



3

Short-term finance and the management of working capital

Learning objectives

After studying this chapter, you should have achieved the following learning objectives:

- an appreciation of the importance of working capital management in ensuring the profitability and liquidity of a company;
- the ability to describe the cash conversion cycle and to explain its significance to working capital management;
- an understanding of the need for working capital policies concerning the level of investment in current assets, and of the significance of aggressive, moderate and conservative approaches to working capital management;
- an understanding of the link between the sources of short-term finance available to a company and working capital policies concerning the financing of current assets;
- the ability to describe and discuss a range of methods for managing inventory, cash, trade receivables and trade payables;
- the ability to evaluate, at an introductory level, the costs and benefits of proposed changes in working capital policies;
- an understanding of how factoring and invoice discounting can assist in the management of working capital.



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Introduction

Long-term investment and financing decisions give rise to future cash flows which, when discounted by an appropriate cost of capital, determine the market value of a company. However, such long-term decisions will only result in the expected benefits for a company if attention is also paid to short-term decisions regarding current assets and liabilities. *Current assets and liabilities*, that is, assets and liabilities with maturities of less than one year, need to be carefully managed. *Net working capital* is the term given to the difference between current assets and current liabilities: current assets may include inventories of raw materials, work-in-progress and finished goods, trade receivables, short-term investments and cash, while current liabilities may include trade payables, overdrafts and short-term loans.

The level of current assets is a key factor in a company's liquidity position. A company must have or be able to generate enough cash to meet its short-term needs if it is to continue in business. Therefore, working capital management is a key factor in the company's long-term success: without the 'oil' of working capital, the 'engine' of non-current assets will not function. The greater the extent to which current assets exceed current liabilities, the more solvent or liquid a company is likely to be, depending on the nature of its current assets.

3.1 The objectives of working capital management

To be effective, working capital management requires a clear specification of the objectives to be achieved. The two main objectives of working capital management are to increase the profitability of a company and to ensure that it has sufficient liquidity to meet short-term obligations as they fall due and so continue in business (Pass and Pike 1984). Profitability is related to the goal of shareholder wealth maximisation, so investment in current assets should be made only if an acceptable return is obtained. While liquidity is needed for a company to continue in business, a company may choose to hold more cash than is needed for operational or transaction needs, for example for precautionary or speculative reasons. The twin goals of profitability and liquidity will often conflict since liquid assets give the lowest returns. Cash kept in a safe will not generate a return, for example, while a six-month bank deposit will earn interest in exchange for loss of access for the six-month period.

3.2 Working capital policies

Because working capital management is so important, a company will need to formulate clear policies concerning the various components of working capital. Key policy areas relate to the level of investment in working capital for a given level of operations and the extent to which working capital is financed from short-term funds such as a bank overdraft.

A company should have working capital policies on the management of inventory, trade receivables, cash and short-term investments in order to minimise the possibility of

managers making decisions which are not in the best interests of the company. Examples of such suboptimal decisions are giving credit to customers who are unlikely to pay and ordering unnecessary inventories of raw materials. Sensible working capital policies will reflect corporate decisions on: the *total* investment needed in current assets, i.e. the overall level of investment; the amount of investment needed in each *type* of current asset, i.e. the mix of current assets; and the way in which current assets are to be financed.

Working capital policies need to consider the nature of the company's business since different businesses will have different working capital requirements. A manufacturing company will need to invest heavily in spare parts and components and might be owed large amounts of money by its customers. A food retailer will have large inventories of goods for resale but will have very few trade receivables. The manufacturing company clearly has a need for a carefully thought out policy on receivables management, whereas the food retailer may not grant any credit at all.

Working capital policies will also need to reflect the credit policies of a company's close competitors, since it would be foolish to lose business because of an unfavourable comparison of terms of trade. Any expected fluctuations in the supply of or demand for goods and services, for example due to seasonal variations in business, must also be considered, as must the impact of a company's manufacturing period on its current assets.

3.2.1 The level of working capital

An *aggressive* policy with regard to the level of investment in working capital means that a company chooses to operate with lower levels of inventory, trade receivables and cash for a given level of activity or sales. An aggressive policy will increase profitability since less cash will be tied up in current assets, but it will also increase risk since the possibility of cash shortages or running out of inventory is increased.

A *conservative* and more flexible working capital policy for a given level of turnover would be associated with maintaining a larger cash balance, perhaps even investing in short-term securities, offering more generous credit terms to customers and holding higher levels of inventory. Such a policy will give rise to a lower risk of financial problems or inventory problems, but at the expense of reducing profitability.

A *moderate* policy would tread a middle path between the aggressive and conservative approaches. All three approaches are shown in Figure 3.1.

It should be noted that the working capital policies of a company can be characterised as aggressive, moderate or conservative only by comparing them with the working capital policies of similar companies. There are no absolute benchmarks of what may be regarded as aggressive or otherwise, but these characterisations are useful for analysing the ways in which individual companies approach the operational problem of working capital management.

3.2.2 Short-term finance

Short-term sources of finance include overdrafts, short-term bank loans and trade credit.

An *overdraft* is an agreement by a bank to allow a company to borrow up to a certain limit without the need for further discussion. The company will borrow as much

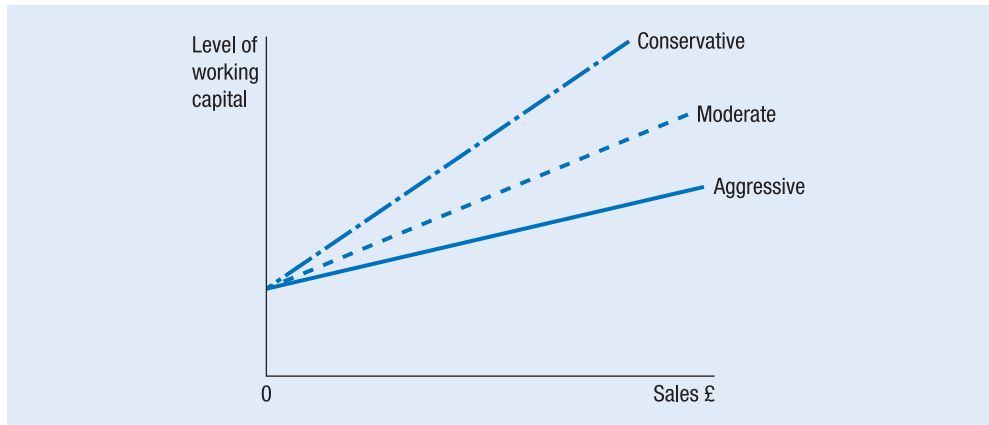


Figure 3.1 Different policies regarding the level of investment in working capital

or as little as it needs up to the overdraft limit and the bank will charge daily interest at a variable rate on the debt outstanding. The bank may also require security or collateral as protection against the risk of non-payment by the company. An overdraft is a flexible source of finance in that a company only uses it when the need arises. However, an overdraft is technically repayable on demand, even though a bank is likely in practice to give warning of its intention to withdraw agreed overdraft facilities.

A *short-term loan* is a fixed amount of debt finance borrowed by a company from a bank, with repayment to be made in the near future, for example after one year. The company pays interest on the loan at either a fixed or a floating (i.e. variable) rate at regular intervals, for example quarterly. A short-term bank loan is less flexible than an overdraft, since the full amount of the loan must be borrowed over the loan period and the company takes on the commitment to pay interest on this amount, whereas with an overdraft interest is only paid on the amount borrowed, not on the agreed overdraft limit. As with an overdraft, however, security may be required as a condition of the short-term loan being granted.

