Chapter 3

Financial statements from the accounting equation

REAL WORLD CASE

Cash flow

After deducting interest, tax and dividend payments, £467 million of operating cash flow was available to fund our capital investment programme, demonstrating BAA's continued strong conversion of operating profit to cash. The APP joint venture and the other investment property sales generated a further cash inflow of £625 million. The balance of the £1,403 million capital investment during the year was funded by increased net debt. The table below summarises the Group's cash flow movements during the year.

Summary cash flow (£ million)

	2005	2004
Cash flow from operating activities	**957**	853
Interest, tax and dividends	**(490)**	(447)
Net cash flow from operations	**467**	406
Capital expenditure and investment	**(1,433)**	(1,266)
Cash impact of property transactions	**625**	(7)
Other	**31**	15
Increase in net debt (net of issue costs)	**(310)**	(825)

Source: BAA Annual Report 2004/5, p. 34.

Discussion points

1 What do we learn about cash flow from the information in the table?

2 How does the description in words help the user to understand the information in the table?

Contents

Learning outcomes

After studying this chapter you should be able to:

- Explain the benefits and problems of producing annual financial statements.
- Explain the purpose and structure of the balance sheet.
- Explain the purpose and structure of the income statement (profit and loss account).
- Explain the purpose and structure of the cash flow statement.
- Comment on the usefulness to users of the financial statements prepared.

Additionally for those who choose to study the Supplement:

- Apply the debit and credit form of analysis to the transactions of a short period of time, summarising them in a list which may be used for preparation of simple financial statements.

3.1 Introduction

In the previous chapter the accounting equation was developed as a representation of the relationships among key items of accounting information: assets, liabilities and the ownership interest. An understanding of the accounting equation and the various elements of the equation provides a systematic approach to analysing transactions and events, but it gives no guidance as to how the results should be communicated in a manner which will be helpful and meaningful to users. The accounting equation is used in this chapter as a basis for explaining the structure of financial statements. Ideas beyond the accounting equation are required as to what qualities are expected of financial statements.

The various financial statements produced by enterprises for the owners and other external users are derived from the accounting equation. The *Framework* identifies the purposes of financial reporting as producing information about the financial position, performance and financial adaptability of the enterprise. The three most familiar **primary financial statements**, and their respective purposes, are:

Primary financial statement	*Purpose is to report*
Balance sheet	Financial position
Income statement (Profit and loss account)	Performance
Cash flow statement	Financial adaptability

This chapter explains the general shape and content of each of these financial statements.

3.2 Who is in charge of the accounting system?

Since 2005 two different accounting systems have existed for companies in the UK, depending on the type of company. When you look at the name of a company listed on the Stock Exchange, such as Vodaphone, BskyB, Cadbury Schweppes and Dixons, you are really looking at a family group of companies all owned by one parent company. One set of financial statements representing all the companies in the group. Under the law of the European Union (EU), these group financial statements for listed companies must apply the accounting system set out by the International Accounting Standards Board (**IASB system**). Other companies in the UK may choose to follow the IASB system of standards but there is no requirement to do so. All companies in the UK that do not apply the IASB system must apply the accounting system set out by the UK Accounting Standards Board (ASB). The ASB's system is also used by many bodies in the UK public sector such as town and city councils, hospital trusts and universities.

Fortunately for those studying the subject, the ASB and the IASB have been working closely together for many years and there are relatively few differences between the two systems. However there is a potential difference in the appearance and the wording of financial statements. Companies applying the UK ASB's accounting system must use specifications of the sequence and content of items (called **formats** of financial statements) set out in UK company law which is based on EU directives. Companies applying the IASB's system to their listed group reporting have a choice in how they present their financial statements. As a consequence we are now seeing variety in the content and sequence of financial statements published in the annual reports of groups listed on the Stock Exchange. This chapter gives you a flavour of the formats that you might see in financial statements. Where there are differences in words used, this chapter gives the wording of the IASB system first, followed by the wording of UK company law and ASB standards in brackets. As an example, the description:

income statement (profit and loss account)

means that the IASB system uses **income statement** in its illustrations of a profit statement, while UK law and ASB standards use **profit and loss account** in their illustrations of a profit statement.

3.3 The accounting period

In the far-away days of traders sailing out of Italian ports on three-year voyages, the **accounting period** was determined by the date of return of the ship, when the accounts could be prepared for the whole voyage. That rather leisurely view of the scale of time would not be tolerated in an industrial and commercial society where there is always someone demanding information. The convention is that businesses should prepare financial statements at least once in every calendar year. That convention is a requirement of law expressed in the Companies Act 1985 in the case of limited liability companies. Where companies have a Stock Exchange listing they are required to produce an interim report six months into the accounting year. Some companies voluntarily produce quarterly reports to shareholders, reflecting the practice of listed companies in the USA. For internal management accounting purposes, a business may produce reports more frequently (e.g. on a monthly or a weekly basis).

