subcontracting some of the work to other firms? Should he purchase or lease the new equipment if needed? If he decides to purchase, what is the best way of paying for it? Should he expand with money that will have to be borrowed? What is the best way of persuading his customers to pay him more promptly? Which is better, buying materials for cash to obtain lower prices or on credit to give him time to pay? Of course there are many more, but whatever management decision you thought of it is inevitable that it would best be made by reference to book-keeping records and the financial accounts. In larger businesses management accountants would probably draft individual statements to assist in making each such decision. In smaller businesses this is less likely.

Having seen the use of accounting to all of us as individuals and to business owners like Henry, it should not be too difficult for you to look further afield for other examples of its use. For instance many businesses are much larger than Henry's and are involved in different activities. Many employees in such businesses will be working with accounts and not all of them will be in the financial department. They may well be employed in marketing, production or personnel departments.

There are other forms of business ownership. Partnerships need accounts to satisfy each partner that the profits are being fairly divided and companies are accountable to their shareholders. Local and central government provide a variety of services and will need accounts, not least for keeping a check on the money they receive from ratepayers and taxpayers.

Exercise 1.3

3.1 Complete the following sentences:
- (a) Recording transactions is known as ________________ because at one time most accounts were kept in ________________ .
- (b) Reporting on the state of a business by means of statements such as ______________ and ______________ accounts and balance sheets is known as ________________________________ .
- (c) Using accounts as an aid in controlling and managing a business is known as ________________________________ .
- (d) The above activities together make up the subject matter of ________________________ .

3.2 What sort of business, from the point of view of ownership, is that of Henry Plunkett?

3.3 Give three examples of information that a business like Henry's would need to record. In each case say why this information should be recorded.

3.4 Which of the following is unlikely to be involved in any way with accounting: business owner, salesman, wages clerk, personnel manager, marketing director, inspector of taxes, treasurer of a tennis club, housewife?

1.2 STARTING A BUSINESS

When Bill Turner was made redundant he decided that he would never again work for someone else. He wanted to be his own boss! After thinking over a number of ideas he decided that he would like to purchase a shop. The sort of shop he had in mind was a general store which sold a variety of things but which concentrated on food and groceries. He reasoned that these were items which everybody needed and would give his business a reasonable amount of safety. Bill's wife, Joan, had been complaining for several years about the dirtiness of the town in which they lived - buying a shop in a Devon village seemed a good way of satisfying both his wife's and his own ambitions.

Selling their semi-detached house realised £72,000 after the mortgage had been repaid to their building society. This, together with Bill's redundancy payment of £10,000, meant that they had a total of £82,000 of their own money to invest in a business.

Many people would have spent a great deal of time talking to shopkeepers, bank managers and business agents before making a decision to spend their £82,000. Not Bill! He had always been quick at making decisions and this time proved to be no exception. He spent one weekend in Devon, looked at five properties and agreed to buy one of them for £96,000. Only then did he approach his bank manager and ask for a loan of £14,000 to meet the difference between the buying price and their available capital.

After listening to Bill rave about the potential of the business, the bank manager looked carefully at a copy of the accounts and agreed to advance the loan. This was made subject to a favourable report from a representative of the bank, which would be completed after visiting the premises.

The business which Bill purchased had been run unsuccessfully for several years. Because of this he had been able to buy it for an amount which just equalled the value of the premises, fixtures and fittings and stock-in-trade. These are called the assets of a business. Assets are basically the possessions of the business on which a money value can be placed. If the business had been more successful the sellers might have been able to demand a price higher than the value of the assets purchased. This would have been to buy something called the goodwill of the business. Goodwill is the benefit obtained from buying a business which has good connections and a good reputation. As the previous owner had not been successful, little or no goodwill existed. Hence Bill was able to buy the business for the agreed value of the assets.

When a new business starts it is a good idea to draw up a statement showing its financial position. One way of doing this is in the form of a balance sheet. Look carefully at the following statement.

Balance sheet of Valuemart as at 1 July 1990

	£		£
Assets		*Sources of finance*	
Premises	84,000	*Proprietor's capital*	82,000
Fixtures and fittings	7,000		
Stock	5,000	*Liabilities*	
Cash at bank	1,900	Bank loan	16,000
Cash in hand	100		
	98,000		98,000

From this we can derive a definition of a balance sheet. It is a statement drawn up at a particular date (in this case 1 July 1990) to show the value of the assets of the business (which Bill had decided to call Valuemart) and how the finance for these assets was obtained.

