

JIT will not be appropriate in some cases. For example, a restaurant might find it preferable to use the traditional economic order quantity approach for staple non-perishable food inventories but adopt JIT for perishable and 'exotic' items. In a hospital, a stock-out could quite literally be fatal and so JIT would be quite unsuitable.

Exam focus point

You may be required to evaluate the benefits of introducing a JIT arrangement, given certain assumptions about the costs and benefits.



Case Study

Japanese car manufacturer Toyota was the first company to develop JIT (JIT was originally called the Toyota Production System). After the end of the world war in 1945, Toyota recognised that it had much to do to catch up with the US automobile manufacturing industry. The company was making losses. In Japan, however, consumer demand for cars was weak, and consumers were very resistant to price increases. Japan also had a bad record for industrial disputes. Toyota itself suffered from major strike action in 1950.

The individual credited with devising JIT in Toyota from the 1940s was Taiichi Ohno, and JIT techniques were developed gradually over time.

Ohno identified seven wastes and worked to eliminate them from operations in Toyota. Measures that were taken by the company included the following.

- (a) The aim of reducing costs was of paramount importance in the late 1940s. Toyota was losing money, and market demand was weak, preventing price rises. The only way to move from losses into profits was to cut costs, and cost reduction was probably essential for the survival of the company.
- (b) The company aimed to level the flow of production and eliminate unevenness in the work flow. Production levelling should help to minimise idle time whilst at the same time allowing the company to achieve its objective of minimum inventories.
- (c) The factory layout was changed. Previously all machines, such as presses, were located in the same area of the factory. Under the new system, different types of machines were clustered together in production cells.
- (d) Machine operators were re-trained.
- (e) Employee involvement in the changes was seen as being particularly important. Team work was promoted.
- (f) The **kanban system** was eventually introduced, but a major problem with its introduction was the elimination of defects in production. The kanban system is a 'pull' system of production scheduling. Items are only produced when they are needed. If a part is faulty when it is produced, the production line will be held up until the fault is corrected.

2 Managing accounts receivable

Pilot Paper, 12/07

2.1 Total credit

FAST FORWARD

Offering credit has a cost: the value of the interest charged on an overdraft to fund the period of credit, or the interest lost on the cash not received and deposited in the bank. An increase in profit from extra sales resulting from offering credit could offset this cost.

Finding a **total level of credit** which can be offered is a matter of finding the least costly balance between enticing customers, whose use of credit entails considerable costs, and refusing opportunities for profitable sales.

2.2 Effect on profit of extending credit

The main cost of offering credit is the interest expense. How can we assess the effect on profit?

Let us assume that the Zygo Company sells widgets for \$1,000, which enables it to earn a profit, after all other expenses except interest, of \$100 (ie a 10% margin).

- (a) Aibee buys a widget for \$1,000 on 1 January 20X1, but does not pay until 31 December 20X1. Zygo relies on overdraft finance, which costs it 10% pa. The effect is:

	\$
Net profit on sale of widget	100
Overdraft cost $\$1,000 \times 10\%$ pa	(100)
Actual profit after 12 months credit	<u>Nil</u>

In other words, the entire profit margin has been wiped out in 12 months.

- (b) If Aibee had paid after six months, the effect would be:

	\$
Net profit	100
Overdraft cost $\$1,000 \times 10\%$ pa $\times \frac{6}{12}$ months	(50)
	<u>50</u>

Half the profit has been wiped out. (*Tutorial note.* The interest cost might be worked out in a more complex way to give a more accurate figure.)

- (c) If the cost of borrowing had been 18%, then the profit would have been absorbed before seven months had elapsed. If the net profit were 5% and borrowing costs were 15%, the interest expense would exceed the net profit after four months.



Question

Cost of receivables

Winterson Tools has an average level of accounts receivable of \$2m at any time representing 60 days outstanding. (Their terms are thirty days.) The firm borrows money at 10% a year. The managing director is proud of the credit control: 'I only had to write off \$10,000 in bad debts last year,' she says proudly. Is she right to be proud?

Answer

The Managing Director may be proud of the low level of bad debts but customers are taking an extra month to pay and this has a cost. At any one time, there is \$1m more money outstanding than there should be ($\frac{30}{60}$ days \times \$2m) and this costs \$100,000 in interest charges ($10\% \times \$1m$).

The level of total credit can then have a significant effect on **profitability**. That said, if credit considerations are included in pricing calculations, extending credit can, in fact, increase profitability. If offering credit generates extra sales, then those extra sales will have additional repercussions on:

- The amount of inventory maintained in the warehouse, to ensure that the extra demand must be satisfied.
- The amount of money the company owes to its accounts payable (as it will be increasing its supply of raw materials).