Businesses may choose their accounting date as a time convenient to their activities. Many companies choose 31 December for the year-end, but others (including many of the utility companies which were formerly owned by the government) use 31 March. Some prefer a September or October date after the peak of the summer sales has passed. Whatever the choice, companies are expected to keep the same date from one year to the next unless there is a strong reason for changing.

The use of a 12-month accounting period should not be too much of a problem where the trading cycle fits neatly into a year. If the business is seasonal, there will be a peak of production to match the seasonal peak of sales and the pattern will be repeated every year. There could be a few technical problems of deciding exactly how to close the door on 31 December and whether transactions towards the end of the year are to be included in that year or carried to the next period. These problems can be dealt with by having systematic 'cut-off' rules. There is a bigger problem for those companies whose trading cycle is much longer. It could take two years to build a section of a motorway or three years to build a bridge over a wide river estuary. Such a company will have to subdivide the work on the main contract so that some can be reported each year.

The use of the 12-month accounting period also causes problems for recognition of assets and liabilities. Waiting for the ship to arrive was much safer evidence for the Venetian traders than hoping it was still afloat or relying on reported sightings. For today's business the equivalent situation would be waiting for a property to be sold or for a large customer to pay the amount due as a debt. However, in practice the balance sheet cannot wait. Notes to the accounts give additional explanations to help users of financial statements evaluate the risk, but it is all quite tentative.

3.4 The balance sheet

The **balance sheet** reflects the accounting equation. You saw in Chapter 2 that there is more than one way to write the accounting equation. That means there is more than one way to present a balance sheet. You will find throughout your study of accounting that there is often more than one approach to dealing with an activity or solving a problem. This is the first time but there will be more. It means that you need to be flexible in your approach to reading and using financial statements.

3.4.1 Focus on the ownership interest

One form of the accounting equation focuses on the ownership interest as the result of subtracting liabilities from assets. The equation is as follows:

Assets	minus	**Liabilities**	equals	**Ownership interest**

UK companies who apply this form of the equation will present the balance sheet in a narrative form, reading down the page, as follows:

Assets
minus
Liabilities
equals
Ownership interest

The assets are subdivided into current assets and non-current assets (defined in Chapter 2), while the liabilities are subdivided into current liabilities and non-current liabilities (also defined in Chapter 2). The ownership interest may also be subdivided to show separately the capital contributed or withdrawn and the profit of the period. Because current assets and current liabilities are closely intertwined in the day-to-day operations of the business, they are grouped close to each other in the balance sheet (Exhibit 3.1).

Exhibit 3.1
Structure of a balance sheet

Non-current assets
plus
Current assets
minus
Current liabilities
minus
Non-current liabilities
equals
Capital at start of year plus/minus **Capital contributed or withdrawn** plus **Profit of the period**

Exhibit 3.1 represents a **format** set out in the Companies Act 1985 (although with more detail) as one of the permitted formats. For many years it has been the format most commonly used by UK companies and continues to be used by some UK companies that have moved to the IASB system of accounting. Most companies will try to confine the balance sheet to a single side of A4 paper but there is not much space on one sheet of A4 paper to fit in all the assets and liabilities of a company. Consequently a great deal of use is made of notes to the accounts which explain the detail. The balance sheet shows only the main categories of assets and liabilities.

3.4.2 Balancing assets and claims on assets

Another form of the accounting equation focuses on balancing the assets against the claims on assets. The claims on assets come from the ownership interest and from liabilities of all types. The equation is as follows:

Assets	equals	**Ownership interest**	plus	**Liabilities**

UK companies who apply this form of the equation will present the balance sheet vertically on one sheet of paper but the sequence will be different:

Assets
equals
Ownership interest
plus
Liabilities

In some countries there is a preference for lining up the balance sheet horizontally to match the accounting equation even more closely.

Assets	**Ownership interest**
	plus
	Liabilities

Activity 3.1

Before reading further, make sure that you can explain why each item in the accounting records is an asset or a liability, as shown in the foregoing list. If you have any doubts, read Chapter 2 again before proceeding with this chapter.

3.4.3 Example of balance sheet presentation

The following list of assets and liabilities of P. Mason's legal practice was prepared from the accounting records of transactions summarised at 30 September Year 5:

	£
Land and buildings	250,000
Office furniture	30,000
Receivables (debtors) for fees	1,200
Prepayment of insurance premium	540
Cash at bank	15,280
Total assets (A)	**297,020**
Trade payables (creditors)	2,800
Long-term loan	150,000
Total liabilities (L)	**152,800**
Ownership interest (A – L)	**144,220**

Exhibit 3.2 shows how this would appear in a balance sheet based on the 'ownership interest' form of the equation. Exhibit 3.3 shows how the same information would appear in a balance sheet based on the 'claims on assets' form of the equation.