'Assets' are those possessions or advantages a business has on which a money value can be placed. There are, of course, some advantages on which it is not possible to place a definite money value; for instance the effort that Bill expects to put into the business or the hard work he expects from Joan. 'Stock' is the name given to any item which is bought and sold with the intention of making a profit.

Examples of items which might count as 'fixtures and fittings' in a general store are: shelving, counters, displays, fridge and the till.

The sources of finance may be divided into two types: first the finance provided by the owner, which is called the proprietor's capital or sometimes simply the capital. In this case the proprietor is Bill Turner himself. His wife Joan was prepared to help him but did not want to be considered as an owner of the business. The second source of finance is called liabilities. This is the money owing to people outside the business which has been used to finance some of the assets of the business. In this case the only liability is to the bank which agreed to lend Bill some of the money he needed to buy the business. People, or other organisations like the bank, to whom money is owed are called the creditors of the business.

You may have remembered that Bill needed a loan of only £14,000 to top up his own capital of £82,000 by enough to buy the business for £96,000 (see page 8). The loan in the balance sheet is £2,000 greater than he originally requested. If you look carefully at the balance sheet you will see that there are two assets which together are worth £2,000 and which were not actually purchased by Bill. These are cash in hand and cash at bank. All businesses need both very ready money (cash in hand) and money which can be obtained fairly quickly (cash in the bank). It is likely that Bill will have realised that and returned to his bank manager with a request for a further loan. It is also possible that the bank manager himself will have suggested Bill should have the extra finance which should be kept readily available. In any case it is clearly necessary for a business to have some money for use when needed. For example more stock may be required from the local cash-and-carry or a broken window might have to be repaired.

The balance sheet on page 8 is only one style of layout. Those of you who have seen a balance sheet before might be surprised by it for one of two possible reasons.

- You could be used to seeing the assets to the right of the sources of finance. That is the traditional style of a horizontal balance sheet and is still occasionally found today.
- You might be used to seeing the balance sheet displayed vertically down the page. This style will be introduced later.

We will use the horizontal method in this chapter because of its value in emphasising the relationship between assets and their sources of finance. In any business the value of assets equals the value of capital and liabilities that make up the sources of finance. This known as the book-keeping equation and we can use it to reduce Bill Turner's opening balance sheet to the simple form of;

assets 98,000 = *capital* (82,000) + *liabilities* (16,000)

If we know the value of two items in this equation it is always possible to calculate the third. The equation can be turned around to read:

assets less *liabilities* = *capital*
or *assets* less *capital* = *liabilities.*

Exercise 1.4

To make sure you understand this equation complete the table below by filling in the missing figure for each of the four separate businesses.

Business	*Capital* £	*Liabilities* £	*Assets* £
(a)	10,000	5,000	
(b)		16,000	30,000
(c)	12,000		37,000
(d)		60,000	50,000

The first three calculations should have presented no problems. If you had difficulty reread the section about the book-keeping equation. The fourth calculation perhaps required a little more thought. What has happened here is that the business concerned has been so unsuccessful that its assets are not sufficient to pay off all the liabilities. Thus if the assets were sold for £50,000 some of the creditors of the business would not receive the money that was due to them. £10,000 would be left unpaid and the owner of the business would be responsible for meeting these extra debts himself. The 'negative capital' is called a deficiency of capital.

If you are not happy working with negative figures you could rewrite the book-keeping equation to read:

assets + *deficiency* = *liabilities.*

But remember, this only applies when the liabilities are greater than the assets.

A firm which has liabilities greater than its assets is said to be insolvent. Naturally this sort of position would not be allowed to continue for very long. Once the creditors knew about it they would be afraid things would become worse and that they might lose even more of what was owed to them. The bankruptcy court is only a small step away for a businessman who finds himself in such a difficult financial position.

1.3 THE BALANCE SHEET

The balance sheet below relates to one of the businesses Bill Turner looked at but did not buy. Compare it with the opening balance sheet of Valuemart on page 8.

Balance sheet of Rivendale General Store as at 31 May 1990

	£	£		£
Assets			***Sources of finance***	
Fixed assets			*Proprietor's capital*	85,000
Premises	80,000			
Furniture and fittings	6,000		*Long-term liabilities*	
			Mortgage on premises	10,000
		86,000	*Current liabilities*	
			Trade creditors	1,500
Current assets				
Stock-in-trade	7,000			
Debtors	2,000			
Bank	1,000			
Cash	500			
		10,500		
		96,500		96,500

First, concentrate on the assets side of the balance sheets.