2.3 Credit control policy

Several factors should be considered by management when a policy for **credit control** is formulated. These include:

- The administrative costs of **debt collection**.
- The procedures for **controlling credit** to individual customers and for debt collection.

- (c) The amount of **extra capital required** to finance an extension of total credit – there might be an increase in accounts receivable, inventories and accounts payable, and the net increase in working capital must be financed.
- (d) The cost of the **additional finance** required for any increase in the volume of accounts receivable (or the savings from a reduction in accounts receivable) – this cost might be bank overdraft interest, or the cost of long-term funds (such as loan inventory or equity).
- (e) Any **savings or additional expenses** in operating the credit policy (for example the extra work involved in pursuing slow payers).
- (f) The **ways** in which the credit policy could be **implemented** – for example:
 - (i) Credit could be eased by giving accounts receivable a longer period in which to settle their accounts – the cost would be the resulting increase in accounts receivable.
 - (ii) A discount could be offered for early payment – the cost would be the amount of the discounts taken.
- (g) The **effects of easing credit**, which might be to encourage a higher proportion of bad debts, and an increase in sales volume. Provided that the extra gross contribution from the increase in sales exceeds the increase in fixed cost expenses, bad debts, discounts and the finance cost of an increase in working capital, a policy to relax credit terms would be profitable.

2.4 Assessing creditworthiness

FAST FORWARD

In managing **accounts receivable**, the **creditworthiness** of customers needs to be assessed. The risks and costs of a customer defaulting will need to be balanced against the profitability of the business provided by that customer.

Credit control involves the initial investigation of potential credit customers and the continuing control of outstanding accounts. The main points to note are as follows.

- (a) New customers should give two **good references**, including one from a bank, before being granted credit.
- (b) **Credit ratings** might be **checked** through a credit rating agency.
- (c) A **new customer's credit limit** should be **fixed** at a **low level** and only increased if his payment record subsequently warrants it.
- (d) For large value customers, a **file** should be **maintained** of any available financial information about the customer. This file should be reviewed regularly. Information is available from:
 - (i) An analysis of the company's annual report and accounts
 - (ii) Extel cards (sheets of accounting information about public companies in the UK, and also major overseas companies, produced by Extel)
- (e) The **Department of Trade and Industry** and the Export Credit Guarantee Department will both be able to advise on overseas companies.
- (f) **Press comments** may give information about what a company is currently doing (as opposed to the historical results in Extel cards or published accounts which only show what the company has done in the past).
- (g) The company could send a member of staff to **visit** the company concerned, to get a first-hand impression of the company and its prospects. This would be advisable in the case of a prospective major customer.

An organisation might devise a **credit-rating system** for new individual customers that is based on characteristics of the customer (such as whether the customer is a home owner, and the customer's age and occupation). Points would be awarded according to the characteristics of the customer, and the amount of credit that is offered would depend on his or her credit score.

2.5 Managing accounts receivable

FAST FORWARD

Regular monitoring of accounts receivable is very important. Individual accounts receivable can be assessed using a **customer history analysis** and a **credit rating system**. The overall level of accounts receivable can be monitored using an **aged accounts receivable listing** and **credit utilisation report**, as well as reports on the level of bad debts.

- Accounts receivable' payment records** must be **monitored** continually. This depends on successful sales ledger administration.
- Credit monitoring can be simplified by a system of **in-house credit ratings**. For example, a company could have five credit-risk categories for its customers. These credit categories or ratings could be used to decide either individual credit limits for customers within that category or the frequency of the credit review.
- A **customer's payment record** and the **accounts receivable aged analysis** should be examined regularly, as a matter of course. Breaches of the credit limit, or attempted breaches of it, should be brought immediately to the attention of the credit controller.

2.5.1 Policing total credit

The total amount of credit offered, as well as individual accounts, should be policed to ensure that the senior management policy with regard to the total credit limits is maintained. A **credit utilisation report** can indicate the extent to which total limits are being utilised. An example is given below.

<i>Customer</i>	<i>Limit</i>	<i>Utilisation</i>	
	\$'000	\$'000	%
Alpha	100	90	90
Beta	50	35	70
Gamma	35	21	60
Delta	<u>250</u>	<u>125</u>	50
	<u>435</u>	<u>271</u>	
		62.2%	

This might also contain other information, such as days sales outstanding and so on.

Reviewed in aggregate, this can reveal the following.