Exhibit 3.2
Balance sheet: Assets minus liabilities equals ownership interest

P. Mason's legal practice
Balance sheet at 30 September Year 5

	£	£
Non-current assets		
Land and buildings		250,000
Office furniture		30,000
Total non-current assets		280,000
Current assets		
Receivables (debtors) for fees	1,200	
Prepayment of insurance premium	540	
Cash at bank	15,280	
Total current assets	17,020	
Current liabilities		
Trade payables (creditors)	(2,800)	
Current assets less current liabilities		14,220
		294,220
Non-current liabilities		
Long-term loan		(150,000)
Net assets		144,220
Ownership interest		144,220

The balance sheet in Exhibit 3.2 is more informative than the list of assets and liabilities from which it was prepared because it has been arranged in a helpful format. The first helpful feature is the use of headings (shown in Exhibit 3.2 in bold) for similar items grouped together, such as non-current assets, current assets, current liabilities and non-current liabilities. The second helpful feature is the use of **subtotals** (identified in Exhibit 3.2 by descriptions in italics and shaded) for similar items grouped together. The subtotals used in this example are those for: total non-current assets; total current assets; and current assets less current liabilities. There are no standard rules on use of subtotals. They should be chosen in a manner most appropriate to the situation.

A person using this balance sheet can see at a glance that there is no problem for the business in meeting its current liabilities from its resources of current assets. The financing of the business is split almost equally between the non-current liabilities and the ownership interest, a split which would not be regarded as excessively risky by those who lend to businesses. The non-current assets used as a basis for generating profits from one year to the next are collected together as a group, although the balance sheet alone cannot show how effectively those assets are being used. For that, an income statement (profit and loss account) is needed.

The balance sheet in Exhibit 3.3 is again more informative than the list of assets and liabilities from which it was prepared because it has been arranged in a helpful format. It offers a helpful feature in the use of headings (in bold) for similar items grouped together. It is also helpful in providing subtotals (identified by descriptions in italics and shaded) for similar items grouped together. The subtotals used in this example are those for: total non-current assets and total current assets. There could also be subtotals for the current assets less current liabilities. There are no standard rules on use of subtotals. They should be chosen in a manner most appropriate to the situation.

Exhibit 3.3
Balance sheet: Assets equal ownership interest plus liabilities

P. Mason's legal practice
Balance sheet at 30 September Year 5

	£	£
Non-current assets		
Land and buildings		250,000
Office furniture		30,000
Total non-current assets		280,000
Current assets		
Receivables for fees		1,200
Prepayment of insurance premium		540
Cash at bank		15,280
Total current assets		17,020
Total assets		297,020
Ownership interest		144,220
Non-current liabilities		
Long-term loan		150,000
Current liabilities		
Trade payables		2,800
Total ownership interest plus liabilities		297,020

A person using this balance sheet can again see at a glance that there is no problem for the business in meeting its current liabilities from its resources of current assets. The financing of the business is split almost equally between the non-current liabilities and the ownership interest, a split which would not be regarded as excessively risky by those who lend to businesses. The non-current assets used as a basis for generating profits from one year to the next are collected together as a group, although the balance sheet alone cannot show how effectively those assets are being used.

3.5 The income statement (profit and loss account)

For many years in the UK, **profit and loss account** was the only title used for the financial statement reporting profit of the period. From 2005 many of those listed groups following the IASB's system have chosen to follow an example given by the IASB which uses the heading **income statement**, found more commonly in US company reports. It is not compulsory for listed group companies to use 'income statement' and some retain the 'profit and loss account' heading. The income statement (profit and loss account) reflects that part of the accounting equation which defines profit:

Profit	equals	**Revenue** minus **Expenses**

The expenses of a period are matched against the revenue earned in that period. This is described as the application of the **matching concept** in accounting.

As with the balance sheet, it is presented in a vertical form so that it can be read down the page as a narrative (Exhibit 3.4).

Exhibit 3.4
Structure of an income statement (profit and loss account)

Revenue
minus
Expenses
equals
Profit

3.5.1 Example of presentation

The accounting records of P. Mason's legal practice at 30 September Year 5 showed that the ownership interest could be explained as follows (using brackets to show negative items):

	£
Increases in ownership interest	
Capital contributed at start of month	140,000
Fees	8,820
Decreases in ownership interest	
Computer rental and on-line searches	(1,500)
Gas	(100)
Electricity	(200)
Telephone/fax	(1,000)
Salary of assistant	(1,800)
Ownership interest at end of month	144,220

The statement of profit is quite simple, as shown in Exhibit 3.5.