Trade credit is an agreement to take payment for goods and services at a later date than that on which the goods and services are supplied to the consuming company. It is common to find one, two or even three months' credit being offered on commercial transactions and trade credit is a major source of short-term finance for most companies.

Short-term sources of finance are usually *cheaper* and *more flexible* than long-term ones. Short-term interest rates are usually lower than long-term interest rates, for example, and an overdraft is more flexible than a long-term loan on which a company is committed to pay fixed amounts of interest every year. However, short-term sources of finance are riskier than long-term sources from the *borrower's* point of view in that they may not be renewed (an overdraft is, after all, repayable on demand) or may be renewed on less favourable terms (e.g. when short-term interest rates have increased). Another source of risk for the short-term borrower is that interest rates are more volatile in the short term than in the long term and this risk is compounded if floating rate short-term debt (such as an overdraft) is used. A company must clearly balance

profitability and *risk* in reaching a decision on how the funding of current and non-current assets is divided between long-term and short-term sources of funds.

3.2.3 Financing working capital

The trade-off between risk and return which occurs in policy decisions regarding the level of investment in current assets is also significant in the policy decision on the relative amounts of finance of different maturities in the balance sheet, i.e. on the choice between short- and long-term funds to finance working capital. To assist in the analysis of policy decisions on the financing of working capital, we can divide a company's assets into three different types: non-current assets, permanent current assets and fluctuating current assets (Cheatham 1989). *Non-current assets* are long-term assets from which a company expects to derive benefit over several periods, for example factory buildings and production machinery. *Permanent current assets* represent the core level of investment needed to sustain normal levels of business or trading activity, such as investment in inventories and investment in the average level of a company's trade receivables. *Fluctuating current assets* correspond to the variations in the level of current assets arising from normal business activity.

A *matching funding policy* is one which finances fluctuating current assets with short-term funds and permanent current assets and non-current assets with long-term funds. The maturity of the funds roughly matches the maturity of the different types of assets. A *conservative funding policy* uses long-term funds to finance not only non-current assets and permanent current assets, but some fluctuating current assets as well. As there is less reliance on short-term funding, the risk of such a policy is lower, but the higher cost of long-term finance means that profitability is reduced as well. An *aggressive funding policy* uses short-term funds to finance not only fluctuating current assets, but some permanent current assets as well. This policy carries the greatest risk to solvency, but also offers the highest profitability and increases shareholder value. These three funding policies are illustrated in Figure 3.2.

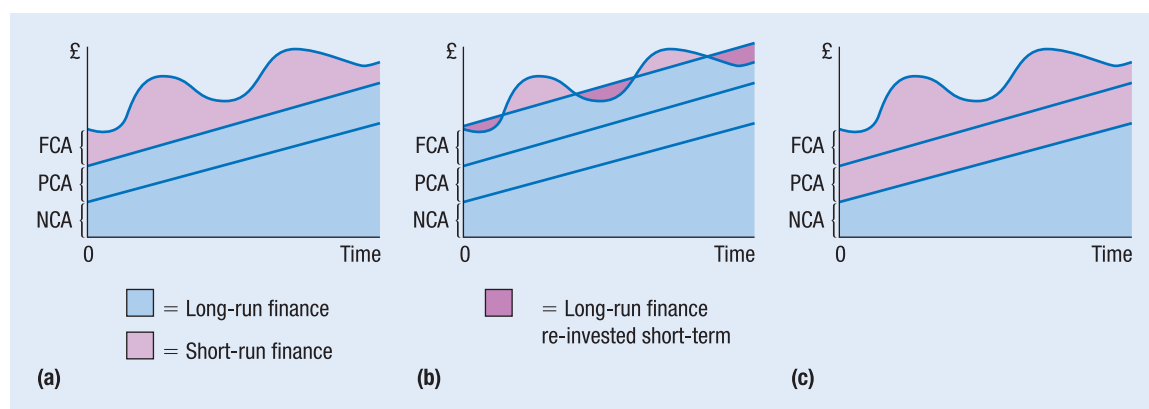


Figure 3.2 The (a) matching, (b) conservative and (c) aggressive approaches to the relative proportions of the long- and short-term debt used to finance working capital

3.3 Working capital and the cash conversion cycle

Working capital can be viewed *statically* as the balance between current assets and current liabilities, for example by comparing the balance sheet figures for inventory, trade receivables, cash and trade payables. Alternatively, working capital can be viewed *dynamically* as an equilibrium between the income-generating and resource-purchasing activities of a company (Pass and Pike 1984), in which case it is closely linked to the cash conversion cycle (*see* Section 2.4.4).

The *cash conversion cycle*, which represents the interaction between the components of working capital and the flow of cash within a company, can be used to determine the amount of cash needed for any sales level. It is the *period of time* between the outlay of cash on raw materials and the inflow of cash from the sale of finished goods, and represents the number of days of operation for which financing is needed. The longer the cash conversion cycle, the greater the amount of investment required in working capital. The length of the cash conversion cycle depends on the length of:

- the inventory conversion period;
- the trade receivables collection period;
- the trade payables deferral period.

The *inventory conversion period* is the average time taken to use up raw materials, plus the average time taken to convert raw materials into finished goods, plus the average time taken to sell finished goods to customers. The inventory conversion period might be several months for an engineering or manufacturing company, but negligible for a service company. The *trade receivables period* is the average time taken by credit customers to settle their accounts. The *trade payables deferral period* is the average time taken by a company to pay its trade payables, i.e. its suppliers. If we approximate these three periods with the financial ratios of inventory days, trade receivables days and trade payables days (*see* Section 2.4.4), the length of the cash conversion cycle (CCC) is given by:

$$\text{CCC} = \text{Inventory days} + \text{Trade receivables days} - \text{Trade payables days}$$

Example Calculating working capital required

The amount of working capital required by a company can be estimated from information on the value of relevant working capital inputs and outputs, such as raw material costs and credit purchases, together with information on the length of the components of the cash conversion cycle. Assume that Carmed plc expects credit sales of £18m in the next year and has budgeted production costs as follows:

	£m
Raw materials	4
Direct labour	5
Production overheads	<u>3</u>
Total production costs	<u>12</u>

Raw materials are in inventory for an average of three weeks and finished goods are in inventory for an average of four weeks. All raw materials are added at the start of the production cycle, which takes five weeks and incurs labour costs and production overheads at a constant rate. Suppliers of raw materials allow four weeks' credit, whereas customers are given 12 weeks to pay. If production takes place evenly throughout the year, what is the total working capital requirement?

Suggested answer

Raw materials:	$4\text{m} \times (3/52) =$	£	£
			230 769
Work-in-progress:			
raw materials:	$4\text{m} \times (5/52) =$	384 615	
labour costs:	$5\text{m} \times (5/52) \times 0.5 =$	240 385	
overheads:	$3\text{m} \times (5/52) \times 0.5 =$	<u>144 231</u>	
			769 231
Finished goods:	$12\text{m} \times (4/52) =$		923 077
Trade receivables:	$18\text{m} \times (12/52) =$		4 153 846
Trade payables:	$4\text{m} \times (4/52) =$		<u>(307 692)</u>
Working capital required:			<u>5 769 231</u>

In this calculation it has been assumed that all raw materials are added at the start of the production process, whereas labour costs and overheads are incurred evenly as production proceeds. If, on average, work-in-progress is half-finished, labour and overheads have to be multiplied by 0.5 as only half the amounts of these costs are present in finished goods.