- The **number of customers** who might **want more credit**
- The **extent** to which the **company is exposed to accounts receivable**
- The **'tightness'** of the policy (It might be possible to increase profitable sales by offering credit. On the other hand, perhaps the firm offers credit too easily.)

It is possible to design credit utilisation reports to highlight other trends.

- The **degree of exposure to different countries**
- The **degree of exposure to different industries** (Some countries or industries may be worthy of more credit; others may be too risky.)

Credit utilisation can also be analysed by industry within country or by country within industry. It is also useful to relate credit utilisation to total sales.

2.5.2 Extension of credit

To determine whether it would be profitable to extend the level of total credit, it is necessary to assess:

- The **extra sales** that a **more generous credit policy would stimulate**
- The **profitability** of the **extra sales**
- The **extra length** of the **average debt collection period**
- The **required rate of return** on the investment in additional accounts receivable

2.5.3 Example: A change in credit policy

Russian Beard Co is considering a change of credit policy which will result in an increase in the average collection period from one to two months. The relaxation in credit is expected to produce an increase in sales in each year amounting to 25% of the current sales volume.

Selling price per unit	\$10
Variable cost per unit	\$8.50
Current annual sales	\$2,400,000

The required rate of return on investments is 20%. Assume that the 25% increase in sales would result in additional inventories of \$100,000 and additional accounts payable of \$20,000.

Advise the company on whether or not to extend the credit period offered to customers, if:

- All customers take the longer credit of two months
- Existing customers do not change their payment habits, and only the new customers take a full two months credit

Solution

The change in credit policy is justifiable if the rate of return on the additional investment in working capital would exceed 20%.

Extra profit	
Contribution/sales ratio	15%
Increase in sales revenue	\$600,000
Increase in contribution and profit	\$90,000

- (a) *Extra investment, if all accounts receivable take two months credit*

	\$
Average accounts receivable after the sales increase ($2/12 \times \$3,000,000$)	500,000
Less current average accounts receivable ($1/12 \times \$2,400,000$)	<u>200,000</u>
Increase in accounts receivable	300,000
Increase in inventories	<u>100,000</u>
	400,000
Less increase in accounts payable	<u>20,000</u>
Net increase in working capital investment	<u><u>380,000</u></u>

$$\text{Return on extra investment} = \frac{\$90,000}{\$380,000} = 23.7\%$$

- (b) *Extra investment, if only the new accounts receivable take two months credit*

	\$
Increase in accounts receivable ($2/12$ of \$600,000)	100,000
Increase in inventories	<u>100,000</u>
	200,000
Less increase in accounts payable	<u>20,000</u>
Net increase in working capital investment	<u><u>180,000</u></u>

$$\text{Return on extra investment} = \frac{\$90,000}{\$180,000} = 50\%$$

In both case (a) and case (b) the new credit policy appears to be worthwhile.



Question

Extension of credit

Enticement Co currently expects sales of \$50,000 a month. Variable costs of sales are \$40,000 a month (all payable in the month of sale). It is estimated that if the credit period allowed to accounts receivable were to be increased from 30 days to 60 days, sales volume would increase by 20%. All customers would

be expected to take advantage of the extended credit. If the cost of capital is 12½% a year (or approximately 1% a month), is the extension of the credit period justifiable in financial terms?

Answer

	\$
Current accounts receivable (1 month)	50,000
Accounts receivable after implementing the proposal (2 months)	<u>120,000</u>
Increase in accounts receivable	<u>70,000</u>
Financing cost (× 12½%)	8,750
Annual contribution from additional sales (12 months × 20% × \$10,000)	<u>24,000</u>
Annual net benefit from extending credit period	<u>15,250</u>

2.6 Collecting amounts owing

FAST FORWARD

The **benefits** of action to collect debts must be greater than the **costs** incurred.

The overall **debt collection policy** of the firm should be such that the administrative costs and other costs incurred in debt collection do not exceed the benefits from incurring those costs. Beyond a certain level of spending, however, additional expenditure on debt collection would not have enough effect on bad debts or on the average collection period to justify the extra administrative costs.

Collecting debts is a two-stage process.