Exhibit 3.5
Financial statement of profit, in a useful format

P. Mason's legal practice
Income statement (profit and loss account) for the month of September

	£	£
Revenues		
Fees		8,820
Expenses		
Computer rental and on-line searches	(1,500)	
Gas	(100)	
Electricity	(200)	
Telephone/fax	(1,000)	
Salary of assistant	(1,800)	
Total expenses		(4,600)
Net profit of the month		4,220

3.5.2 Comment

The income statement (profit and loss account) improves on the mere list of constituent items by providing headings (shown in bold) for each main category. As this is a very simple example, only two headings and one subtotal are required. Headings and subtotals are most useful where there are groups of items of a similar nature. The resulting net profit shows how the revenues and expenses have contributed overall to increasing the ownership interest during the month.

Activity 3.2

Taking each item of the income statement (profit and loss account) in turn, explain to an imaginary friend why each item of revenue and expense is regarded as increasing or decreasing the ownership interest. If necessary, look back to the definitions of revenue and expense in Chapter 2. Make sure that you feel confident about the income statement (profit and loss account) before you move on.

3.6 The cash flow statement

It was shown in Chapter 1 that liquidity is of interest to more than one user group, but of particular interest to creditors of the business.

Liquidity is measured by the cash and near-cash assets and the change in those assets, so a financial statement which explains cash flows should be of general interest to user groups:

Cash flow	equals	**Cash inflows to the enterprise** minus **Cash outflows from the enterprise**

The **cash flow statement** will appear in a vertical form:

Cash inflows
minus
Cash outflows
equals
Change in cash assets

In a business there will be different factors causing the inflows and outflows of cash. The enterprise will try to make clear what the different causes are. Subdivisions are commonly used for operating activities, investing activities and financing activities:

- *Operating activities* are the actions of buying and selling goods, or manufacturing goods for resale, or providing a service to customers.
- *Investing activities* are the actions of buying and selling non-current assets for long-term purposes.
- *Financing activities* are the actions of raising and repaying the long-term finance of the business.

Exhibit 3.6 sets out the basic structure of a basic cash flow statement.

Exhibit 3.6
Structure of a cash flow statement

Operating activities **Cash inflows** minus
Cash outflows
plus
Investing activities **Cash inflows** minus **Cash outflows**
plus
Financing activities **Cash inflows** minus **Cash outflows**
equals
Change in cash assets

3.6.1 Example of cash flow presentation

The cash transactions of P. Mason's legal practice for the month of September were recorded as follows:

Accounting records

Year 5		£
Cash received		
Sept. 1	Capital contributed by P. Mason	140,000
Sept. 1	Loan from bank	150,000
Sept. 19	Fees received from clients	7,620
	Total cash received	297,620
Cash paid		
Sept. 1	Land and buildings	250,000
Sept. 5	Prepayment of insurance premium	540
Sept. 26	Supplier for office furniture	30,000
Sept. 30	Salaries	1,800
	Total cash paid	282,340
	Cash remaining at 30 September	15,280

The cash flow statement would be presented as shown in Exhibit 3.7.

3.6.2 Comment

The cash flows, listed at the start of section 3.5.1 in the accounting records for the legal practice, relate to three different types of activity which are brought out more clearly in the cash flow statement by the use of headings and subtotals. The headings are shown in bold and the subtotals are highlighted by italics and shading. The story emerging from the cash flow statement is that the owner put in £140,000 and the bank lent £150,000, providing a total of £290,000 in start-up finance. Of this amount, £280,000 was used during the month to pay for non-current assets. That left £10,000 which, when added to the positive cash flow from operations, explains why the cash resources increased by £15,280 over the month.

Exhibit 3.7
Financial statement showing cash flows of an enterprise

P. Mason's legal practice
Cash flow statement for the month of September Year 5

	£
Operating activities	
Inflow from fees	7,620
Outflow to insurance premium	(540)
Outflows to salaries	(1,800)
Net inflow from operations	5,280
Investing activities	
Payment for land and building	(250,000)
Payment for office furniture	(30,000)
Net outflow for investing activities	(280,000)
Financing activities	
Capital contributed by owner	140,000
Five-year loan from bank	150,000
Net inflow from financing activities	290,000
Increase in cash at bank over period	15,280

It is quite common to compare the increase in ownership claim caused by making a profit with the increase in the cash resources of a business caused by operations. In this case the profit is £4,220 (Exhibit 3.5) but the operations have added £15,280 to the cash assets of the business.

To make the comparison, Exhibit 3.8 takes the income statement (profit and loss account) of Exhibit 3.5 and sets alongside it the cash flows relating to operations.

Exhibit 3.8 shows that the cash flow from fees was £1,200 less than the fee revenue earned because some customers had not paid at the month end. This is the amount shown in the balance sheet (Exhibit 3.2) as receivables for fees. Exhibit 3.8 also shows that expenses of rental, gas, electricity and telephone amounting to £2,800 in total had not been paid at the month end. These are shown as **trade payables** in the balance sheet. The cash flow from operations is reduced by the payment for the insurance premium which does not affect the income statement (profit and loss account) for the month.