You will notice that the assets in the second balance sheet are grouped into two sections: fixed assets and current assets. **Fixed assets** are those possessions which are relatively permanent. They are used over a reasonable amount of time and are not constantly changing in value. Fixed assets are needed to enable the business to operate and make a profit, but they are not kept with the set purpose of making a profit on them.

Other typical fixed assets include vehicles, machinery, and equipment such as a computer or word-processor.

Current assets are also sometimes known as 'circulating' assets. They are the assets which are constantly changing in value and it is through the movement of these that the proprietor of a business intends to make a profit. As more stock is bought so this asset increases in value. If it is sold then it decreases in value. At the same time, either the amount of cash in hand or cash at bank will be changing as the business receives money or makes payments.

One new asset appears in the Rivendale balance sheet. This is debtors. Clearly debtors are not a possession in the same sense as property or cash but it is an advantage on which a money value may be placed. It is an advantage because the majority of debtors do pay their debts. Since businesses normally expect their debtors to pay them relatively soon, it is regarded as a current rather than a fixed asset.

You should beware of thinking that all assets can be classified as either fixed or current and remain the same whatever business is involved. It is the *use* to which the asset is put which determines whether it should be regarded as fixed or current.

Exercise 1.5

Where would you place motorcars in the balance sheet of the following businesses? Are they fixed or current assets?

(a) The cars used by the salesmen of a confectionery firm.
(b) The cars on the forecourt of a garage with 'for sale' on each windscreen.

The assets in the balance sheet of Rivendale have been displayed in order of permanence. The fixed assets are followed by the current assets. Property, which probably takes longer to turn into cash than any other asset, is shown first and cash comes last. This is the normal practice in the UK, though in some other countries the assets are shown in order of liquidity. Then cash comes first and those assets which can be turned into cash follow in the order of how quickly they can be turned into cash

Now compare the finance side of Rivendale's balance sheet with that of Bill Turner. You will see that the former contains two types of liabilities: long-term and current. Liabilities are finance provided by people or other organisations who are not owners of the business. The money has to be repaid at some time. The distinction between long-term and current is usually made on the basis of the amount of time allowed to repay the amount due. **Current liabilities** are due to be repaid within one year. Trade creditors are the suppliers from whom Rivendale has purchased its stock-in-trade on credit. Usually suppliers will allow a maximum of only one or two months' credit before payment is demanded. Trade creditors must therefore be regarded as current liabilities. **Long-term liabilities** are those which are not expected to be repaid during the current year, e.g. a mortgage.

In the absence of information abut the date of repayment you should assume that a loan is a long-term liability and a creditor is a current liability.

Confusion often arises over bank overdrafts. Clearly this is money which the business owes to the bank. Should it be regarded as a long-term or current liability? The correct answer is current because a bank may recall this money on demand at any time. It is true that many firms are sometimes allowed by banks to keep their overdrafts over a relatively long period. This does not make them a long-term liability, however, because the owner of the business can never be *sure* that the bank might not demand immediate repayment.

Before attempting the next exercise, make certain that you understand each of the following: balance sheet, the book-keeping equation, proprietor's capital, long-term liabilities, current liabilities, fixed assets and current assets. Are you happy? If so, you should be able to answer the following.

Exercise 1.6

The information that follows refers to the business of Peter Bright on 31 January 1990: freehold property £40,000, debts due to suppliers £2,350, stock £6,800, cash £180, bank overdraft £1,000, debts due from customers £1,900, furniture and fittings £3,000, delivery vehicle £2,000, mortgage on property (10 years) £5,000, loan from ABC Finance Limited (5 years) £3,000.

Draft a balance sheet for Peter Bright on the date given. *Advice:* take care to divide your assets and liabilities as you have been shown on page 11. To complete the balance sheet, you will need to calculate one piece of information which has been left out. Refer to the book-keeping equation for help.

1.4 THE BALANCE SHEET IN ACTION

Now that you understand what a balance sheet is, we are going to look at how it changes once a business begins operating.

Remind yourself of the position of Bill Turner's Valuemart (page 8) before he began trading. He has made at least two transactions already. First, he purchased the premises, fixtures and stock from the previous owner. Second, he borrowed £16,000 from the bank. Once trading begins the number of transactions will increase.

Activity

Make a list of transactions that Bill will be undertaking regularly from now on.