- (a) Having agreed credit terms with a customer, a business should issue an invoice and expect to receive payment when it is due. **Issuing invoices** and **receiving payments** is the task of sales ledger staff. They should ensure that:
 - (i) The customer is fully aware of the terms
 - (ii) The **invoice is correctly drawn up** and issued promptly
 - (iii) They are aware of any **potential quirks** in the customer's system
 - (iv) **Queries are resolved quickly**
 - (v) **Monthly statements** are issued promptly

- (b) If payments become overdue, they should be 'chased'. Procedures for pursuing overdue debts must be established, for example:
 - (i) **Instituting reminders or final demands**

These should be sent to a named individual, asking for repayment by return of post. A second or third letter may be required, followed by a final demand stating clearly the action that will be taken. The aim is to goad customers into action, perhaps by threatening not to sell any more goods on credit until the debt is cleared.
 - (ii) **Chasing payment by telephone**

The telephone is of greater nuisance value than a letter, and the greater immediacy can encourage a response. It can however be time-consuming, in particular because of problems in getting through to the right person.
 - (iii) **Making a personal approach**

Personal visits can be very time-consuming and tend only to be made to important customers who are worth the effort.
 - (iv) **Notifying debt collection section**

This means not giving further credit to the customer until he has paid the due amounts.

(v) **Handing over debt collection to specialist debt collection section**

Certain, generally larger, organisations may have a section to collect debts under the supervision of the credit manager.

(vi) **Instituting legal action to recover the debt**

Premature legal action may unnecessarily antagonise important customers.

(vii) **Hiring external debt collection agency to recover debt**

Again this may upset customers.

2.7 Early settlement discounts

FAST FORWARD

Early settlement discounts may be employed to shorten average credit periods, and to reduce the investment in accounts receivable and therefore **interest costs**. The benefit in interest cost saved should exceed the cost of the discounts allowed.

To see whether the offer of a **settlement discount** (for early payment) is financially worthwhile we must compare the cost of the discount with the benefit of a reduced investment in accounts receivable.

Varying the discount allowed for early payment of debts affects the **average collection period** and affects the **volume of demand** (and possibly, therefore, indirectly affects bad debt losses). We shall begin with examples where the offer of a discount for early payment does not affect the volume of demand.

2.8 Example: Settlement discount

Lowe and Price Co has annual credit sales of \$12,000,000, and three months are allowed for payment. The company decides to offer a 2% discount for payments made within ten days of the invoice being sent, and to reduce the maximum time allowed for payment to two months. It is estimated that 50% of customers will take the discount. If the company requires a 20% return on investments, what will be the effect of the discount? Assume that the volume of sales will be unaffected by the discount.

Solution

Our approach is to calculate:

- (a) The profits forgone by offering the discount
- (b) The interest charges saved or incurred as a result of the changes in the cash flows of the company

Thus:

- (a) The volume of accounts receivable, if the company policy remains unchanged, would be:
 $3/12 \times \$12,000,000 = \$3,000,000$.
- (b) If the policy is changed the volume of accounts receivable would be:
 $(10/365 \times 50\% \times \$12,000,000) + (2/12 \times 50\% \times \$12,000,000) = \$164,384 + \$1,000,000$
 $= \$1,164,384$.
- (c) There will be a reduction in accounts receivable of \$1,835,616.
- (d) Since the company can invest at 20% a year, the value of a reduction in accounts receivable (a source of funds) is 20% of \$1,835,616 each year in perpetuity, that is, \$367,123 a year.
- (e) *Summary*

	\$
Value of reduction in accounts receivable each year	367,123
Less discounts allowed each year (2% × 50% × \$12,000,000)	<u>120,000</u>
Net benefit of new discount policy each year	<u>247,123</u>

An extension of the payment period allowed to accounts receivable may be introduced in order to increase sales volume.

2.9 Percentage cost of an early settlement discount

The **percentage cost** of an early settlement discount to the company giving it can be estimated by the formula:

$$1 - \left(\frac{100}{100 - d} \right)^{\frac{365}{t}} \%$$

Where d = the discount offered (5% = 5, etc)

t = the reduction in the payment period in days that is necessary to obtain the early payment discount



Question

Cost of discount

A company offers its goods to customers on 30 days' credit, subject to satisfactory trade references. It also offers a 2% discount if payment is made within ten days of the date of the invoice.

Required

Calculate the cost to the company of offering the discount, assuming a 365 day year.

Answer

$$\begin{aligned} \text{The percentage cost of the discount} &= 1 - \left[\frac{100}{(100 - 2)} \right]^{\frac{365}{20}} \\ &= 1 - 1.02041^{18.25} \\ &= 1 - 1.446 \\ &= 44.6\% \end{aligned}$$

2.10 Bad debt risk

Different credit policies are likely to have differing levels of bad debt risk. The higher turnover resulting from easier credit terms should be sufficiently profitable to exceed the cost of:

- Bad debts, and
- The additional investment necessary to achieve the higher sales

2.10.1 Example: Receivables management

Grabbit Quick Co achieves current annual sales of \$1,800,000. The cost of sales is 80% of this amount, but bad debts average 1% of total sales, and the annual profit is as follows.