On the information given, Carmed needs £5.77m of working capital. The proportions of long- and short-term finance used will depend on the working capital policies of the company. Note that Carmed's cash conversion cycle is $(3 + 5 + 4) + 12 - 4 = 20$ weeks.

3.3.1 The cash conversion cycle and working capital needs

Forecasts of working capital requirements can be based on forecasts of sales if a relationship between net working capital and sales is assumed to exist. Such a relationship is quantified by the *sales/net working capital ratio* described in Section 2.4.4, and made explicit by a policy on the level of investment in working capital (see Section 3.2.1). However, even with such a policy in place, the relationship between sales and working capital is unlikely to remain static as levels of business and economic activity change. Since budgeted production is based on forecast sales, care must be taken in periods of reduced economic activity to ensure that over-investment in inventories of raw materials, work-in-progress and finished goods

does not occur. Although the overall amount of working capital needed can be estimated from forecast sales and the cash conversion cycle, there is likely to be a difference between forecast activity and actual activity. There can be no substitute, then, for reviewing working capital needs regularly in the light of changing levels of activity.

The cash conversion cycle also shows where managers should focus their attention if they want to decrease the amount of cash tied up in current assets. Apart from reducing sales and reducing the cost per unit sold, cash invested in current assets can be reduced by shortening the cash conversion cycle (Cheatham 1989). This can be done by decreasing the inventory conversion period (inventory days), by reducing the trade receivables collection period (trade receivables days) or by increasing the trade payables deferral period (trade payables days).

The inventory conversion period can be reduced by shortening the length of the production cycle, for example by more effective production planning or by outsourcing part of the production process. The amount of inventory within the production process can be reduced by using just-in-time (JIT) production methods (see Section 3.5.3) or by employing production methods which are responsive to changing sales levels.

The trade receivables conversion period can be shortened by offering incentives for early payment, by reducing the period of credit offered to customers, by chasing slow or late payers, and by more stringent assessment of the creditworthiness of customers to screen out slow payers. The minimum trade receivables conversion period is likely to be the credit offered by competitors.

The trade payables deferral period is less flexible as it is determined to a large extent by a company's suppliers. If a company delays payables payments past their due dates, it runs the risk of paying interest on overdue accounts, losing its suppliers or being refused credit in future.

3.4 Overtrading

Overtrading (also called undercapitalisation) occurs if a company is trying to support too large a volume of trade from too small a working capital base. It is the result of the supply of funds failing to meet the demand for funds within a company and it emphasises the need for adequate working capital investment. Even if a company is operating profitably, overtrading can result in a liquidity crisis, with the company being unable to meet its debts as they fall due because cash has been absorbed by growth in non-current assets, inventory and trade receivables. Serious and sometimes fatal problems can therefore arise for a company as a result of overtrading.

Overtrading can be caused by a rapid increase in turnover, perhaps as a result of a successful marketing campaign where funding was not put in place for the necessary associated investment in non-current assets and current assets. Overtrading can also arise in the early years of a new business if it starts off with insufficient capital. This may be due to a mistaken belief that sufficient capital could be generated from

trading profits and ploughed back into the business, when in fact the early years of trading are often difficult ones. Overtrading may also be due to erosion of a company's capital base, perhaps due to the non-replacement of long-term loans following their repayment.

There are several strategies that are appropriate to deal with overtrading:

- *Introducing new capital:* this is likely to be an injection of equity finance rather than debt since, with liquidity under pressure due to overtrading, managers will be keen to avoid straining cash flow any further by increasing interest payments.
- *Improving working capital management:* overtrading can also be attacked by better control and management of working capital, for example by chasing overdue accounts. Since overtrading is more likely if an aggressive funding policy is being followed, adopting a matching policy or a more relaxed approach to funding could be appropriate.
- *Reducing business activity:* as a last resort, a company can choose to level off or reduce the level of its planned business activity in order to consolidate its trading position and allow time for its capital base to build up through retained earnings.

Indications that a company may be overtrading could include:

- rapid growth in sales over a relatively short period;
- rapid growth in the amount of current assets, and perhaps non-current assets;
- deteriorating inventory days and trade receivables days' ratios;
- increasing use of trade credit to finance current asset growth (increasing trade payables days);
- declining liquidity, indicated perhaps by a falling quick ratio;
- declining profitability, perhaps due to using discounts to increase sales;
- decreasing amounts of cash and liquid investments, or a rapidly increasing overdraft.

3.5 The management of inventory

Significant amounts of working capital can be invested in inventories of raw materials, work-in-progress and finished goods. Inventories of raw materials and work-in-progress can act as a buffer between different stages of the production process, ensuring its smooth operation. Inventories of finished goods allow the sales department to satisfy customer demand without unreasonable delay and potential loss of sales. These *benefits* of holding inventory must be weighed against any *costs* incurred, however, if optimal inventory levels are to be determined. Costs which may be incurred in holding inventory include:

- holding costs, such as insurance, rent and utility charges;
- replacement costs, including the cost of obsolete inventory;

- the cost of the inventory itself;
- the opportunity cost of cash tied up in inventory.

3.5.1 The economic order quantity

This classical inventory management model calculates an optimum order size by balancing the costs of holding inventory against the costs of ordering fresh supplies. This optimum order size is the basis of a minimum cost procurement policy. The economic order quantity model assumes that, for the period under consideration (usually one year), costs and demand are constant and known with certainty. It is also called a *deterministic* model because it makes these steady-state assumptions. It makes no allowance for the existence of buffer inventory.

If we assume a constant demand for inventory, holding costs will increase as average inventory levels and order quantity increase, while ordering costs will decrease as order quantity increases and the number of orders falls. The total cost is the sum of the annual holding cost and the annual ordering cost. The total cost equation is therefore:

$$\text{Total annual cost} = \text{Annual holding cost} + \text{Annual ordering cost}$$

Algebraically:

$$TC = \frac{(Q \times H)}{2} + \frac{(S \times F)}{Q}$$

where: Q = order quantity in units
 H = holding cost per unit per year
 S = annual demand in units per year
 F = ordering cost per order

The annual holding cost is the average inventory level in units ($Q/2$) multiplied by the holding cost per unit per year (H). The annual ordering cost is the number of orders per year (S/Q) multiplied by the ordering cost per order (F). This relationship is shown in Figure 3.3.

The minimum total cost occurs when holding costs and ordering costs are equal (as can be shown by differentiating the total cost equation with respect to Q and setting to zero). Putting holding costs equal to ordering costs and rearranging gives:

$$Q = \frac{\sqrt{2 \times S \times F}}{H}$$

Q is now the economic order quantity, i.e. the order quantity which minimises the sum of holding costs and ordering costs. This formula is called the economic order quantity (EOQ) model.

More sophisticated inventory management models have been developed which relax some of the classical model's assumptions, whereas some modern approaches, such as just-in-time methods (*see* Section 3.5.3) and material resource planning (MRP), question the need to hold any inventory at all.

