# 20 Working capital

This chapter covers syllabus section 3.3

# On completing this chapter you should be able to:

- define working capital and explain the working capital cycle
- prepare a cash-flow forecast from given information
- evaluate strategies for dealing with liquidity problems.

## **SETTING THE SCENE**

## Asian Glasses runs out of cash

Asian Glasses had been making spectacles for years but had reached a critical point with no sales growth and low profits. A new managing director, Jerry Xue, did not take long to make changes. He aimed to raise the annual sales revenue from \$1 million to \$4 million in two years by specialising in fashion sunglasses. New designs were developed. Jerry's contacts within the industry helped him gain big orders from some of the leading retailers. The sunglasses sold for high prices. These large orders were profitable, but there was a major problem. The biggest retailers were the slowest payers as they expected several months of credit. They also demanded such high standards that some production had to be scrapped.

Jerry started to worry about the firm's cash position. Suppliers were demanding payment. The bank overdraft had reached record levels. Overtime working by staff to complete orders on time took cash out of the business. Then Jerry discovered that his bookkeeper had not included transport costs in the monthly cash-flow forecast – the business had even less money than they thought.

The situation went from bad to worse. On the day that Jerry had appointments with a department store buyer in the morning and the bank manager in the afternoon, the glass lens machine broke down and a major supplier refused to supply materials. Within weeks, the assets of the business had been sold off and the creditors owed money by Asian Glasses received a fraction of what they were owed.



#### Points to think about:

- As the business is profitable, how could Asian Glasses run out of cash?
- How useful would an accurate forecast of cash flows have been to Jerry?
- What could Jerry have done to improve the cash position of Asian Glasses?
- Why did this business need day-to-day finance?

## Introduction

Working capital is often described as the 'lifeblood' of a business. All businesses need finance to pay for everyday expenses such as wages and the purchase of stock.

Without sufficient working capital a business will be illiquid – unable to pay its immediate or short-term debts. Either the business raises finance quickly – such as a bank loan – or it may be forced into 'liquidation' by its creditors, the firms it owes money to.

#### **▼ KEY TERMS**

working capital the capital needed to pay for raw materials, day-to-day running costs and credit offered to customers. In accounting terms: making capital = current assets - current liabilities

**liquidity** the ability of a firm to be able to pay its short-term debts

**liquidation** when a firm ceases trading and its assets are sold for cash

## Where does working capital come from?

The simple calculation for working capital is: current assets less current liabilities. Current assets are stocks, debtors and cash. Virtually no business could survive without these three assets, although some business owners refuse to sell any products on credit so there will be no debtors. This is very rare for businesses beyond a certain size.

Where does the capital come from to purchase and hold these current assets? Most businesses will obtain some of this finance in the form of current liabilities—overdrafts and creditors are the main forms. However, it would be unwise to obtain all of the funds needed from these sources. First, they may have to be repaid at very short notice, meaning the firm is again left with a liquidity problem. Secondly, it will leave no working capital for buying additional stocks or extending further credit to customers when required.

#### **HOW MUCH IS NEEDED?**

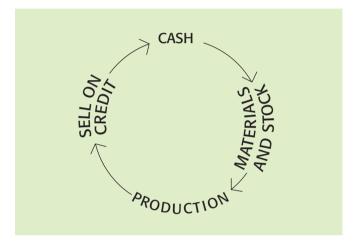
Sufficient working capital is essential to prevent a business from becoming illiquid and unable to pay its debts. Too high a level of working capital is a disadvantage; the opportunity cost of too much capital tied up in stocks, debtors and idle cash is the return that money could earn elsewhere in the business – invested in fixed assets perhaps.

The working capital requirement for any business will depend upon the 'length' of this 'working capital cycle'.