	\$
Sales	1,800,000
Less cost of sales	1,440,000
	<u>360,000</u>
Less bad debts	18,000
Profit	<u>342,000</u>

The current debt collection period is one month, and the management consider that if credit terms were eased (option A), the effects would be as follows.

	<i>Present policy</i>	<i>Option A</i>
Additional sales (%)	–	25%
Average collection period	1 month	2 months
Bad debts (% of sales)	1%	3%

The company requires a 20% return on its investments. The costs of sales are 75% variable and 25% fixed. Assume there would be no increase in fixed costs from the extra turnover; and that there would be no increase in average inventories or accounts payable. Which is the preferable policy, Option A or the present one?

Solution

The increase in profit before the cost of additional finance for Option A can be found as follows.

(a)		\$
	Increase in contribution from additional sales	
	$25\% \times \$1,800,000 \times 40\%*$	180,000
	Less increase in bad debts ($3\% \times \$2,250,000$) – \$18,000	<u>49,500</u>
	Increase in annual profit	<u>130,500</u>
	* The C/S ratio is $100\% - (75\% \times 80\%) = 40\%$	
(b)		\$
	Proposed investment in accounts receivable $\$2,250,000 \times 1/6$	375,000
	Less current investment in accounts receivable $\$1,800,000 \times 1/12$	<u>150,000</u>
	Additional investment required	<u>225,000</u>
	Cost of additional finance at 20%	\$45,000
(c)	As the increase in profit exceeds the cost of additional finance, Option A should be adopted.	

2.10.2 Credit insurance

Companies might be able to obtain credit insurance against certain approved debts going bad through a specialist credit insurance firm. A company cannot insure against all its bad debt losses, but may be able to insure against losses above the normal level.

When a company arranges **credit insurance**, it must submit specific proposals for credit to the insurance company, stating the name of each customer to which it wants to give credit and the amount of credit it wants to give. The insurance company will accept, amend or refuse these proposals, depending on its assessment of each of these customers.

2.11 Factoring

6/08, 12/08

FAST FORWARD

Some companies use **factoring** and **invoice discounting** to help short-term liquidity or to reduce administration costs. **Insurance**, particularly of overseas debts, can also help reduce the risk of bad debts.

A **factor** is defined as 'a doer or transactor of business for another', but a factoring organisation specialises in trade debts, and manages the debts owed to a client (a business customer) on the client's behalf.

Key term

Factoring is an arrangement to have debts collected by a factor company, which advances a proportion of the money it is due to collect.

2.11.1 Aspects of factoring

The main aspects of **factoring** include the following.

- Administration** of the client's invoicing, sales accounting and debt collection service
- Credit protection** for the client's debts, whereby the factor takes over the risk of loss from bad debts and so 'insures' the client against such losses. This is known as a **non-recourse** service. However, if a **non-recourse** service is provided the factor, not the firm, will decide what action to take against non-payers.
- Making **payments** to the client **in advance** of collecting the debts. This is sometimes referred to as 'factor finance' because the factor is providing cash to the client against outstanding debts.)

2.11.2 Benefits of factoring

The **benefits of factoring** for a business customer include the following.

- (a) The business can **pay its suppliers promptly**, and so be able to take advantage of any early payment discounts that are available.
- (b) **Optimum inventory levels** can be **maintained**, because the business will have enough cash to pay for the inventories it needs.
- (c) **Growth** can be **financed** through **sales** rather than by injecting fresh external capital.
- (d) The business gets **finance linked** to its **volume of sales**. In contrast, overdraft limits tend to be determined by historical statements of financial position.
- (e) The **managers** of the business **do not** have to **spend their time** on the problems of **slow paying accounts receivable**.
- (f) The business does **not incur** the **costs of running** its own **sales ledger department**, and can use the **expertise** of debtor management that the factor has.

An important **disadvantage** is that accounts receivable will be making payments direct to the factor, which is likely to present a negative picture of the firm's **attitude to customer relations**. It may also indicate that the firm is in need of rapid cash, raising questions about its **financial stability**.

2.11.3 Example: Factoring

A company makes annual credit sales of \$1,500,000. Credit terms are 30 days, but its debt administration has been poor and the average collection period has been 45 days with 0.5% of sales resulting in bad debts which are written off.

A factor would take on the task of debt administration and credit checking, at an annual fee of 2.5% of credit sales. The company would save \$30,000 a year in administration costs. The payment period would be 30 days.