Our list includes selling his stock to customers, purchasing more stock from suppliers, making payments for insurances, heating, lighting and rates. He might purchase new equipment and perhaps negotiate for a further loan to pay for it.

There are many more and it is important to realise that the people involved in successful businesses will be busy. They will be dealing with a variety of different transactions. Each time a transaction is made it will affect the business. Let's see how. To simplify things imagine that Bill begins very slowly making only one transaction a day at first. We will also omit the subheadings in the balance sheet.

On 2 July Bill purchased a new fridge for £300, paying for it by cheque. After this transaction his balance sheet would have looked like this:

Balance sheet of Valuemart as at 2 July 1990

	£		£
Premises	84,000	Owner's capital	82,000
Furniture and fittings	7,300	Bank loan	16,000
Stock	5,000		
Bank	1,600		
Cash	100		
	98,000		98,000

One asset, furniture and fittings, has increased in value by £300 while another, bank, has been reduced by the same amount. The balance sheet still balances and the totals are the same as at 1 July. Note, this balance sheet and the ones that follow have been simplified by omitting the division of assets into fixed and current and liabilities into long-term and current.

On 3 July, Bill purchased £500 worth of stock on credit from a supplier. His balance sheet again changed.

Balance sheet of Valuemart as at 3 July 1990

	£		£
Premises	84,000	Owner's capital	82,000
Furniture and fittings	7,300	Bank loan	16,000
Stock	5,500	Trade creditor	500
Bank	1,600		
Cash	100		
	98,500		98,500

This time an asset, stock, has increased by £500 while a new liability, trade creditor, has been increased by the same amount. The balance sheet still balances but this time with totals £500 more than on 2 July.

On 4 July, Bill sold an old fridge, which had been valued at £100 when he bought the business, to a friend for £100. His friend paid £50 in cash and agreed to pay the rest later. Bill's balance sheet then looked like this.

Balance sheet of Valuemart as at 4 July 1990

	£		£
Premises	84,000	Owner's capital	82,000
Furniture and fittings	7,200	Bank loan	16,000
Stock	5,500	Trade creditor	500
Debtor	50		
Bank	1,600		
Cash	150		
	98,500		98,500

On this occasion one asset, furniture and fittings, has been reduced by £100 while there has been an increase in cash of £50 and a new asset, debtor £50, is included. The net effect is that the assets are still worth what they were before the transaction and the balance sheet totals are unchanged.

On 5 July, Bill saw an electronic till reduced to £500 in a sale. The seller would not allow credit and Bill did not want to use any of the money he had available. He managed to persuade his bank manager to lend him the £500 which he used at once to buy the till.

Balance sheet of Valuemart as at 5 July 1990

	£		£
Premises	84,000	Owner's capital	82,000
Furniture and fittings	7,700	Bank loan	16,500
Stock	5,500	Trade creditors	500
Debtor	50		
Bank	1,600		
Cash	150		
	99,000		99,000

His furniture and fittings have increased in value by £500, the value of the till, and the amount he owes to the bank has increased by the same amount. Thus the balance sheet totals £500 more on each side.

On 6 July, Bill started selling and that day he did very well. He sold £300 worth of stock for £400 cash. How did this affect his balance sheet? His stock was reduced in value by £300 but his cash increased by £400. It seems, on first thought, that the balance sheet would not then balance because the assets had increased by £100. However, it must be realised that this £100 represents Bill's profit to date. It is shown in the balance sheet by adding it to his capital. It is extra finance for him to use as he wishes. The balance sheet would now look like this:

Balance sheet of Valuemart as at 6 July 1990

	£		£
Premises	84,000	Owner's capital	82,000
Furniture and fittings	7,700	*add* Profit	100
Stock	5,200		
Debtor	50		82,100
Bank	1,600	Bank loan	16,500
Cash	550	Trade creditors	500
	99,100		99,100

To see if you can keep track of the changes resulting from a series of transactions, attempt the following:

Exercise 1.7

On 1 February 1990 Tom Spear decided to start a mobile greengrocery business. He opened a business bank account with £2,000 of his own money and his balance sheet looked like this:

Balance sheet of Tom Spear as at 1 Feb. 1990

	£		£
Bank	2,000	Capital	2,000

During the next week he made the following transactions:

2 Feb. Negotiated a loan of £500 with his bank manager which was paid into his bank account.
3 Feb. Purchased a motor vehicle for £2,200 from ACE Motors. He paid £1,600 by cheque and agreed to pay the balance within three months.
4 Feb. Withdrew £50 from the bank for use as cash.
5 Feb. Purchased £200 worth of fruit and vegetables, paying for them by cheque.
6 Feb. On his first day of selling he received £120 cash for the sale of £80 worth of fruit and vegetables.