## **KEY TERM**

working capital cycle the period of time between spending cash on the production process and receiving cash payments from customers

The longer this time period from buying materials to receiving payment from customers, the greater will be the working capital needs of the business. Figure 20.1 shows the simple cycle of a business that produces goods but neither asks for nor offers credit. Credit given to customers by the business will lengthen the time before a sale is turned into cash – extending the working capital cycle. Credit received by the business from suppliers will reduce the length of this cycle. To give more credit than is received is to increase the need for working capital. To receive more credit than is given is to reduce the need for working capital.



**Figure 20.1** The simple working capital cycle – the longer this cycle takes to complete, the more working capital a business will need

## **ACTIVITY 20.1**

Sheila and her friend Alison have decided to run their own mobile hairdressing business using the training they have received at college and the experience they both gained working for three years for a local hairdresser. Investigate, locally, the equipment and working stock they will need. From this, estimate the capital they will need to set up the business and survive the first year. Write a brief report on your findings.

## The importance of cash flow

The Asian Glasses case study in 'Setting the scene' above allows us to see the importance of cash flow to all businesses – even those that claim to be making a profit! Profit does not pay the bills and expenses of running a business – but cash does. Of course, profit is important – especially in the long term when investors expect rewards and the business needs additional finance for investment. Cash is always important – short and long term. Cash flow relates to the timing of payments to workers

#### **ACTIVITY 20.2**

Read the case study below and then answer the questions that follow.

## **Directphone Ltd**

Directphone Ltd operates a direct insurance service to motorists. As part of a recent expansion programme, the finance director calculated that stocks of stationery, such as insurance certificates, would have to rise by 10% from \$10 000. More motorists would be encouraged to use the company by being offered extended credit terms. This would increase debtors to an estimated \$50 000 from the existing \$40 000. Cash reserves to pay out for accidents would rise to \$35 000 from \$30 000. The only

current liability was creditors (garages that had not yet been paid for accident work). This amounted to \$40 000 and the director hoped to be allowed to increase this to \$50 000.

## 10 marks, 18 minutes

- 1 Calculate the proposed increase in the working capital requirements of the business resulting from the expansion.
- [6]
- 2 Outline two ways in which this increase in working capital might be financed.

[4]

and suppliers and receipts from customers. If a business does not plan the timing of these payments and receipts carefully, it may run out of cash even though it is operating profitably. If suppliers and creditors are not paid in time, they can force the business into liquidation of its assets if it appears to be insolvent.

## KEY TERMS

cash flow the sum of cash payments to a business (inflows) less the sum of cash payments made by it (outflows)
 liquidation turning assets into cash may be insisted on by courts if suppliers have not been paid
 insolvent when a business cannot meet its short-term debts

So, cash flow is certainly important, especially to small business start-ups. Cash-flow planning is vital for entrepreneurs for several reasons:

- Business start-ups are often offered much less time to pay suppliers than larger, well-established firms – they are given shorter credit periods.
- Banks and other lenders may not believe the promises of new business owners as they have no trading record.
   They will expect payment at the agreed time.
- Finance is often very tight at start-up, so not planning accurately is of even more significance for new businesses.

## Cash and profit

Cash and profit – what's the difference? To many failed business owners there was none – which is why their business collapsed. It is very common for profitable businesses to run short of cash. On the other hand, loss-making businesses can have high cash inflows in the short term.

The essential difference between cash and profit can be explained with a simple example.

## Example

Shula owns Fine Foods, a specialist delicatessen. Last month she bought \$500 of fresh goods from a supplier who offers her one month's credit. The goods sold very slowly during the month and she was forced to cut her prices several times. Eventually, she sold them all for only \$300, paid in cash by her customers.

- What was her profit or loss (ignoring all other costs)? A loss of \$200 because even though she has not yet paid for the goods they are still recorded as a cost.
- What was the difference between her cash outflow and inflow? A positive inflow \$300 – because she has not paid the supplier yet. So Shula has a positive cash flow from these goods this month even though she made a loss on them.
- Cash was not the same as profit for this business.