The factor would also provide an advance of 80% of invoiced debts at an interest rate of 14% (3% over the current base rate). The company can obtain an overdraft facility to finance its accounts receivable at a rate of 2.5% over base rate.

Should the factor's services be accepted? Assume a constant monthly turnover.

Solution

It is assumed that the factor would advance an amount equal to 80% of the invoiced debts, and the balance 30 days later.

- (a) The current situation is as follows, using the company's debt collection staff and a bank overdraft to finance all debts.

Credit sales	\$1,500,000 pa
Average credit period	45 days

The annual cost is as follows:

	\$
$45/365 \times \$1,500,000 \times 13.5\% (11\% + 2.5\%)$	24,966
Bad debts $0.5\% \times \$1,500,000$	7,500
Administration costs	<u>30,000</u>
Total cost	<u>62,466</u>

- (b) *The cost of the factor.* 80% of credit sales financed by the factor would be 80% of \$1,500,000 = \$1,200,000. For a consistent comparison, we must assume that 20% of credit sales would be financed by a bank overdraft. The average credit period would be only 30 days. The annual cost would be as follows.

	\$
Factor's finance $30/365 \times \$1,200,000 \times 14\%$	13,808
Overdraft $30/365 \times \$300,000 \times 13.5\%$	<u>3,329</u>
	17,137
Cost of factor's services: $2.5\% \times \$1,500,000$	<u>37,500</u>
Cost of the factor	<u><u>54,637</u></u>

- (c) *Conclusion.* The factor is cheaper. In this case, the factor's fees exactly equal the savings in bad debts (\$7,500) and administration costs (\$30,000). The factor is then cheaper overall because it will be more efficient at collecting debts. The advance of 80% of debts is not needed, however, if the company has sufficient overdraft facility because the factor's finance charge of 14% is higher than the company's overdraft rate of 13.5%.

An **alternative way** of carrying out the calculation is to consider the changes in costs that using a factor will mean.

	\$
Effect of reduction in collection period $\frac{45-30}{365} \times \$1,500,000 \times 13.5\%$	8,322
Extra interest cost of factor finance $30/365 \times \$1,200,000 \times (14 - 13.5)\%$	(493)
Cost of factor's services $2.5\% \times \$1,500,000$	(37,500)
Savings in bad debts $0.5\% \times \$1,500,000$	7,500
Savings in company's administration costs	<u>30,000</u>
Net benefit of using factor	<u><u>7,829</u></u>

Check: $\$62,466 - \$54,637 = \$7,829$

Exam focus point

Points to look out for in questions about factoring are who bears the risk of bad debts, and company administration costs that may be saved by using a factor. Examiners have commented that calculations of the cost of factoring have often been poor.

2.12 Invoice discounting

6/08

Key term

Invoice discounting is the purchase (by the provider of the discounting service) of trade debts at a discount. Invoice discounting enables the company from which the debts are purchased to raise working capital.

Invoice discounting is related to factoring and many factors will provide an invoice discounting service. It is the purchase of a selection of invoices, at a discount. The invoice discounter does not take over the administration of the client's sales ledger.

A client should only want to have some invoices discounted when he has a temporary cash shortage, and so invoice discounting tends to consist of one-off deals. **Confidential invoice discounting** is an arrangement whereby a debt is confidentially assigned to the factor, and the client's customer will only become aware of the arrangement if he does not pay his debt to the client.

If a client needs to generate cash, he can approach a factor or invoice discounter, who will offer to purchase selected invoices and advance up to 75% of their value. At the end of each month, the factor will pay over the balance of the purchase price, less charges, on the invoices that have been settled in the month.

Exam focus point

Don't confuse invoice discounting with early settlement discounts. They are not the same thing.

2.13 Managing foreign accounts receivable

FAST FORWARD

Exporters have to address the problems of **larger inventories and accounts receivable**, and an **increased risk of bad debts** due to the transportation time and additional paperwork involved in sending goods abroad.

Foreign debts raise the following special problems.

- (a) When goods are sold abroad, the customer might ask for credit. Exports take time to arrange, and there might be complex paperwork. Transporting the goods can be slow, if they are sent by sea. These **delays in foreign trade** mean that exporters often build up large investments in inventories and accounts receivable. These working capital investments have to be financed somehow.
- (b) The **risk of bad debts** can be **greater** with foreign trade than with domestic trade. If a foreign debtor refuses to pay a debt, the exporter must pursue the debt in the debtor's own country, where procedures will be subject to the laws of that country.

There are several measures available to exporters to overcome these problems.