Show his balance sheet on 6 Feb. after all these transactions had taken place. It may help you to do a balance sheet after each transaction.

Of course in most businesses transactions will be taking place with much greater frequency than in the above exercise. There will also be a much greater variety of transactions. This variety will be most evident in businesses which are expanding or already have interests in a range of different activities. Reflect for a moment on this question. How suitable is the balance sheet as a means of recording the large number of different transactions that are taking place continuously?

Some thought should lead you to the conclusion that it is not at all suitable. For a businessman to rewrite his balance sheet after each transaction or even after each week's transactions would be quite time-consuming. In addition it would not provide enough information about the actual transactions. Some other method is needed, therefore, and this will form the subject-matter of the next chapter.

If the balance sheet is so unsuited to reflecting day-to-day changes, why have we used it in that way in this chapter? The answer to my question is that it is an excellent way of learning that:

- every transaction affects a business by altering either the assets or sources of finance or both, while

- the fundamental relationship between sources of finance and assets does not alter.

Understanding these points is central to understanding accounting.

Exercise 1.8

8.1 Complete the following statement. Any transaction causes at least _______ changes within the balance sheet. As a result of these changes the total value of the _________ will still equal the value of ________ ______________ of ________.

8.2 Write down the book-keeping equation on which the balance sheet is based.

8.3 Explain what happens to the items in the book-keeping equation when £200 worth of unfashionable stock is reduced and sold for £120 cash.

8.4 Look back at the balance sheet of Valuemart as at 6 July on page 15 and rewrite it in good style. Assume that the bank loan does not have to be repaid for five years.

CHAPTER 2

DOUBLE ENTRY BOOK-KEEPING

The last chapter demonstrated how any transaction will have two effects on a balance sheet. You should now be able to identify which assets and/or sources of finance are affected by different transactions. In this chapter we will introduce a more efficient way of recording transactions than redrafting a balance sheet after each one. This will be done by means of ledger accounts. You will learn the principles of double entry book-keeping which will enable you to keep a simple set of ledger accounts.

2.1 THE LEDGER

Book-keeping is the part of accounting concerned with recording transactions. The main book used to record these transactions is known as the ledger. At one time all ledgers were bound volumes. Today loose-leaf paper, ledger cards and computer-based systems are also used. Whatever the means used to record transactions, the principles and methods are basically the same.

The ledger contains accounts of each asset and liability of the business as well as the capital of the owner. It also contains other types of account which will be introduced in the next chapter. The word 'account' is usually abbreviated to 'a/c' and means 'a record of'. Each account contains a record of changes in one particular asset, liability or in the capital. The traditional layout of a page in the ledger is shown on page 19.

Note:
- Each page in the ledger is divided clearly into two sides.
- The left-hand side is known as the debit side but is usually abbreviated to 'Dr'. This abbreviation derives from 'Debtor'. a term still used in some texts to describe the left-hand side of the page.
- The right-hand side is known as the credit side and is abbreviated to 'Cr'. The word 'credit' has different meansings in other contexts. When referring to ledger accounts, though it is simply the right-hand side of the account.

Dr			Cash account				4	Cr
date	details	folio	£	p	date	details	folio	£	p

- The name of the account is written at the top of the page, which is numbered for reference purposes. The cash a/c above is on page 4 of the ledger. Some accounts will require more pages than others. The loose-leaf system provides useful flexibility in such circumstances.
- The columns on the debit side are the same as on the credit side. There is space to record the date, brief details and the amount of money involved in a transaction. The folio column is used mainly to provide a cross-reference system. This will be demonstrated later.

Ledger paper and books can be purchased from all good stationers.

Let's turn now to the principles and practice of keeping a ledger. Suppose that Bill Turner, to whom we referred in Chapter 1 decided when he started the business that he would keep a set of ledger accounts. How should he begin? One way is to write down the state of the business on the date he decides to begin his ledger. The easiest way of showing this clearly is by means of a balance sheet. Bill's balance sheet of 1 July 1990 is repeated here for ease of reference.