## **KEY TERMS**

**cash inflows** payments in cash received by a business, such as those from customers (debtors) or from the bank, e.g. receiving a loan

outflows payments in cash made by a business, such as those to suppliers and workers

#### **EXAM TIP**

When given the opportunity, emphasise the importance of having enough cash in the short term. Profit can wait to be earned in the long term – but cash payments are always being made.

## Forecasting cash flow

Forecasting cash flow is estimating future cash inflows and cash outflows, usually on a month-by-month basis. Let's take the case of Mohammed, an entrepreneur planning to open a car-valeting service offering car cleaning to individual customers and owners of car fleets, such as taxi firms.

#### FORECASTING CASH INFLOWS

Where to start? The business owner will probably attempt to forecast cash inflow first. Some of these will be easier to forecast than others. Here are some examples of cash inflows and how they might be forecast:

- Owners' own capital injection easy to forecast as this is under Mohammed's direct control.
- Bank loan payments easy to forecast if they have been agreed with the bank in advance, both in terms of amount and timing.
- Customers' cash purchases difficult to forecast as they depend on sales, so a sales forecast will be necessary – but how accurate might this be?
- Debtors' payments difficult to forecast as these depend on two unknowns. First, what is the likely level of sales on credit and, secondly, when will debtors actually pay? One month's credit may have been agreed with them, but payment after this period can never be guaranteed.

## KEY TERM

**debtors** customers who have bought products on credit and will pay cash at an agreed date in the future

## FORECASTING CASH OUTFLOWS

Again, some of these will be much easier to forecast than others. Here are some examples:

- Lease payment for premises easy to forecast as this will be in the estate agent's details of the property.
- Annual rent payment easy to forecast as this will be fixed and agreed for a certain time period. The landlord may increase the rent after this period, however.
- Electricity, gas, water and telephone bills difficult to forecast as these will vary with so many factors, such as the number of customers, seasonal weather conditions and energy prices.
- Labour cost payments these forecasts will be based largely on demand forecasts and the hourly wage rate that is to be paid. These payments could vary from week to week if demand fluctuates and if staff are on flexible contracts.

Variable cost payments such as cleaning materials – the
cost of these should vary consistently with demand, so
revenue forecasts could be used to assess variable costs
too. How much credit will be offered by suppliers? The
longer the period of credit offered, the lower will be the
start-up cash needs of the business.

## **EXAM TIP**

Never fall into the trap of referring to forecasts as **actual** accounts – they are financial estimates that are dealing with the future.

## Structure of cash-flow forecasts

Due to the crucial importance of cash as the lifeblood of any successful business, all firms should engage in cashflow forecasting to help identify cash-flow problems before it is too late.

A simplified cash-flow forecast is shown in Table 20.1. It is based on Mohammed's car-valeting service. Although there are different styles of presenting this information, all cash-flow forecasts have three basic sections:

- **Section 1 Cash inflows** This section records the cash payments to the business, including cash sales, payments for credit sales and capital inflows.
- **Section 2 Cash outflows** This section records the cash payments made by the business, including wages, materials, rent and other costs.
- Section 3 Net monthly cash flow and opening and closing balance This shows the net cash flow for the period and the cash balances at the start and end of the period—the opening cash balance and the closing cash balance. If the closing balance is negative (shown by a figure in brackets), then a bank overdraft will almost certainly be necessary to finance this.

## **KEY TERMS**

cash-flow forecast estimate of a firm's future cash inflows and outflows

**net monthly cash flow** estimated difference between monthly cash inflows and outflows

**opening cash balance** cash held by the business at the start of the month

closing cash balance cash held at the end of the month becomes next month's opening balance

What does the forecast in Table 20.1 tell Mohammed about the prospects for his business? In cash terms, the business appears to be in a good position at the end of four months. This is because:

	All figures in £000	Jan	Feb	Mar	Apr
Cash inflows					
	Owner's capital injection	6	0	0	0
	Cash sales	3	4	6	6
	Payments by debtors	0	2	2	3
	Total cash in	9	6	8	9
Cash outflows					
	Lease	8	0	0	0
	Rent	1	1	1	1
	Materials	0.5	1	3	2
	Labour	1	2	3	3
	Other costs	0.5	1	0.5	1.5
	Total cash out	11	5	7.5	7.5
Net cash flow	Net monthly cash flow	(2)	1	0.5	1.5
	Opening balance	0	(2)	(1)	(0.5)
	Closing balance	(2)	(1)	(0.5)	1

**Table 20.1** Mohammed's cash-flow forecast for the first four months (figures in brackets are negative)

- in April the closing cash balance is positive, so the bank overdraft has been fully repaid
- there was only one month—the first month of operation—in which the monthly net cash flow was negative
- the monthly net cash flow is increasing each month.

Remember, these are only forecasts – the accuracy of the cash-flow forecast will depend greatly on how accurate Mohammed was in his demand, revenue and material cost forecasts.

## **ACTIVITY 20.3**

#### 4 marks, 7 minutes

Think of **one** more likely cash payment that could be received by a business and **one** more cash payment made by a business.

## **ACTIVITY 20.4**

## April cash flow

## 8 marks, 14 minutes

Using Table 20.1, draw up a revised cash-flow forecast for April assuming:

- cash sales are forecast to be \$1000 higher
- materials are forecast to be \$500 higher
- other costs are forecast to be \$1000 higher.

[8]

## Benefits of cash-flow forecasts

Cash-flow forecasting has a number of benefits, especially for start-up businesses:

- By showing periods of negative cash flow, plans can be put in place to provide additional finance, e.g. arranging a bank overdraft or preparing to inject more owner's capital.
- If negative cash flows appear to be too great, then plans can be made for reducing these, e.g. by cutting down on purchase of materials or machinery or by not making sales on credit, only for cash.
- A new business proposal will never progress beyond the initial planning stage unless investors and bankers have access to a cash-flow forecast – and the assumptions that lie behind it.

## Limitations of cash-flow forecasts

Although an entrepreneur should take every reasonable step to improve the accuracy of cash-flow forecasts, it would be unwise to assume that they will always be accurate. So many factors, either internal to the business or in the external environment, can change to blow a cash-flow forecast off course. This does not make them useless – but they must be used with caution. Here are the most common limitations of them:

- Mistakes can be made in preparing the revenue and cost forecasts or they may be drawn up by inexperienced entrepreneurs or staff.
- Unexpected cost increases can lead to major inaccuracies in forecasts. For example, fluctuations in oil prices can cause the cash-flow forecasts of even major airlines to be misleading.
- Wrong assumptions can be made in estimating the sales
  of the business, perhaps based on poor market research,
  and this will make the cash-inflow forecasts inaccurate.

## **ACTIVITY 20.5**

Read the case study below and then answer the questions that follow.

## Fashion-shop forecasts look good

'I have stood outside some of these fashion shops for hours counting the number of people coming out with their carrier bags and I am convinced my sales forecasts are OK,' announced Sayuri to her business partner, Korede. They were both putting the finishing touches to their business plan for an exclusive 'top brands only' fashion store in the city. Sayuri's primary research was not the only evidence they had used in arriving at the sales forecasts and the cash-inflow forecasts. Some desk research on the internet had also revealed the rapid growth of high-income consumer numbers spending increasing amounts on expensive clothing.

Cash-outflow forecasts had been based on estimates of electricity and telephone usage. Korede had found what he thought was a suitable shop, so they knew how much the rent would be. They would pay themselves a salary of £2000 a month each initially. Other labour costs were less certain. Should they employ full-time salaried staff or part-time hourly wage employees? The cost of buying the clothes was also uncertain. There would be no problem if they sold all the suits and dresses that they bought in – but how likely was that? And what would happen to cash-flow forecasts if stock was left unsold and huge price reductions had to be advertised? Both Sayuri and Korede realised why they had to construct a cash-flow forecast for their business plan. The almost completed forecast is shown below.