2.13.1 Reducing the investment in foreign accounts receivable

A company can reduce its investment in foreign accounts receivable by insisting on **earlier payment** for goods. Another approach is for an exporter to arrange for a bank to give **cash for a foreign debt**, sooner than the exporter would receive payment in the normal course of events. There are several ways in which this might be done.

- (a) **Advances against collections.** Where the exporter asks his bank to handle the collection of payment (of a bill of exchange or a cheque) on his behalf, the bank may be prepared to make an advance to the exporter against the collection. The amount of the advance might be 80% to 90% of the value of the collection.
- (b) **Negotiation of bills or cheques.** This is similar to an advance against collection, but would be used where the bill or cheque is payable outside the exporter's country (for example in the foreign buyer's country).
- (c) **Discounting bills of exchange.** This is where a bank buys the bill before it is due and credits the value of the bill after a discount charge to the company's account.
- (c) **Documentary credits.** These are described below.

2.13.2 Reducing the bad debt risk

Methods of minimising bad debt risks are broadly similar to those for domestic trade. An exporting company should vet the creditworthiness of each customer, and grant credit terms accordingly.

2.13.3 Export factoring

The functions performed by an **overseas factor** or **export factor** are essentially the same as with the factoring of domestic trade debts, which was described earlier in this chapter.

The charges levied by an overseas factor may turn out to be cheaper than using alternative methods such as letters of credit, which are discussed below.

2.13.4 Documentary credits

Documentary credits provide a method of payment in international trade, which gives the exporter a secure risk-free method of obtaining payment.

The buyer (a foreign buyer, or a UK importer) and the seller (a UK exporter or a foreign supplier) first of all agree a contract for the sale of the goods, which provides for payment through a documentary credit. The *buyer* then requests a bank in his country to issue a **letter of credit** in favour of the exporter. The issuing bank, by issuing its letter of credit, guarantees payment to the beneficiary.

A documentary credit arrangement must be made between the exporter, the buyer and participating banks **before the export sale takes place**. Documentary credits are slow to arrange, and administratively cumbersome; however, they might be considered essential where the risk of non-payment is high.

2.13.5 Countertrade

Countertrade is a means of financing trade in which goods are exchanged for other goods. Three parties might be involved in a 'triangular' deal. Countertrade is thus a form of **barter**. It accounts for around 10% – 15% of total international trade according to one estimate.

2.13.6 Export credit insurance

Key term

Export credit insurance is insurance against the risk of non-payment by foreign customers for export debts.

You might be wondering why export credit insurance should be necessary, when exporters can pursue **non-paying customers** through the courts in order to obtain payment. The answer is that:

- (a) If a credit customer defaults on payment, the task of pursuing the case through the courts will be lengthy, and it might be a long time before payment is eventually obtained.
- (b) There are various reasons why non-payment might happen (Export credit insurance provides insurance against non-payment for a variety of risks in addition to the buyer's failure to pay on time.)

Not all exporters take out export credit insurance because premiums are very high and the benefits are sometimes not fully appreciated. If they do, they will obtain an insurance policy from a private insurance company that deals in export credit insurance.

2.13.7 Overseas accounts receivable; general policies

There are also a number of general credit control policies that can be particularly important when dealing with overseas customers.

- (a) Prior to the sale, the customer's **credit rating** should be **checked**, and the terms of the contract specified. One key term may be demanding the use of an **irrevocable letter of credit** as a term of release of goods. The terms of the **remittance** and the bank to be used should be specified.
- (b) The **paperwork** relating to the sales should be carefully completed and checked, in particular the shipping and delivery documentation.
- (c) Goods should only be released if payment has been made, or is sufficiently certain, either because of the customer's **previous record** or because the customer has issued a **promissory note**.
- (d) Receipts should be **rapidly processed** and late **payments chased**.

3 Managing accounts payable

FAST FORWARD

Effective management of **trade accounts payable** involves seeking satisfactory credit terms from supplier, getting credit extended during periods of cash shortage, and maintaining good relations with suppliers.

Exam focus point

It may seem an obvious point, but take care not to confuse accounts receivable and accounts payable, as many students do under exam pressure.

3.1 Management of trade accounts payable

The management of trade accounts payable involves:

- Attempting to obtain **satisfactory credit** from suppliers
- Attempting to **extend credit** during periods of cash shortage
- Maintaining **good relations** with regular and important suppliers

If a supplier offers a discount for the early payment of debts, the evaluation of the decision whether or not to **accept the discount** is similar to the **evaluation of the decision** whether or not to **offer a discount**. One problem is the mirror image of the other. The methods of evaluating the offer of a discount to customers were described earlier.