Balance sheet of Valuemart as at 1 July 1990

	£		£
Assets		*Sources of finance*	
Premises	84,000	Owner's capital	82,000
Furniture and fittings	7,000		
Stock	5,000	*Liabilities*	
Bank	1,900	Bank loan	16,000
Cash	100		
	98,000		98,000

2.2 OPENING AN ACCOUNT

The first step is to open a ledger account for each item in the balance sheet. The value of each asset is placed on the debit side of its own account, while the values of capital and any liabilities are placed on the credit side of their accounts. The date will be that of the balance sheet from which we have taken the figures and in the details column each entry can be described by the term 'balance'. For the time being we will not bother giving each account a page number as the use of the folio column for cross-referencing will be dealt with later. Apart from the fact that they wouldn't be condensed together on one page, the ledger accounts will then appear as below.

Dr Premises account Cr

1990		£			£
1 July	Balance	84,000.00			

Furniture and fittings account

1 July	Balance	7,000.00			

Stock account

1 July	Balance	5,000.00			

Bank account

1 July	Balance	1,900.00			

Cash account

1 July	Balance	100.00			

Capital account

			1 July	Balance	82,000.00

Bank loan account

			1 July	Balance	16,000.00

In Chapter 1 you learnt that a balance sheet was a reflection of the book-keeping equation: assets = capital + liabilities. If all the assets are now entered on the debit side of their ledger accounts while the capital and liabilities are placed on the credit side of their accounts, it follows that the total value of all the debit balances must equal the total value of all the credit balances.

It is important, however, that you do not confuse balance sheets with ledger accounts. Use the terms debit and credit to refer to the left and right hand side of ledger accounts. Do not use these terms when referring to a balance sheet. A balance sheet is an accounting statement not a ledger account.

2.3 ENTERING TRANSACTIONS

The next step in keeping a ledger is to enter transactions in the accounts. We will consider the assets first and then the sources of finance. An asset is represented in its own account by a debit balance. If something happens to increase the value of this asset, we show it by making another debit entry. If the asset is reduced in value a credit entry is made in that account.

For example, on 1 May, Tom Smith possessed two delivery vehicles worth £4,000 and £2,000. On 2 May he purchased another for £1,000 and 3 May he sold his most valuable vehicle for £4,000, exactly what it was worth. These events would be recorded as follows.

Dr — Delivery vehicles account — Cr

		£			£
1 May	Balance	6,000	3 May		4,000
2 May		1,000			

Sources of finance, whether owner's capital or liabilities to outsiders, are shown in their own accounts by credit balances. If something happens to increase the value of one of these, we show it by making another credit entry. If the source of finance is reduced in value a debit entry is made in that account.

For example, on 1 May, Tom Smith owed Busifinance Co. £4,000, which had been borrowed to enable him to start his business. On 4 May he negotiated a further loan of £3,000 but on 8 May an early and successful conclusion of a deal enabled him to repay £2,000. These events in the account of this liability will be recorded as follows.

Dr — Busifinance Co. account — Cr

		£			£
8 May		2,000	1 May	Balance	4,000
			4 May		3,000

What has been learnt so far about entries in ledger accounts can be summarised for easy reference.

Debit — Any asset account	Credit
1 Opening value of that asset. 2 Increases in value of that asset.	Deductions in value of that asset.

Debit — Any source of finance account	Credit
Deductions in value of that source of finance.	1 Opening value of that source of finance. 2 Increase in value of that source of finance.

The amount that any asset is worth can be calculated at any time. If the original value of an asset together with any additions to it are on the debit side and deductions are on the credit side, the difference between the two sides on a certain date will tell us what the asset is then worth. Similarly, the amount of a liability or the owner's capital can be calculated. If the original value of a source of finance together with any additions to it are on the credit side and deductions are on the debit side, the difference between the two sides at a particular time will tell us the amount of the liability or capital at that time.

The difference in value between the two sides of an account is known as the balance of the account.

2.4 **DOUBLE ENTRY**

When considering the effect of transactions on the balance sheet in Section 1.4 we saw how every transaction caused two changes in the assets and/or sources of finance of the business. This is shown in the ledger by making two entries, one in each account affected. Double entry book-keeping is the name given to this system of recording transactions in the ledger. It is important that you learn how to operate it.