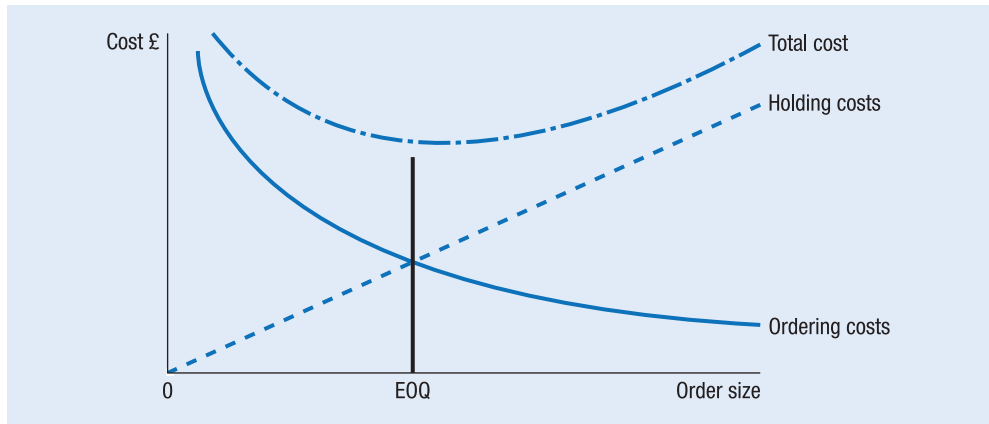


Figure 3.3 The costs of holding stock and the economic order quantity model

Example Using the EOQ model

Oleum plc sells a soap called Fragro, which it buys in boxes of 1000 bars with ordering costs of €5 per order. Retail sales are 200 000 bars per year and holding costs are €2.22 per year per 1000 bars. What is the economic order quantity and average inventory level for Fragro?

Suggested answer

$$\begin{aligned} F &= \text{€}5 \text{ per order} \\ S &= 200\,000 \text{ bars per year} \\ H &= \text{€}2.22 \text{ per } 1000 \text{ bars} \end{aligned}$$

so:

$$\begin{aligned} Q &= (2 \times 200\,000 \times 5 / (2.22/1000))^{1/2} \\ &= 30\,015 \text{ bars, or approximately } 30 \text{ boxes} \end{aligned}$$

The average inventory level = $Q/2 = 30\,000/2 = 15\,000$ bars.

3.5.2 Buffer inventory and lead times

There will usually be a delay between ordering and delivery, and this delay is known as *lead time*. If demand and lead time are assumed to be constant, new inventory should be ordered when the inventory in hand falls to a level equal to the demand during the lead time. For example, if demand is 10 400 units per year and the lead time for delivery of an order is two weeks, the amount used during the lead time is:

$$10\,400 \times (2/52) = 400 \text{ units}$$

New inventory must be ordered when the level of inventory in hand falls to 400 units. If demand or lead times are uncertain or variable, a company may choose

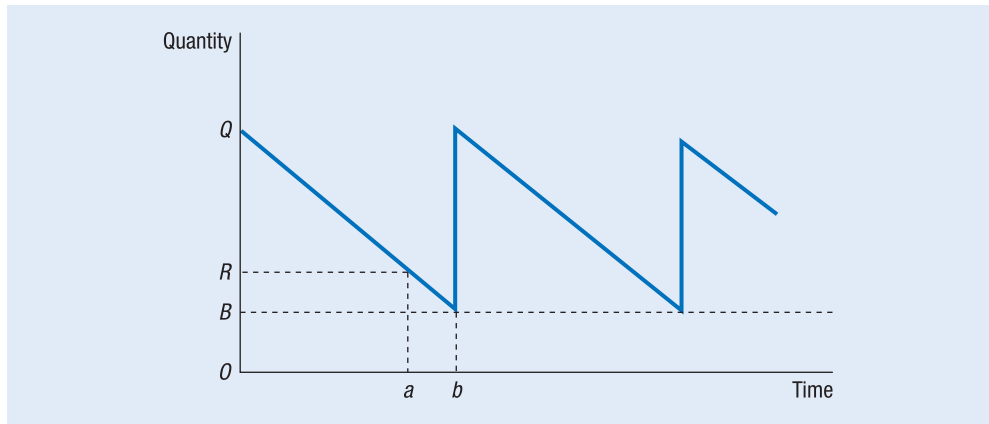


Figure 3.4 Average stock levels, reorder level and buffer stock

to hold buffer inventory to reduce or eliminate the possibility of running out of inventory. It could optimise the level of buffer inventory by balancing holding costs against the potential costs of running out of inventory. However, the EOQ model can still be used to determine an optimum order size.

Figure 3.4 shows the pattern of inventory levels where a company chooses to operate with buffer inventory OB . Regular economic orders of size BQ are placed, based on average annual demand. Because lead time is known and is equal to ab , new orders are placed when inventory levels fall to OR . The company can meet unexpected demand during the lead time from the buffer inventory held. The average inventory level will be:

$$\text{Buffer inventory} + \text{Half of regular order quantity} = OB + (BQ/2)$$

This can be used to calculate the expected holding cost for the year.

3.5.3 Just-in-time inventory policies

Many companies in recent years have reduced inventory costs by minimising inventory levels. The main purpose of a just-in-time (JIT) *purchasing policy* is to minimise or eliminate the time which elapses between the delivery and use of inventory. Such policies have been applied in a wide range of commercial operations and call for a close relationship between the supplier and the purchaser of both raw materials and bought components. The purchaser requires guarantees on both quality and reliability of delivery from the supplier in order to avoid disruptions to production. In return for these commitments, the supplier can benefit from long-term purchase agreements since a company adopting JIT purchasing methods will concentrate on dealing with suppliers who are able to offer goods of the required quality at the required time. The purchaser will benefit from a reduction in the costs of holding, ordering and handling inventory since materials will move directly from reception to the production line.

The main purpose of a JIT *manufacturing policy* is to minimise inventory acting as a buffer between different stages of production. Apart from developing closer relationships with suppliers, this can also be achieved by changing factory layout in order to reduce queues of work-in-progress and by reducing the size of production batches. Good production planning is also essential if a JIT manufacturing policy is to be successful.

3.6 The management of cash

Cash management, which is part of the wider task of treasury management, is concerned with optimising the amount of cash available, maximising the interest earned by spare funds not required immediately and reducing losses caused by delays in the transmission of funds. Holding cash to meet short-term needs incurs an opportunity cost equal to the return which could have been earned if the cash had been invested or put to productive use. However, reducing this opportunity cost by operating with small cash balances will increase the risk of being unable to meet debts as they fall due, so an optimum cash balance should be found.

3.6.1 The need for cash

There are three reasons why companies choose to hold cash.

Transactions motive

Companies need a cash reserve in order to balance short-term cash inflows and outflows since these are not perfectly matched. This is called the transactions motive for holding cash, and the approximate size of the cash reserve can be estimated by forecasting cash inflows and outflows and by preparing cash budgets. In addition to the cash reserve held for day-to-day operational needs, cash may be built up to meet significant anticipated cash outflows, for example those arising from investment in a new project or the redemption of debt.

Precautionary motive

Forecasts of future cash flows are subject to uncertainty and it is possible that a company will experience unexpected demands for cash. This gives rise to the precautionary motive for holding cash. Reserves held for precautionary reasons could be in the form of easily-realised short-term investments, which are discussed below.