3.1.1 Trade credit

Taking credit from suppliers is a normal feature of business. Nearly every company has some trade accounts payable waiting for payment. It is particularly important to small and fast growing firms. Trade credit is a source of short-term finance because it helps to keep working capital down. It is usually a cheap source of finance, since suppliers rarely charge interest. The costs of making maximum use of trade credit include the loss of suppliers' goodwill, and the loss of any available cash discounts for the early payment of debts.

3.1.2 The cost of lost early payment discounts

The cost of lost cash discounts can be calculated by comparing the saving from the discount with the opportunity cost of investing the cash used.

The cost of lost cash discounts can also be estimated by the formula:

$$1 - \left(\frac{100}{100-d} \right)^{\frac{365}{t}} \%$$

where d is the % discount, $d = 5$ for 5%.

t is the reduction in the payment period in days which would be necessary to obtain the early payment discount, final date to obtain discount – final date for payment

This is the same formula that was used for accounts receivable.

3.2 Example: Trade credit

X Co has been offered credit terms from its major supplier of 2/10, net 45. That is, a cash discount of 2% will be given if payment is made within ten days of the invoice, and payments must be made within 45 days of the invoice. The company has the choice of paying 98c per \$1 on day 10 (to pay before day 10 would be unnecessary), or to invest the 98c for an additional 35 days and eventually pay the supplier \$1 per \$1. The decision as to whether the discount should be accepted depends on the opportunity cost of investing 98c for 35 days. What should the company do?

Solution

Suppose that X Co can invest cash to obtain an annual return of 25%, and that there is an invoice from the supplier for \$1,000. The two alternatives are as follows.

	<i>Refuse discount</i>	<i>Accept discount</i>
	\$	\$
Payment to supplier	1,000.0	980
Return from investing \$980 between day 10 and day 45:		
\$980 × 35/365 × 25%	23.5	—
Net cost	<u>976.5</u>	<u>980</u>

It is cheaper to refuse the discount because the investment rate of return on cash retained, in this example, exceeds the saving from the discount.

Although a company may delay payment beyond the final due date, thereby obtaining even longer credit from its suppliers, such a policy would generally be inadvisable. Unacceptable delays in payment will **worsen the company's credit rating**, and additional credit may become difficult to obtain.

3.3 Managing foreign accounts payable

Foreign accounts payable will be subject to **exchange rate risk**. Companies expecting to pay foreign currency in the future will be concerned about the possibility of domestic currency **depreciating** against the foreign currency making the cost of the supplies more expensive.

Companies sometimes pay into an overseas bank account today and then let the cash earn some interest so they can pay off the invoice in the future. This method of avoiding exchange rate risk is called **leading**.

The management of exchange rate risk is covered in Chapter 21.

Chapter Roundup

- An **economic order quantity** can be calculated as a guide to minimising costs in managing **inventory** levels. **Bulk discounts** can however mean that a different order quantity minimises inventory costs.
- **Uncertainties** in demand and lead times taken to fulfil orders mean that inventory will be ordered once it reaches a re-order level (maximum usage × maximum lead time).
- Offering credit has a cost: the value of the interest charged on an overdraft to fund the period of credit, or the interest lost on the cash not received and deposited in the bank. An increase in profit from extra sales resulting from offering credit could offset this cost.
- In managing **accounts receivable**, the **creditworthiness** of customers needs to be assessed. The risks and costs of a customer defaulting will need to be balanced against the profitability of the business provided by that customer.
- Regular monitoring of accounts receivable is very important. Individual accounts receivable can be assessed using a **customer history analysis** and a **credit rating system**. The overall level of accounts receivable can be monitored using an **aged accounts receivable listing** and **credit utilisation report**, as well as reports on the level of bad debts.
- The **benefits** of action to collect debts must be greater than the **costs** incurred.
- **Early settlement discounts** may be employed to shorten average credit periods, and to reduce the investment in accounts receivable and therefore **interest costs**. The benefit in interest cost saved should exceed the cost of the discounts allowed.
- Some companies use **factoring** and **invoice discounting** to help short-term liquidity or to reduce administration costs. **Insurance**, particularly of overseas debts, can also help reduce the risk of bad debts.
- **Exporters** have to address the problems of **larger inventories and accounts receivable**, and an increased **risk** of bad debts due to the transportation time and additional paperwork involved in sending goods abroad.
- Effective management of **trade accounts payable** involves seeking satisfactory credit terms from supplier, getting credit extended during periods of cash shortage, and maintaining good relations with suppliers.