As an example, look back at Tom Smith's delivery vehicles account on page 21. Neither the transaction of 2 May nor that of 3 May have any description in the 'details' column. This is because we did not give enough information for it to be completed. Take the transaction of 2 May - Tom purchased a vehicle for £1,000. How did he purchase it? There two possibilities. First he could have paid for it at the time of purchase. If he did this, besides showing an increase in his delivery vehicles by debiting this account, we should also show a reduction in one of his money accounts for the same amount. Whether this would involve an entry in the cash account or the bank account would depend on whether he paid by cash or by cheque. Let's assume he paid such a large sum by cheque. What kind of entry would you have to make in the bank account?

If you said credit, good. If not look at the summary on page 21 again. A deduction from an asset is shown by a credit entry in that account. Clearly the money in Tom's bank account would go down as a result of paying £1,000 by cheque for a vehicle. Therefore the bank account should be credited. (Those readers with current bank accounts who receive bank statements might find this confusing. When you pay £1,000 for, say, a vehicle, the bank will debit your account. This is because they are looking at the transaction from their point of view, not yours. If you have money in a current bank account, the bank owes you the money. From their point of view this is a liability. When you use £1,000 of it to pay someone, the bank owes you less. They show this reduction of the liability by a debit entry. We will look at this in more detail in Chapter 7.)

In double entry book-keeping each entry is described by the name of the account affected. The description in the details column of Tom's delivery vehicles account would therefore be 'bank'. In his bank account the description would be 'delivery vehicles'.

A second possibility is that Tom did not pay for the vehicle at the time of purchase but agreed to pay at a later date. This is known as a credit purchase. In this case the other effect of the purchase is that he owes £1,000 to the seller. This is a liability to Tom. The seller was Ted's Garage. An account would have to be opened for this company if one did not already exist. What kind of entry would it be? If you said credit, good. If not, look again at the summary on page 21. An increase or the start of a liability is shown by a credit entry in that account. Clearly Tom owes £1,000 to Ted's Garage as a result of this transaction, therefore the account for Ted's Garage should be credited.

In the delivery vehicles account the description would be 'Ted's Garage' and in the account for Ted's Garage the description would be 'delivery vehicles'. Remember, in double-entry book-keeping an entry is described by the name of the other account affected.

Of course, it is also possible that Tom might have combined the above two methods of purchase. He could have paid a deposit of, say, £400 by cheque and agreed to pay the outstanding £600 at a later date. If this was the case there would be a credit entry of only £400 in the bank account showing a reduction in this asset by that amount. There would also be a credit entry of £600 in the account for Ted's Garage, showing a liability of that amount. How would this be shown in the delivery vehicles account? The easiest way is to make two debit entries on the same date - one for £400 described as 'bank' and the other for £600 described as 'Ted's Garage'.

Tom's transaction of 2 May, however it was financed, illustrates the most important principle of double-entry book-keeping:

- *Every transaction involves a debit entry in one account and a corresponding credit entry in another account.*

If a transaction is more complicated it may involve two debit entries in one account and two separate credit entries in different accounts. The value of the debit entry or entries for each transaction, however, must equal the value of the credit entry or entries. This is how we express in the ledger what was learnt earlier when observing the effect of transactions on the balance sheet. Every transaction has two effects on the assets and/or sources of finance. In the ledger every transaction involves a debit entry in one account and a corresponding credit entry in another account.

Exercise 2.1

Look again at Tom's delivery vehicles account on page 21.
Referring to Tom's transaction of 3 May draft ledger accounts and complete the entries for each of the following *separate* possibilities:

(a) Tom sold the vehicle for £4,000 cash.
(b) Tom sold the vehicle to Parkhill Motors on credit.
(c) Parkhill Motors paid £1,000 by cheque and agreed to pay the outstanding £3,000 at a later date.

Note that whichever of the above circumstances applies there is a debit entry for each credit entry. Also the description of each account is the name of the other account affected by the transaction.

Understanding double-entry book-keeping is important. If you follow what we have done in this chapter so far, fine. If not, you should look through it again before attempting the following exercise. Practising it is the best way to master double-entry book-keeping.

Exercise 2.2

On page 20 in this chapter we opened a set of ledger accounts for Bill Turner's Valuemart, which began business on July 1990. Copy out these accounts leaving space to enter these transactions;

2 July Bill purchased a new fridge for £300, by cheque.
3 July He purchased £500 worth of stock on credit from a supplier called JLK Foods.
4 July He sold an old fridge worth £100 to a friend, Sally Moore, for that amount. She paid £50 in cash and agreed to pay the rest later.
5 July He borrowed a further £500 from his bank and used it to buy an electronic till.
6 July He sold £300 worth of stock for £400 cash.