Speculative motive

Companies may build up cash reserves in order to take advantage of any attractive investment opportunities that may arise, for example in the takeover market. Such reserves are held for speculative reasons. If a company has significant speculative cash reserves for which it cannot see an advantageous use, it may choose to enhance shareholder value by returning them to shareholders, for example by means of a share repurchase scheme or a special cash dividend (*see* Section 10.7).

3.6.2 Optimum cash levels

Given the variety of needs a company may have for cash and the different reasons it may have for holding cash, the optimum cash level will vary both over time and between companies. The optimum amount of cash held by a company will depend on the following factors:

- forecasts of the future cash inflows and outflows of the company;
- the efficiency with which the cash flows of the company are managed;
- the availability of liquid assets to the company;
- the borrowing capability of the company;
- the company's tolerance of risk, or risk appetite.

3.6.3 Cash flow problems

A company may experience cash flow problems for a number of reasons. It may, for example, be making losses: while this need not be a problem in the short term, making losses on a regular basis will lead to serious cash flow problems, and perhaps even liquidation or acquisition. Inflation may also be a source of cash flow problems since historical profit may prove to be insufficient to fund the replacement of necessary assets. As we saw in our discussion of overtrading, growth requires investment in non-current assets and working capital; if the funds needed for this investment are not forthcoming, cash flows can be severely strained. Careful cash management is needed when dealing with a seasonal business as cyclical sales patterns can lead to cash flow imbalances. Finally, cash flow problems may arise due to sizable one-off items of expenditure, such as redemption of debt or investment in non-current assets. Companies could plan for the redemption of debt capital by setting up a *sinking fund* in which regular contributions of cash and accumulated interest combine to produce the required lump sum, although refinancing with new debt is more common. Refinancing when credit is not easily obtained is the subject of Vignette 3.1.

When faced with cash flow shortages, a company may choose one or more of a number of possible remedies. It may, for example, postpone non-essential capital expenditure. It may be able to accelerate the rate at which cash flows into the business, for example by offering discounts for early payment to customers, by chasing overdue accounts or by having a sale to clear unwanted inventory. If a company has investments, bought perhaps with surplus cash from an earlier period, it may choose to sell them in order to generate cash. Finally, a company may be able to identify ways to reduce or postpone cash outflows, for example by taking longer to pay suppliers or by rescheduling loan repayments. As a last resort, it may decide to reduce or pass a dividend payment, although this is usually seen as a sign of financial weakness by the capital markets (*see* Section 10.4.1).

3.6.4 Cash budgets

Cash budgets are central to the management of cash. They show expected cash inflows and outflows over a budget period and highlight anticipated cash surpluses and

Vignette 3.1

Reed Elsevier refinancing seen as ‘good housekeeping’



Reed Elsevier has concluded a deal with its lenders to extend a \$2bn (£1.4bn) credit facility for two years. The multi-currency deal was agreed by a syndicate of 19 lending banks including Barclays, Royal Bank of Scotland, UBS, Bank of America, BNP Paribas, Citigroup and HSBC.

The scientific and business information publisher, which will announce full-year results tomorrow, will see its existing \$3bn facility, which ends in May 2010, replaced by a two-year, \$2bn facility on maturity. The current \$3bn facility will be cut to \$2.5bn.

The so-called forward start facility is an increasingly popular way for healthy companies not in breach of existing credit agreements to extend the lifespan of their borrowing plans. Other companies that have opted for this type of refinancing include William Hill, the bookmaker, and Meggitt, an aerospace and defence engineering group. Typically, a company will agree to a reduction in the size of its facility and an increase in the interest rate paid on its borrowings.

Simon Laphorne, an analyst at Blue Oar Securities, said: ‘I am not sure that

come this time next year Reed would have had trouble in refinancing but it is good housekeeping to keep one step ahead.’

The company will pay up to 225 basis points more than the London interbank rate. Consensus forecasts are for Reed to have turnover of £5.1bn and make pre-tax profits of £894m in the full year. Net debt is expected to be about £5.1bn, putting the company on a net debt to earnings before interest, tax, depreciation and amortisation multiple of 3.5 times.

Source: Salamander Davoudi and David Fickling, *Financial Times*, 18 February 2009. Reprinted with permission.

deficits. Their preparation assists managers in the planning of borrowing and investment, and facilitates the control of expenditure. Computer spreadsheets allow managers to undertake ‘what if’ analysis to anticipate possible cash flow difficulties as well as to examine possible future scenarios. To be useful, cash budgets should be regularly updated by comparing estimated figures with actual results, using a *rolling cash budget* system. Significant variances from planned figures must always be investigated.

3.6.5 Managing cash flows

Cash flows must be managed efficiently. This means that debts should be collected in line with agreed credit terms and cash should be quickly banked. Prompt banking will either reduce the interest charged on an outstanding overdraft or increase the interest earned on cash deposits. Credit offered by suppliers should be used to the full and payments made as late as possible, provided the benefit of these actions is greater than the benefit of taking any early payment discounts available.

The *float* is the period of time between initiating payment and receiving cash in a company’s bank account. The float can be several days and consists of:

- transmission delay: the time taken for a payment to pass from payer to payee;
- lodgement delay: the delay in banking any payments received;
- clearance delay: the time taken by a bank to clear a presented instruction to pay.

The float can be reduced by minimising lodgement delay (e.g. by using electronic payment methods) and by simplifying and speeding up cash handling. Good cash management will aim to keep the float to a minimum.

Vignette 3.2

UK launches £37bn bank rescue

FT

The government has begun to nationalise the UK banking system by injecting £37bn into three of the country's biggest banks. The historic step could end up with the UK government owning a majority stake in Royal Bank of Scotland, one of the world's biggest banks, and more than 40 per cent of the combined Lloyds TSB and HBOS, which is set to be the country's largest mortgage lender.

RBS, Lloyds TSB and HBOS have agreed to scrap their dividend payments as part of the government plan which will result in the UK banks being some of the best capitalised in Europe.

Under the terms of the bailout, Royal Bank of Scotland, Lloyds TSB and HBOS will be prevented from paying dividends on ordinary shares until they have repaid in full a total of £9bn in preference shares they are issuing to the government. Barclays, which is hoping to avoid

government support by raising around £6.6bn from private investors, has scrapped its final dividend for 2008 in a move designed to save £2bn.

News of the tough new dividend policy – imposed by the Treasury during negotiations over the weekend – makes it less likely that existing shareholders in RBS, Lloyds TSB and HBOS will take the opportunity to buy back some of the ordinary shares that the three banks are placing with the government. If existing shareholders do not buy back any shares, the government is likely to end up with a controlling stake of around 60 per cent in RBS and 43.5 per cent of the combined Lloyds TSB and HBOS, which are pressing ahead with their merger after revising the terms of the deal.

Gordon Brown defended his government's 'unprecedented but essential' decision on Monday morning, saying the effective partial nationalisation was

intended to be temporary only. The British prime minister stated that he expected other countries to follow suit. 'I think we'll find in Europe over the next few days... the same things are going to happen,' he said as eurozone countries began to announce their own rescue packages.

Mr Brown said the state had a duty to 'be the rock of stability' and act to prevent systemic failure of the banking system. 'In extraordinary times, our financial markets ceasing to work, the government cannot just leave people on their own to be buffeted about,' he told a press conference in Downing Street. Earlier Alistair Darling, the chancellor, told the BBC Today programme, 'the reason we are doing it is because this is the only way, when markets are not open to certain banks, they can get the capitalisation they need, this is the government's only intervention here.'