Exhibit 3.8
Comparison of profit and cash flow for the month of September

P. Mason's legal practice

	Profit £	*Cash flow* £
Revenues		
Fees/cash received	8,820	7,620
Expenses		
Computer rental and on-line searches	(1,500)	nil
Gas	(100)	nil
Electricity	(200)	nil
Telephone/fax	(1,000)	nil
Salary of assistant	(1,800)	(1,800)
Payment for insurance premium	nil	(540)
Total expenses/total cash paid	4,600	(2,340)
Net profit of the month	4,220	
Increase in cash in the month		5,280

Users of financial statements regard both the profit and the cash flow as interesting items of information. The profit shows the overall increase in ownership claim which contributes to the overall wealth of the business. The cash flow shows the ability of the business to survive financially through planning the timing and amount of inflows and outflows of cash.

3.7 Usefulness of financial statements

Here are Leona and David, still working on Leona's flat, discussing the usefulness of financial statements.

LEONA: *Which financial statement is the most important for you?*

DAVID: *It has to be the income statement (profit and loss account). Profit creates wealth. Future profit creates future wealth. I have to make a forecast of each company's profit as part of my planning to meet our overall investment strategy. Maybe I should qualify that by adding that cash flow is also important, especially where there is high uncertainty about future prospects. We talk about 'quality of profits' and regard some types of profit as of higher quality than others. Cash flow support is one aspect of that quality. We have doubts about some accounting amounts which don't have a close relationship to cash. A business cannot survive if it can't pay its way.*

LEONA: *Where does that leave the balance sheet?*

DAVID: *I'm not sure. It is a list of resources and claims on those resources. We are shareholders and so we have a claim on those resources but we don't think about it to any great extent because we are concentrating on the going concern aspects of the business, rather than closing down and selling the assets. The balance sheet numbers don't mean very much because they are out of date.*

LEONA: *We studied research at university which suggested that cash flow is the answer and income statements (profit and loss accounts) are too difficult to understand. It was suggested that the balance sheet should show what the assets could be sold for. I don't think the ideas had caught on in practice, but they seemed to have some merits.*

DAVID: *I like to know the dynamics of the business. I like to see the movements of different aspects and the interactions. I think I would feel that cash flow alone is concentrating on only one aspect of the wealth of the business. I suppose the balance sheet is a useful check on the position which has been reached as a result of making profits for the period. One thing we do look at in the balance sheet is how much has been borrowed for use in the business. We don't like to see that become too high in comparison with the ownership interest.*

LEONA: *At least you are admitting to seeing something in the financial statements. I still have to persuade you that the auditors are important in giving you the reassurance you obviously obtain.*

Activity 3.3

Analyse your own view of wealth and changes in wealth. Which items would you include in your personal balance sheet today? Which items would you include in your personal 'profit and loss' account for the past year? Which items would you include in your personal cash flow statement? Has your view of 'wealth' been modified as a result of reading these first three chapters? If so, how have your views changed?

3.8 Summary

This chapter has explained the structure of the main financial statements produced by business and non-business entities.

Key points are:

- An **accounting period** of 12 months is common for financial reporting.
- The **primary financial statements** produced by a wide range of entities are the balance sheet, the income statement (profit and loss account) and the cash flow statement.
- A **balance sheet** presents financial position at a point in time. The **format** of the balance sheet will vary depending on which version of the accounting equation is preferred by the entity preparing the balance sheet.
- An **income statement** (profit and loss account) presents the performance over a period of time. The income statement (profit and loss account) presents financial performance by **matching** revenue and expenses to arrive at a profit of the period.
- A **cash flow statement** presents the financial adaptability over a period of time. It explains changes in the cash position over a period caused by operating cash flows, investing cash flows and financing cash flows.
- Since 2005 two different accounting systems (consisting of **accounting standards** and legislation) have existed for companies in the UK, depending on the type of company. The **IASB system** applies to the group financial statements of listed companies. Other companies may choose voluntarily to follow the IASB system. The **UK system**, based on UK law and the standards of the UK ASB, applies to all companies that do not follow the IASB system.
- The **accounting standards** of the UK ASB are very similar to those of the IASB.

QUESTIONS

The Questions section of each chapter has three types of question. 'Test your understanding' questions to help you review your reading are in the 'A' series of questions. You will find the answers to these by reading and thinking about the material in the book. 'Application' questions to test your ability to apply technical skills are in the 'B' series of questions. Questions requiring you to show skills in problem solving and evaluation are in the 'C' series of questions. A letter [S] indicates that there is a solution at the end of the book.