These are the transactions we used in Section 1.4. They have been repeated for your convenience. Complete the entries for each of the transactions, opening new accounts where necessary. Make certain that every transaction has a debit entry to correspond to each credit entry.

2.5 VERTICAL LEDGER ACCOUNTS

In this chapter and the remainder of the book the style of ledger account layout is of the traditional horizontal sort. Descriptions for debit entries appear to the left of descriptions for credit entries. When accounting machines or computers are used a vertical style is normal with all descriptions in the same column. The furniture and fittings account on page 273 would look like this in vertical style:

Furniture and fittings

Date	*Description*	*Dr.*	*Cr.*	*Balance*
1 July	Balance			7000 dr
2 July	Bank	300		7300 dr
4 July	S. Moore		50	7250 dr
4 July	Cash		50	7200 dr
5 July	Bank loan	500		7700 dr

The only other occasion you will see a vertical ledger account in this book will be when we look at bank statements in Chapter 7. Banks are large organisations that have computerised their accounting systems.

One obvious advantage of this method is the automatic balancing that takes place after each entry. This is done speedily by a computer or machine. Usually its importance is not thought sufficient to calculate it after each entry when the accounts are hand-written.

Exercise 2.3

Complete the following sentences:

(a) A ______ ______ is a statement of the assets and sources of finance of a business at a particular date.
(b) A ______ ______ is an individual record of transactions affecting one aspect of the business.
(c) An asset is represented in its own account by a ______ ______.
(d) Increases in the value of an asset require a ______ entry in that account while decreases in value require a ______ entry.
(e) ______ ______ book-keeping is the name given to the system whereby the dual effects of each transaction are recorded in the ledger.
(f) A source of finance is represented in its own account by a ______ balance.
(g) Increases in the value of a source of finance require a ______ entry in that account while decreases in value require a ______ entry.

Exercise 2.4

State the accounts to be debited and credited for each of the following *separate* transactions:

(a) Purchased equipment by cheque £600.
(b) Sold motor vehicle by cheque £300.
(c) Purchased stock by cash £150.
(d) Paid £400 cash into bank.
(e) Withdrew £300 from the bank for use as cash.
(f) Paid trade creditors £50 cash.
(g) Paid trade creditors £450 by cheque.
(h) Paid £250 cash into the bank.
(i) Received £250 from debtors in cash.

Exercise 2.5

From the following information open ledger accounts. Then enter the transactions, opening new accounts when necessary.

Balance sheet of Jill Evans as at 1 May 1990

	£		£
Premises	33,000	Capital	65,000
Equipment	15,000	Trade creditors	6,750
Debtors	5,500		
Stock	17,000		
Cash	1,250		
	71,750		71,750

2 May Purchased equipment for £500 by cash.
3 May Purchased £950 stock from AJK on credit.
4 May Sold £2,000 of old equipment at book value for cash.
5 May Opened a bank account by paying in £500 cash.
6 May Paid £300 of amount owing to trade creditors by cheque.
7 May Sold £300 worth of stock for £500 cash.

CHAPTER 3

EXPANDING THE LEDGER

The last chapter introduced the principles of double-entry book-keeping and applied them to assets and sources of finance. In this chapter we will apply these rules to the asset, stock. Then we will consider how to deal with transactions involving expenses and incomes.

Many businesses are involved in buying and selling. The stock accounts of these businesses are therefore going to be very busy indeed, with large numbers of transactions to be entered. To keep things simple, four additional accounts are used to record the different events that change the amount of stock. These are: purchases account, purchases returns account, sales account and sales returns account. They may be thought of as subdivisions of the stock account.

3.1 PURCHASES

Purchases of stock increase the value of this asset. What kind of entry in the stock account shows this? If you have mastered the rules in the last chapter, you should have said 'debit'. Instead of making the debit entries in the stock account, we are going to enter all such debits in a purchases of stock account, which for convenience will be called the purchases account.

In which account will the corresponding credit entry be found? This will depend on the method of payment. If payment is made immediately the credit will be entered in the cash or bank accounts, showing the reduction of an asset. If the goods (as stock is sometimes called) are bought on credit then the credit will be entered in the account of the supplier, who is a creditor to the purchaser. This shows the increase of a liability.

For example, on 1 April a greengrocer bought £150 of fruit on credit from Fruitgrowers Ltd. The entries in the greengrocer's ledger accounts would be as follows:

Dr Purchases

		£	
1 April	Fruitgrowers	150	