Source: Peter Thal Larsen, FT.com, 13 October 2008.

3.6.6 Investing surplus cash

As discussed above, companies have several reasons for holding funds in liquid or near-liquid form. Cash which is surplus to immediate needs should earn a return by being invested on a short-term basis. There must be no risk of capital loss, since these funds are required to support a company's continuing working capital needs. To reduce the risk of loss, it is important for large companies to set limits on the amounts they deposit with individual banks as banks can, and do, fail. At the start of the 'credit crunch' in 2008, as illustrated by Vignette 3.2, several large UK banks at risk of failure were rescued by the intervention of the UK government.

The factors which should be considered when choosing an appropriate investment method for short-term cash surpluses are:

- the size of the surplus, as some investment methods have minimum amounts;
- the ease with which an investment can be realised;
- when the investment is expected to mature;
- the risk and yield of the investment;
- any penalties which may be incurred for early liquidation.

Short-term methods that can be useful in managing corporate liquidity include money market deposits, sterling certificates of deposit, Treasury bills, sterling commercial paper and gilt-edged government securities.

Term deposits

Cash can be put on deposit with a bank to earn interest, with the interest rate depending on the size of the deposit, its maturity and the notice required for withdrawals. To maximise return, companies should obtain quotations from several banks before making a deposit since interest rates vary between banks as they compete for funds. Money market deposits are useful where cash flow needs are predictable with a high degree of certainty.

In the UK, large companies can lend directly to banks on the interbank market at rates close to the London Interbank Offered Rate (LIBOR). Smaller companies lend indirectly onto the market through term deposits with their banks.

Sterling certificates of deposit

Sterling certificates of deposit are negotiable bearer securities issued by banks and building societies. They are for amounts ranging from £100 000 to £1m and have maturities ranging from 28 days to five years. At maturity, the holder of a sterling certificate of deposit is entitled to receive both principal and interest.

Because certificates of deposit can be sold before maturity, and so are more liquid than money market deposits, they carry a lower rate of interest. They may be useful if a company's cash flows are not predictable enough for a money market deposit to be made. The anonymity of bearer securities makes them attractive to some investors.

Treasury bills

Treasury bills of two-, three- and six-month maturities are issued on a discounted basis by the UK government. They are bought and sold on the discount market (part of the money market). The yield on Treasury bills is lower than on other money market instruments because of the lower default risk associated with government borrowing. In fact, the Treasury bill yield is often used as an approximation of the *risk-free rate of return* (see Section 8.6.2).

Sterling commercial paper

Sterling commercial paper refers to short-term promissory notes with a fixed maturity of between seven days and three months. They are unsecured bearer securities issued at a discount by companies, banks and building societies. The minimum amount of sterling commercial paper that can be issued is £100 000 and issuing companies must be listed on the London Stock Exchange. Sterling commercial paper offers a higher return than government securities such as Treasury bills, however, since it has a higher default risk.

Gilt-edged government securities

Gilt-edged government securities (gilts) are the long-term equivalent of Treasury bills, with maturities usually greater than five years. Short-term cash surpluses should not be invested in newly issued gilts since their long maturities make their market prices sensitive to interest rate changes and the risk of capital loss in the short term could be high. Gilts close to maturity can be bought as short-term investments, however, and may be regarded as liquid assets similar to Treasury bills.

3.7 The management of receivables

A company's credit management policy should help it maximise expected profits. It will need to take into account its current and desired cash position, as well as its ability to satisfy expected demand. To put the credit management policy into effect successfully, managers and staff may need training or new staff may need to be recruited.

Key variables affecting the level of receivables will be the *terms of sale* prevailing in a company's area of business and the ability of the company to match and service comparable terms of sale. There is also a relationship between the level of receivables and a company's *pricing policy*: for example, it may choose to keep selling prices relatively high while offering attractive terms for early payment. The effectiveness of *trade receivables follow-up procedures* used will also influence the overall level of receivables and the likelihood of bad debts arising.

The trade receivables management policy formulated by senior managers should also take into account the *administrative costs* of debt collection, the ways in which the policy could be implemented effectively, and the costs and effects of easing credit. It should balance the benefits to be gained from offering credit to customers against the costs of doing so. Longer credit terms may increase turnover, but will also increase the risk of bad debts. The cost of increased bad debts and the cost of any additional working capital required should be less than the increased profits generated by the higher turnover. In order to operate its trade receivables policy, a company needs to set up a credit analysis system, a credit control system and a trade receivables collection system.

3.7.1 Credit analysis system

To make a sensible decision about whether to trade with a company or not, information about the business is needed. The risk of bad debts can be minimised if the creditworthiness of new customers is carefully assessed before credit is granted and if the creditworthiness of existing customers is reviewed on a regular basis. Relevant information can be obtained from a variety of sources. New customers can be asked to provide *bank references* to confirm their financial standing, and *trade references* to indicate satisfactory conduct of business affairs. Published information, such as the audited annual report and accounts of a prospective customer, may also provide a useful indication of creditworthiness. A company's own experience of similar companies will also be useful in forming a view on creditworthiness, as will the experience of other companies within a group.

For a fee, a report may be obtained from a *credit reference agency*, such as Experian, Equifax or Callcredit. A credit report may include a company profile, recent accounts, financial ratios and industry comparisons, analysis of trading history, payment trends, types of borrowing, previous financial problems and a credit limit.

Bearing in mind the cost of assessing creditworthiness, the magnitude of likely regular sales could be used as a guide to determine the depth of the credit analysis.

3.7.2 Credit control system

Once creditworthiness has been assessed and a *credit limit* agreed, the company should take steps to ensure the customer keeps to the credit limit and the terms of trade. Customer accounts should be kept within the agreed credit limit and credit granted should be reviewed periodically to ensure that it remains appropriate. In order to encourage prompt payment, invoices and statements should be carefully checked for accuracy and despatched promptly. Under no circumstances should customers who have exceeded their credit limits be able to obtain goods.

3.7.3 Trade receivables collection system

Since the purpose of offering credit is to maximise profitability, the costs of debt collection should not be allowed to exceed the amounts recovered. A company should prepare regularly an *aged trade receivables analysis* and take steps to chase late payers. It is helpful to establish clear procedures for chasing late payers, to set out the circumstances under which credit control staff should send out reminders and initiate legal proceedings. Some thought could also be given to charging interest on overdue accounts to encourage timely payment, depending on the likely response of customers.

3.7.4 Insuring against bad debts

Insurance against the risk of bad debts is available and can be arranged through brokers or intermediaries. *Whole turnover insurance* will cover any debt below an agreed amount against the risk of non-payment. *Specific account insurance* will allow a company to insure key accounts against default and may be used for major customers.

3.7.5 Discounts for early payment

Cash discounts may encourage early payment, but the cost of such discounts must be less than the total financing savings resulting from lower trade receivables balances, any administrative or financing savings arising from shorter trade receivables collection periods, and any benefits from lower bad debts.

Example

Evaluating a change in trade receivables policy

Mine plc has annual credit sales of £15m and allows 90 days' credit. It is considering introducing a 2 per cent discount for payment within 15 days, and reducing the credit period to 60 days. It estimates that 60 per cent of its customers will take advantage of the discount, while the volume of sales will not be affected. The company finances working capital from an overdraft at a cost of 10 per cent. Is the proposed change in policy worth implementing?