	All figures in \$000	April	May	June	July
Cash inflows					
	Owner's capital injection	28	0	0	0
	Cash sales	6	8	12	9
	Payments by debtors (e.g. credit card companies)	0	2	2	3
	Total cash in	34	10	14	12
Cash outflows					
	Lease	18	0	0	0
	Rent	2	2	2	2
	Clothes purchases	6	4	3	4
	Labour	3	3	4	3
	Other costs	6.5	2	2.5	1.5
	Total cash out	35.5	11	11.5	у
Net cash flow	Net monthly cash flow	X	(1)	2.5	Z
	Opening balance	0	(1.5)	(2.5)	0
	Closing balance	(1.5)	(2.5)	0	1.5

[3]

[6]

## 26 marks, 45 minutes

- 1 Complete the cash-flow forecast by inserting values for *x*, *y* and *z*.
- 2 Analyse **two** problems that Sayuri and Korede might have experienced when drawing up their cash-flow forecast.
- 3 The first three months' actual trading was poor and cash sales were 20% below forecast. Draw up a new cash-flow forecast for July assuming 20% lower cash sales, 20% lower clothes purchases, an opening cash balance of (£2000); all other factors remain unchanged. [7]
- 4 To what extent would drawing up a cash-flow forecast increase the chances of this business being successful?

[10]

## Causes of cash-flow problems

#### LACK OF PLANNING

Cash-flow forecasts help greatly in predicting future cash problems for a business. This form of financial planning can be used to predict potential cash-flow problems so that business managers can take action to overcome them in plenty of time.

## **EXAM TIP**

Remember, cash-flow forecasts do not solve cash-flow problems by themselves – but they are an essential part of financial planning and can help prevent cash-flow problems from developing.

#### POOR CREDIT CONTROL

The credit control department of a business keeps a check on all customers' accounts – who has paid, who is keeping to agreed credit terms and which customers are not paying on time. If this credit control is inefficient and badly managed, then debtors will not be 'chased up' for payment and potential bad debts will not be identified.

#### **KEY TERMS**

credit control monitoring of debts to ensure that credit periods are not exceeded

**bad debt** unpaid customers' bills that are now very unlikely to ever be paid

#### ALLOWING CUSTOMERS TOO MUCH CREDIT

In many trading situations, businesses will have to offer trade credit to customers in order to be competitive. Assume a customer has a choice between two suppliers selling very similar products. If one insists on cash payment 'on delivery' and the other allows two months' trade credit, then customers will go for credit terms because it improves their cash flow. Allowing customers too long to pay means reducing short-term cash inflows, which could lead to cash-flow problems.

## **EXPANDING TOO RAPIDLY**

When a business expands rapidly, it has to pay for the expansion and for increased wages and materials months before it receives cash from additional sales. This overtrading can lead to serious cash-flow shortages – even though the business is successful and growing.

## KEY TERM

overtrading expanding a business rapidly without obtaining all of the necessary finance so that a cash-flow shortage develops

#### **UNEXPECTED EVENTS**

Unforeseen increases in costs – a breakdown of a delivery van that needs to be replaced, or a dip in predicted sales income, or a competitor lowers prices unexpectedly – could lead to negative net monthly cash flows.

## **ACTIVITY 20.6**

#### Taxi firm's cash flow

#### 8 marks, 14 minutes

How would the following events be likely to affect the cash flow of a taxi operating company?

- An increase in oil prices.
- An increase in unemployment.
- Lower train fares.

[8]

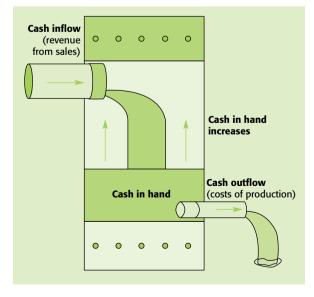
## Ways to improve cash flow

There are two main ways to improve net cash flow:

- increase cash inflows
- reduce cash outflows (see Figure 20.2).