A Test your understanding

A3.1 Explain why an accounting period of 12 months is used as the basis for reporting to external users of financial statements. (Section 3.3)

A3.2 Explain how the structure of the balance sheet corresponds to the accounting equation. (Section 3.4)

A3.3 Explain how the structure of the income statement (profit and loss account) represents a subsection of the accounting equation. (Section 3.5)

A3.4 Explain how the structure of the cash flow statement represents another subsection of the accounting equation. (Section 3.6)

A3.5 List three features of a balance sheet format which are particularly useful in making the format helpful to readers. (Section 3.4.3)

A3.6 List three features of an income statement (profit and loss account) format which are particularly useful in making the format helpful to readers. (Section 3.5.1)

A3.7 List three features of a cash flow statement format which are particularly useful in making the format helpful to readers. (Section 3.6.1)

B Application

B3.1 [S]

John Timms is the sole owner of Sunshine Wholesale Traders, a company which buys fruit from farmers and sells it to supermarkets. All goods are collected from farms and delivered to supermarkets on the same day, so no inventories (stocks) of fruit are held. The accounting records of Sunshine Traders at 30 June Year 2, relating to the year then ended, have been summarised by John Timms as follows:

	£
Fleet of delivery vehicles, after deducting depreciation	35,880
Furniture and fittings, after deducting depreciation	18,800
Trade receivables	34,000
Bank deposit	19,000
Trade payables (creditors)	8,300
Sales	294,500
Cost of goods sold	188,520
Wages and salaries	46,000
Transport costs	14,200
Administration costs	1,300
Depreciation of vehicles, furniture and fittings	1,100

Required

(a) Identify each item in the accounting records as either an asset, a liability, or ownership interest (identifying separately the expenses and revenues which contribute to the change in the ownership interest).
(b) Prepare a balance sheet at 30 June Year 2.
(c) Prepare a profit and loss statement for the year ended 30 June Year 2.

B3.2 [S]

Prepare a balance sheet from the following list of assets and liabilities, regarding the ownership interest as the missing item.

	£
Trade payables (creditors)	43,000
Cash at bank	9,000
Inventories (stocks) of goods for resale	35,000
Land and buildings	95,000
Wages due to employees but not paid	2,000
Vehicles	8,000
Five-year loan from a bank	20,000

Explain how the balance sheet will change for each of the following transactions:

(a) The wages due to the employees are paid at £2,000.
(b) One-quarter of the inventory (stock) of goods held for resale is destroyed by fire and there is no insurance to cover the loss.
(c) Goods for resale are bought on credit at a cost of £5,000.

There are no questions in the C series for this chapter.

Activities for study groups

Return to the annual reports your group obtained for the exercise in Chapter 1. Find the balance sheet, income statement (profit and loss account) and cash flow statement. Use the outline formats contained in this chapter to identify the main areas of each of the published statements. Work together in preparing a list of features which make the formats useful to the reader. Note also any aspects of the presentation which you find unhelpful at this stage. (It may be useful to look back on this note at the end of the course as a collective check on whether your understanding and awareness of annual report items has improved.)

Supplement to Chapter 3

Using the accounting equation to analyse transactions

In the main body of the chapter the transactions of P. Mason's legal practice are set out in summary form and are then presented in financial statements. This supplement goes back one stage and looks at the transactions and events for the month of September which resulted in the summary and financial statements shown in the chapter.

The list of transactions and events is as follows:

Sept. 1	P. Mason deposits £140,000 in a bank account to commence the business under the name *P. Mason's legal practice*.
Sept. 1	P. Mason's legal practice borrows £150,000 from a finance business to help with the intended purchase of a property for use as an office. The loan is to be repaid in five years' time.
Sept. 1	A property is purchased at a cost of £75,000 for the land and £175,000 for the buildings. The full price is paid from the bank account.
Sept. 3	Office furniture is purchased from Stylecraft at a cost of £30,000. The full price is to be paid within 90 days.
Sept. 5	An insurance premium of £540 is paid in advance. The insurance cover will commence on 1 October.
Sept. 8	An applicant is interviewed for a post of legal assistant. She agrees to start work on 10 September for a salary of £24,000 per annum.
Sept. 11	Invoices are sent to some clients for work done in preparing contracts for them. The total of the invoiced amounts is £8,820. Clients are allowed up to 30 days to pay.
Sept. 19	Cheques received from clients in payment of invoices amount to £7,620.
Sept. 26	Payment is made to Stylecraft for the amount due for office furniture, £30,000.
Sept. 28	Bills are received as follows: for computer rental and on-line searches, £1,500; gas, £100; electricity, £200; and telephone/fax, £1,000.
Sept. 30	Legal assistant is paid salary of £1,800 for period to end of month.