Suggested answer

	£000	£000
Current level of receivables: $15\,000 \times (90/365) =$		3699
Proposed level of receivables:		
$15\,000 \times (60/365) \times 40\% =$	986	
$15\,000 \times (15/365) \times 60\% =$	<u>370</u>	
Reduction in receivables		<u>1356</u> <u>2343</u>
		£
Saving in finance costs: $2343 \times 0.10 =$		234 300
Cost of discount: $15\,000 \times 2\% \times 60\% =$		<u>180 000</u>
Net benefit of proposed policy change		<u>54 300</u>

The policy change is financially attractive. However, the difficulty of forecasting accurately the effects of a change in trade receivables policy should be borne in mind when deciding whether or not to introduce it.

3.7.6 Factoring

Factoring companies offer a range of services in the area of sales administration and the collection of amounts due from trade receivables. A factor can take over the administration of sales invoicing and accounting for a client company, together with collecting amounts due from trade receivables and chasing up any slow payers. A factor can offer a cash advance against the security of trade receivables, allowing a company ready access to cash as soon as credit sales are made. For an additional fee, a factor can take on any bad debts that may arise through non-payment. This is called *non-recourse* factoring, since here the factor does not have recourse to the company for compensation in the event of non-payment.

While a factor will advance up to 95 per cent of the face value of invoices, interest will be charged on the sum advanced. In exchange for accelerated cash receipts, therefore, a company incurs an interest charge, which can be compared with the cost of short-term borrowing. This charge is in addition to the service fee levied by the factor, which is usually between 0.5 per cent and 3 per cent of gross annual turnover. There will be a reduction in administration costs, however, and the company will have access to the factor's expertise in credit analysis and credit control.

The advantages that factoring offers to a company may include the following:

- prompt payment of suppliers, leading perhaps to obtaining early payment discounts;
- a reduction in the amount of working capital tied up in trade receivables;
- financing growth through sales;
- savings on sales administration costs;
- benefits arising from the factor's experience in credit analysis and credit control.

3.7.7 Invoice discounting

Invoice discounting involves the sale of selected invoices to a third party while retaining full control over the sales ledger; it is a service often provided by factoring companies. The main cost of invoice discounting is a discount charge linked to bank base rates, although a fee of between 0.2 per cent and 0.5 per cent of turnover is often levied. Invoice discounting is useful to a company because it results in an improvement in cash flow.

Evaluating the costs and benefits of factoring and invoice discounting is similar to evaluating discounts for early payment, as discussed earlier.

Example Cost–benefit analysis of factoring

Trebod has annual credit sales of €4.5m. Credit terms are 30 days, but its management of trade receivables has been poor and the average collection period is 50 days, with 0.4 per cent of sales resulting in bad debts. A factor has offered to take over the task of debt administration and credit checking, at an annual fee of 1 per cent of credit sales. Trebod plc estimates that it would save €35 000 per year in administration costs as a result. Due to the efficiency of the factor, the average collection period would fall to 30 days and bad debts would be eliminated. The factor would advance 80 per cent of invoiced debts at an annual interest rate of 11 per cent. Trebod plc currently finances trade receivables from an overdraft costing 10 per cent per year.

If credit sales occur smoothly throughout the year, determine whether the factor's services should be accepted.

Suggested answer

	£
Current level of trade receivables is €4.5m × (50/365) =	616 438
Under the factor, trade receivables would fall to €4.5m × (30/365) =	369 863

The costs of the current policy are as follows:

	£
Cost of financing current receivables: 616 438 × 10% =	61 644
Cost of bad debts: 4.5m × 0.4% =	18 000
Costs of current policy:	<u>79 644</u>

The costs under the factor are as follows:

	£
Cost of financing new receivables through factor: (€369 863 × 0.8 × 0.11) + (€369 863 × 0.2 × 0.10) =	39 945
Factor's annual fee: €4.5m × 0.01 =	45 000
Saved administration costs:	(35 000)
Net cost under factor:	<u>49 945</u>

Cost–benefit analysis shows the factor's services are cheaper than current practice by €29 699 per year. On financial grounds, the services of the factor should be accepted.

3.8 Conclusion

Effective working capital management lies at the heart of a successful company, playing a crucial role in the increase of shareholder wealth and the achievement of benefits from capital investment. In fact, poor management of working capital is one of the more common reasons for corporate failure. It is essential that company managers have an understanding of this key area of corporate finance.

Key points

- 1 The main objectives of working capital management are profitability and liquidity.
- 2 Short-term sources of finance include overdrafts, short-term bank loans and trade credit.
- 3 Companies may adopt aggressive, moderate or conservative working capital policies regarding the level and financing of working capital.
- 4 The cash conversion cycle can be used to determine the working capital requirement of a company as well as to help managers look for ways of decreasing the cash invested in current assets.
- 5 Overtrading can lead to business failure and must be corrected if found. Corrective measures include introducing new capital, improving working capital management and reducing business activity.
- 6 Because there can be significant amounts of cash tied up in inventories of raw materials, work-in-progress and finished goods, steps must be taken to question both the amount of inventory held and the time it is held for.
- 7 The economic order quantity model can be used to determine an optimum order size and directs attention to the costs of holding and ordering inventory. However, there is a growing trend for companies to minimise the use of inventory.
- 8 Cash may be held for transactions, precautionary and speculative reasons, but companies should optimise holdings of cash according to their individual needs.
- 9 Cash flow problems can be anticipated by forecasting cash needs, for example by using cash flow forecasts and cash budgets.
- 10 Surplus cash should be invested to earn a return in appropriate short-term instruments.
- 11 The effective management of trade receivables requires assessment of the credit-worthiness of customers, effective control of credit granted and efficient collection of money due. Effective management of receivables can be assisted by factoring and invoice discounting.

Self-test questions

Answers to these questions can be found on pages 423–5.

- 1 Explain the different strategies a company may follow in order to finance its cumulative working capital requirements.
- 2 Describe the cash conversion cycle and explain its significance in determining the working capital needed by a company.
- 3 Describe the main source of short-term finance for a company.
- 4 Describe the strategies that could be followed by a company seeking to deal with the problem of overtrading.
- 5 Discuss the possible reasons why a company might experience cash flow problems and suggest ways in which such problems might be alleviated.
- 6 Explain why a company may choose to have reserves of cash.
- 7 Discuss ways in which a company might invest its short-term cash surpluses, explaining briefly the factors which it should consider in making its selection.
- 8 How might the creditworthiness of a new customer be checked?
- 9 Is it worth offering discounts to trade receivables to encourage prompt payment?
- 10 Explain the difference between factoring and invoice discounting.

Questions for review



*Questions with an icon are also available for practice in **MyFinanceLab**. Questions with an asterisk (*) are at an intermediate level. Answers to these questions can be found in the student centre in **MyFinanceLab**.*

- ?** 1* Sec uses 60 000 tons of salt over a 50-week working year. It costs £100 to order salt and delivery follows two weeks later. Storage costs for the salt are expected to be £0.10 per ton per year. The current practice is to order twice a year when the inventory falls to 10 000 tons (all orders are equal in size). Recommend an ordering policy for Sec using the Economic Order Quantity model and contrast its cost with the cost of the current policy.