Care needs to be taken here – the aim is to improve the cash position of the business, **not** sales revenue or profits. These are different concepts. For example, a decision to advertise more in order to increase sales, which will eventually lead to increased cash flows, will make the short-term cash position worse as the advertising has to be paid for.

Tables 20.2 and 20.3 outline the methods used to increase cash inflows and reduce cash outflows.



**Figure 20.2** Symbolic drawing of cash-flow 'tank' with leakages and injections of cash

Method to increase cash flow	How it works	Evaluation
Overdraft	Flexible loans can be arranged on which the business can draw as necessary up to an agreed limit.	<ul> <li>Interest rates can be high – there may be an overdraft arrangement fee.</li> <li>Overdrafts can be withdrawn by the bank and this often causes insolvency.</li> </ul>
Short-term loan	A fixed amount can be borrowed for an agreed length of time.	<ul><li> The interest costs have to be paid.</li><li> The loan must be repaid by the due date.</li></ul>
Sale of assets	Cash receipts can be obtained from selling off redundant assets, which will boost cash inflow.	<ul> <li>Selling assets quickly can result in low price.</li> <li>The assets might be required at a later date for expansion.</li> <li>The assets could have been used as collateral for future loans.</li> </ul>
Sale and leaseback	Assets can be sold, e.g. to a finance company, but the asset can be leased back from the new owner.	<ul> <li>The leasing costs add to annual overheads.</li> <li>There could be loss of potential profit if the asset rises in price.</li> <li>The assets could have been used as collateral for future loans.</li> </ul>
Reduce credit terms to customers	Cash flow can be brought forward by reducing credit terms from, say, two months to one month.	Customers may purchase products from firms that offer extended credit terms.
Debt factoring	Debt-factoring companies can buy the customers' bills from a business and offer immediate cash – this reduces the risk of bad debts too.	<ul> <li>Only about 90–95% of the debt will now be paid by the debt-factoring company – this reduces profit.</li> <li>The customer has the debt collected by the finance company – this could suggest that the business is in trouble.</li> </ul>

 Table 20.2
 Ways to increase cash inflows and their possible drawbacks

## EXAM TIP

When answering an examination question about improving cash flow, just writing 'the firm should increase sales' will not demonstrate a true understanding of the difference between sales revenue and cash flow.

## **EXAM TIP**

If you suggest 'cutting staff and cheaper materials', this may reduce cash outflows, but what will be the negative impact on output, sales and future cash inflows? This suggestion will nearly always be inappropriate for an examination question on improving cash flow.

Method to reduce cashflow	How it works	Evaluation
Delay payments to suppliers (creditors)	Cash outflows will fall in the short term if bills are paid after, say, three months instead of two months.	<ul> <li>Suppliers may reduce any discount offered with the purchase.</li> <li>Suppliers can either demand cash on delivery or refuse to supply at all if they believe the risk of not being paid is too great.</li> </ul>
Delay spending on capital equipment	By not buying equipment, vehicles and so on, cash will not have to be paid to suppliers.	<ul> <li>The business may become less efficient if outdated and inefficient equipment is not replaced.</li> <li>Expansion becomes very difficult.</li> </ul>
Use leasing not outright purchase of capital equipment	The leasing company owns the asset and no large cash outlay is required.	<ul> <li>The asset is not owned by the business.</li> <li>Leasing charges include an interest cost and add to annual overheads.</li> </ul>
Cut overhead spending that does not directly affect output, e.g. promotion costs	These costs will not reduce production capacity and cash payments will be reduced.	<ul> <li>Future demand may be reduced by failing to promote the products effectively.</li> </ul>

 Table 20.3
 Ways to reduce cash outflows and their possible drawbacks



## THEORY OF KNOWLEDGE

Thousands of firms have gone out of business in California since the recession hit the state in 2008. Panicky bank managers have been quick to call in overdrafts and loans if businesses look vulnerable and are slow to make repayments. This has brought misery to many owners and employees in California's ailing economy.