In the Supplement to Chapter 2 a table was prepared, based on the accounting equation, showing the classification used for debit and credit bookkeeping entries. As a reminder, the form of the equation used to derive the debit and credit rules is:

Assets	equals	**Liabilities**	plus	**Ownership interest**

As a further reminder, the rules are set out again in Exhibit 3.9. Each of the transactions of P. Mason's legal practice for the month of September is now analysed in terms of the effect on the accounting equation and the resulting debit and credit entries which would be made in the accounting records.

Exhibit 3.9
Rules for debit and credit recording

	Debit entries in a ledger account	*Credit entries in a ledger account*
Left-hand side of the equation		
Asset	Increase	Decrease
Right-hand side of the equation		
Liability	Decrease	Increase
Ownership interest	Expense	Revenue
	Capital withdrawn	Capital contributed

Analysis of each transaction

Sept. 1 P. Mason deposits £140,000 in a bank account to commence the business under the name *P. Mason's legal practice*.

The business acquires an asset (cash in the bank) and an ownership interest is created through contribution of capital.

Transaction number: 1	*Debit*	*Credit*
Asset	Bank £140,000	
Ownership interest		Capital contributed £140,000

Sept. 1 P. Mason's legal practice borrows £150,000 from a finance business to help with the intended purchase of a property for use as an office. The loan is to be repaid in five years' time.

The business acquires an asset of cash and a long-term liability is created.

Transaction number: 2	*Debit*	*Credit*
Asset	Bank £150,000	
Liability		Long-term loan £150,000

Sept. 1 A property is purchased at a cost of £75,000 for the land and £175,000 for the buildings. The full price is paid from the bank account.

The business acquires an asset of land and buildings (£250,000 in total) and the asset of cash in the bank is reduced.

Transaction number: 3	*Debit*	*Credit*
Asset	Land and buildings £250,000	Bank £250,000

Sept. 3 Office furniture is purchased from Stylecraft at a cost of £30,000. The full price is to be paid within 90 days.

The business acquires an asset of furniture and also acquires a liability to pay the supplier, Stylecraft. The liability is called a trade payable (creditor).

Transaction number: 4	*Debit*	*Credit*
Asset	Furniture £30,000	
Liability		Trade payable (Stylecraft) £30,000

Sept. 5 An insurance premium of £540 is paid in advance. The insurance cover will commence on 1 October.

The business acquires an asset of prepaid insurance (the benefit of cover exists in the future) and the asset of cash at bank is reduced.

Transaction number: 5	*Debit*	*Credit*
Asset	Prepayment £540	Bank £540

Sept. 8 An applicant is interviewed for a post of legal assistant. She agrees to start work on 10 September for a salary of £24,000 per annum.

The successful outcome of the interview is an *event* and there is an expected future benefit from employing the new legal assistant. The employee will be controlled by the organisation through a contract of employment. The organisation has a commitment to pay her the agreed salary. It could be argued that the offer of employment, and acceptance of that offer, create an asset of the human resource and a liability equal to the future salary. That does not happen because the *recognition* conditions are applied and it is felt too risky to recognise an asset when there is insufficient evidence of the future benefit. Commercial prudence dictates that it is preferable to wait until the employee has done some work and pay her at the end of the month for work done during the month. The accounting process is similarly prudent and no accounting recognition takes place until the payment has occurred. Even then it is the expense of the past which is recognised, rather than the asset of benefit for the future.

Sept. 11 Invoices are sent to some clients showing fees due for work done in preparing contracts for them. The total of the invoiced amounts is £8,820. Clients are allowed up to 30 days to pay.

Earning fees is the main activity of the legal practice. Earning fees makes the owner better off and is an example of the more general activity *of increasing the ownership interest* by creating revenue. The clients have not yet paid and therefore the business has an asset called a **trade receivable (debtor)**.

Transaction number: 6	*Debit*	*Credit*
Asset	Trade receivables £8,820	
Ownership interest (revenue)		Fees for work done £8,820

Sept. 19 Cheques received from clients in payment of invoices amount to £7,620.

When the customers pay, the amount due to the business from debtors will be decreased. So the asset of trade receivables decreases and the asset of cash in the bank increases.

Transaction number: 7	*Debit*	*Credit*
Asset	Bank £7,620	Trade receivables £7,620

Sept. 26 Payment is made to Stylecraft for the amount due for office furniture, £30,000.

The asset of cash in the bank decreases and the liability to Stylecraft decreases to nil.

Transaction number: 8	*Debit*	*Credit*
Asset		Bank £30,000
Liability	Trade payable (Stylecraft) £30,000	

Sept. 28 Bills are received as follows: for computer rental and on-line searches, £1,500; gas, £100; electricity, £200; and telephone/fax £1,000 (total £2,800).