- ?** 2 MW has sales of €700 000 per year. Its costs as a percentage of sales are as follows:

	%
Raw materials	20
Direct labour	35
Overheads	15

Raw materials are carried in inventory for two weeks and finished goods are held in inventory for three weeks. Production takes four weeks. MW takes four weeks' credit from suppliers and gives eight weeks' credit to its customers. If both overheads and production are incurred evenly throughout the year, what is MW's total working capital requirement?

- 3*** MC has current sales of £1.5m per year. Cost of sales is 75 per cent of sales and bad debts are 1 per cent of sales. Cost of sales comprises 80 per cent variable costs and 20 per cent fixed costs. The company finances working capital from an overdraft at a rate of 7 per cent per year. MC currently allows customers 30 days' credit, but is considering increasing this to 60 days' credit in order to increase sales.

It has been estimated that this change in policy will increase sales by 15 per cent, while bad debts will increase from 1 per cent to 4 per cent. It is not expected that the policy change will result in an increase in fixed costs and payables and inventory will be unchanged. Should MC introduce the proposed policy?

- 4*** A company is planning to offer a discount for payment within 10 days to its customers, who currently pay after 45 days. Only 40 per cent of credit customers would take the discount, although administrative cost savings of €4450 per year would be gained. If credit sales, which are unaffected by the discount, are €1 600 000 per year and the cost of short-term finance is 8 per cent, what is the maximum discount that could be offered?

Questions for discussion

Questions with an asterisk () are at an advanced level.*

- 1*** The finance director of Stenigot is concerned about the lax management of the company's trade receivables. The trade terms of Stenigot require settlement within 30 days, but its customers take an average of 60 days to pay their bills. In addition, out of total credit sales of £20m per year, the company suffers bad debts of £200 000 per year. Stenigot finances working capital needs with an overdraft at a rate of 8 per cent per year. The finance director is reviewing two options:

- *Option 1:* Offering a discount of 1 per cent for payment within 30 days. It is expected that 35 per cent of customers will take the discount, while the average time taken to pay by the remaining customers will remain unchanged. As a result of the policy change, bad debts would fall by £60 000 per year and administration costs by £20 000 per year.
- *Option 2:* The debt administration and credit control of Stenigot could be taken over by a factoring company. The annual fee charged by the factor would be 1.75 per cent of sales. Stenigot would gain administration cost savings of

£160 000 per year and an 80 per cent reduction in bad debts. The factor would reduce the average trade receivables days of Stenigot to 30 days and would advance 80 per cent of invoices at an interest rate of 12 per cent.

- (a) Calculate the benefit, if any, to Stenigot of the two suggested options and, in the light of your findings, recommend an appropriate course of action to the finance director.
- (b) Critically discuss whether it is possible for a company to optimise its working capital position. Your answer should include a discussion of the following matters:
 - (i) the risk of insolvency;
 - (ii) the return on assets;
 - (iii) the level, mix and financing of current assets.

2* Saltfleet is a wholesale merchant supplying the construction industry which operates through a number of stores and depots throughout the UK. It has one subsidiary, Irby, which manufactures scaffolding and security fences. The finance director of Saltfleet has been reviewing its working capital management and is considering a number of proposals which he hopes will lead to greater efficiency and effectiveness in this important area.

- appointing a credit controller to oversee the credit management of the stores and depots;
 - appointing a factoring company to take over the sales administration and trade receivables management of Irby;
 - investing short-term cash surpluses on the London Stock Exchange. The finance director is especially interested in investing in the shares of a small company recently tipped by an investment magazine.
- (a) Critically discuss the importance of credit management to a company like Saltfleet, explaining the areas to be addressed by a credit management policy.
 - (b) Distinguish between factoring and invoice discounting, and explain the benefits which Irby may receive from a factoring company.
 - (c) Discuss whether Saltfleet should invest short-term cash surpluses on the London Stock Exchange.

3* The following information has been extracted from the financial statements of Rowett:

Income statement extracts

	€000	€000
Turnover		12 000
Cost of sales:		
Raw materials	5800	
Labour	<u>3060</u>	
		<u>8860</u>
Gross profit		3140
Administration/distribution		<u>1680</u>
Operating profit		<u>1460</u>

Financial position statement extracts

	€000	€000
Current assets:		
Inventories of raw materials	1634	
Inventories of finished goods	2018	
Trade receivables	1538	
Cash and bank	<u>500</u>	
		5690
Current liabilities:		
Trade payables	1092	
Overdraft	300	
Other expenses	<u>76</u>	
		<u>1468</u>
		<u>4222</u>

Powell, a factoring company, has offered to take over the debt administration and credit control of Rowett on a non-recourse basis for an annual fee of 2 per cent of sales. This would save Rowett €160 000 per year in administration costs and reduce bad debts from 0.5 per cent of sales to nil. Powell would reduce trade receivables days to 40 days, and would advance 75 per cent of invoiced debts at an interest rate of 10 per cent.

Rowett finances working capital from an overdraft at 8 per cent.

- (a) Calculate the length of the cash conversion cycle of Rowett and discuss its significance to the company.
 - (b) Discuss ways in which Rowett could improve the management of its receivables.
 - (c) Using the information given, assess whether Rowett should accept the factoring service offered by Powell. What use should the company make of any finance provided by the factor?
- 4** The finance director of Menendez is trying to improve the company's slack working capital management. Although the trade terms of Menendez require settlement within 30 days, its customers take an average of 45 days to pay their bills. In addition, out of total credit sales of £15m per year, the company suffers bad debts of £235 000 per year. It has been suggested that the average settlement period could be reduced if an early settlement discount were offered and the finance director is considering a reduction of 1.5 per cent of the face value of the invoice for payment within 30 days. It is expected that 40 per cent of customers would use the discount, but that the average time taken by the remaining customers would not be affected. It is also expected that, if the new credit terms are introduced, bad debts will fall by £60 000 per year and administration costs will fall by £15 000 per year.
- (a) If total sales are unchanged and if working capital is financed by an overdraft at 9 per cent per year, are the new credit terms of any benefit to Menendez?
 - (b) Discuss whether Menendez should finance its working capital needs from an overdraft.
 - (c) It has been suggested by the managing director of Menendez that the way to optimise the company's overall level of working capital is by minimising its cash conversion cycle. Critically discuss whether the finance director should follow this suggestion.
 - (d) Briefly discuss ways in which Menendez could use its trade receivables as a source of finance.

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- Cheatham, C. (1989) 'Economizing on cash investment in current assets', *Managerial Finance*, Vol. 15, No. 6, pp. 20–25.
- Pass, C. and Pike, R. (1984) 'An overview of working capital management and corporate financing', *Managerial Finance*, Vol. 10, No. 3/4, pp. 1–11.

Recommended reading

An interesting discussion of cash management can be found in:

Van Horne, J.C. and Wachowicz, Jr., J.M. (2009) *Fundamentals of Financial Management*, 13th edn, Harlow: FT Prentice Hall.

An interesting discussion of inventory management methods can be found in:

Keown, A.J., Martin, J.D., Petty, J.W. and Scott, D.F. (2004) *Financial Management: Principles and Applications*, 10th edn, Harlow: Prentice Hall.

An excellent discussion of working capital management from an American perspective can be found in:

Gitman, L.J. (2008) *Principles of Managerial Finance*, 12th edn, Boston: Pearson Education.



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Now retake your diagnostic test for Chapter 3 to check your progress and update your personal study plan.