In groups, discuss the following question: 'Is it ethical for banks to call in their loans and force a business into bankruptcy if it falls behind with its repayments?'

## **OVER TO YOU**

## **REVISION CHECKLIST**

- 1 Explain the working capital cycle for (a) a shipbuilding business, (b) a sweet shop.
- 2 Outline **two** reasons why businesses should prepare cash-flow forecasts.
- 3 Explain why a bank manager would be particularly keen to see a cash-flow forecast in the business plan of a new business when applying for a loan.
- 4 What is meant by 'monthly net cash flow'?
- 5 What is meant by 'closing cash balance'?
- 6 How can sale and leaseback of fixed assets improve business cash flow?
- 7 Is there any purpose in cash-flow forecasts if they can be made inaccurate by external events?
- 8 How could a business vary its debtor/creditor policy to improve its cash-flow position?
- 9 How does a cash-flow forecast assist a business in planning its finance requirements?
- 10 What particular problems would a new business have in establishing a cash-flow forecast?

## **REVISION ACTIVITY**

Read the case study below and then answer the questions that follow.

## Cash flow drying up for Indian small firms

Madhu Gupta has a problem. His company, Mojj Engineering Systems, makes large-scale equipment for food and chemical plants. His customers keep ringing up and saying: 'We don't need the equipment yet – hold it in stock,' 'Can we have an extra discount?' or even 'We will only buy it if you give us credit.'

'Three months ago we had no idea things could happen as quickly as this,' said Mr Gupta. 'It was too sudden to prepare for it.' He was, of course, complaining about the global recession and the speed with which it hit many businesses.

Mr Gupta has already paid cash for all of his raw materials. Completed machines are filling up the yard in his factory. He will not get the money back for materials bought, or for labour costs, until he delivers these machines and is paid for them. The finance the business was planning to use for expansion to a new factory is now being used to pay for the increase in working capital.

## 24 marks, 40 minutes

- 1 Explain the term 'working capital'. [3]
- 2 Explain why Mr Gupta is finding it so difficult to control his working capital.[9]
- 3 Evaluate three ways in which Mr Gupta could try to reduce the finance tied up in working capital. [12]

## **EXAM PRACTICE QUESTION**

Read the case study below and then answer the questions that follow.

# 'COFFEE CALL' SEEKS FUNDS FOR EXPANSION

Coffee Call is a small, independent coffee shop. It is run by two brothers, Erin and Carl Shutter. They are keen to increase sales by using the shop space more effectively and installing three new tables. This will, however, require a significant investment and the brothers have approached the bank with a business plan for the expansion with the aim of securing loan finance. The brothers have also been approached by a venture capitalist who is willing to fund the expansion in return for a 20% stake in Coffee Call. The brothers are concerned to keep the liquidity of the business secure during the expansion.

The following cash-flow data have been produced by Coffee Call's accountant for the period January to June:

- Sales for the first three months of the year will be \$20000, rising to \$40000 in the following three months once Coffee Call has installed the extra seating.
- Material costs are 50% of sales and are paid each month.
- Electricity and gas cost \$4000, with half paid in February and the remainder in September.
- Staff wages of \$2000 are paid each month, but this will rise to \$3000 after three months once Coffee Call has expanded.
- Erin and Carl draw \$10 000 each out of the business in March and December.
- Marketing costs of \$500 are paid each month.
- A loan of \$20000 is taken out in February to fund the expansion.
- The \$20 000 cost of fitting the new tables is paid in March.
- The brothers believe the tables can be fitted in three days without any disruption to sales.
- The opening cash balance is \$7000.

## 25 marks, 45 minutes

- 1 Define the following terms:
  - **a** loan finance
  - **b** liquidity.

[4]

- 2 Explain why material costs have been forecast to be 50% of sales. [4]
- 3 Draw up a cash-flow forecast for Coffee Call for the first six months of the year.[8]
- 4 Discuss the advantages and disadvantages of Coffee Call using the venture capitalist as a source of finance. [9]