The computer rental, on-line searches, gas, electricity and telephone have been used up during the period and are all expenses which reduce the ownership interest. They are unpaid and, therefore, a liability is recorded.

Transaction number: 9	*Debit*	*Credit*
Liability		Trade payables £2,800
Ownership interest	Expenses £2,800	

Sept. 30 Legal assistant is paid salary of £1,800 for period to end of month.

The asset of cash at bank decreases and the salary paid to the legal assistant is an expense of the month.

Transaction number: 10	*Debit*	*Credit*
Asset		Bank £1,800
Ownership interest	Expense £1,800	

Summarising the debit and credit entries

The formal system of bringing together debit and credit entries is based on ledger accounts. These are explained in the supplement to Chapter 5. For the present it will be sufficient to use a spreadsheet (Exhibit 3.10) to show how the separate debit and credit entries analysed in this Supplement lead to the list of items used in the main part of the chapter as the basis for the financial statements presented there.

Exhibit 3.10

Spreadsheet of transactions for P. Mason's legal practice, during the month of September

	Assets					**Liabilities**		**Ownership interest**		
Date	*Land and buildings* £	*Office furniture* £	*Trade receivables* £	*Pre-payments* £	*Cash at bank* £	*Trade payables* £	*Bank loan* £	*Revenue* £	*Expenses* £	*Owner's capital contributed* £
1 Sept.					140,000 Dr					140,000 Cr
1 Sept.					150,000 Dr		150,000 Cr			
1 Sept.	250,000 Dr				250,000 Cr					
3 Sept.		30,000 Dr				30,000 Cr				
5 Sept.				540 Dr	540 Cr					
11 Sept.			8,820 Dr					8,820 Cr		
19 Sept.			7,620 Cr		7,620 Dr					
26 Sept.					30,000 Cr	30,000 Dr				
28 Sept.						2,800 Cr			2,800 Dr	
30 Sept.					1,800 Cr				1,800 Dr	
Total debit entries in each column										
	250,000 Dr	30,000 Dr	8,820 Dr	540 Dr	297,620 Dr	30,000 Dr	nil	nil	4,600 Dr	nil
Total credit entries in each column										
	nil	nil	7,620 Cr	nil	282,340 Cr	32,800 Cr	150,000 Cr	8,820 Cr	nil	140,000 Cr
Surplus of debits over credits (or credits over debits)										
	250,000 Dr	30,000 Dr	1,200 Dr	540 Dr	15,280 Dr	2,800 Cr	150,000 Cr	8,820 Cr	4,600 Dr	140,000 Cr

In the spreadsheet there are dates which correspond to the dates of the foregoing ten separate analyses of transactions. The debit and credit entries are shown with Dr or Cr alongside to distinguish them. For each column all the debit entries are totalled and all the credit entries are totalled separately. The surplus of debits over credits (or credits over debits) is calculated and shown in the final line. This allows a summarised list to be prepared as shown in Exhibit 3.11.

A spreadsheet is useful where there are not too many entries, but ledger accounts become essential when the volume of information increases.

Exhibit 3.11

Summary of debit and credit entries for each category of asset, liability and ownership interest

	Debit	*Credit*
	£	£
Assets		
Land and buildings	250,000	
Office furniture	30,000	
Trade receivables (debtors)	1,200	
Prepayment	540	
Cash at bank	15,280	
Liabilities		
Trade payables (creditors)		2,800
Long-term loan		150,000
Ownership interest		
Revenue		8,820
Expenses	4,600	
Capital contributed		140,000
Totals	*301,620*	*301,620*

Note: The totals of each column have no particular meaning, but they should always be equal because of the symmetry of the debit and credit records, and so are useful as an arithmetic check that no item has been omitted or recorded incorrectly.

Turning the spreadsheet back to a vertical listing, using the debit column for items where the debits exceed the credits, and using the credit column for items where the credits exceed the debits, the list becomes as in Exhibit 3.11. You will see that this list is the basis of the information provided about P. Mason's legal practice in the main body of the chapter, except that the debit and credit notation was not used there.

Activity 3.4

The most serious problem faced by most students, once they have understood the basic approach, is that of making errors. Look back through this Supplement and think about the errors which might have been made. What type of error would be detected by finding totals in Exhibit 3.11 which were not in agreement? What type of error would not be detected in this way because the totals would be in agreement despite the error? Types of error will be dealt with in the supplement to Chapter 5.

S Test your understanding

S3.1 [S] Analyse the debit and credit aspect of each transaction listed at (a), (b) and (c) of question **B3.2**.

S3.2 Prepare a spreadsheet similar to that presented in Exhibit 3.10, setting out on the first line the items contained in the list of assets and liabilities of question **B3.2** and then on lines 2, 3 and 4 adding in the transactions (a), (b) and (c). Calculate the totals of each column of the spreadsheet and show that the accounting equation remains equal on both sides.