AS Business Studies

Finance and accounting: Revision

Start-up capital and capital for expansion

Business start-up

When a business is first set up, the owners will need finance to buy premises (if not renting), equipment and/or raw materials. Service businesses will also need some initial finance. For example, a business consultant is likely to require an office that will need to be furnished and equipped, perhaps with chairs, desks, telephones and computers. These need to be purchased or leased; either way money will be needed.

Businesses usually experience other expenses such as wages before any income is received. Sufficient finance must be available to cover these initial costs. This is known as 'start-up capital'.

Business expansion

Established businesses frequently make the decision to expand. This might be acquiring additional premises or equipment. In some cases, finance might be required in order to buy another existing business. This differs from start-up capital because this type of finance is only required after the business is operational.

Different needs require different sources of finance

The need for finance might be for a long-term project and therefore long-term sources of finance are likely to be used. For example a business may need finance for:

- new product development
- the exploration and development of new markets
- an increased level of promotion in response to the arrival of a potentially serious competitor — this could be a long-term issue for a business if the competitor stays in the market

Alternatively the need for finance might be related to temporary short-term shortages of finance, for example while waiting for payment from customers, causing short-term sources of finance to be more appropriate. For example to:

- purchase materials
- pay wages or utility bills
- pay for promotional activities

The amount of money required, regardless of the length of time involved, might also influence the source of finance that would be used.

Start-up capital: the money that a business requires to begin operating, e.g. to purchase or rent premises, to purchase equipment or raw materials.

Expert tip

In answering any question related to this topic make sure that you take note of the reason why the business needs finance, i.e. for start-up capital or to expand an existing business. This will influence the sources of capital that would be used. Take note also of the size of the business and its form of ownership as this also influences sources of finance.

Working capital

The meaning and significance of working capital as a source of finance

- Working capital is used to finance the day-to-day activities of a business.
 It finances the purchase of materials and the payment of wages to the employees. Working capital is current assets minus current liabilities.
- Current assets consist of liquid assets, i.e. inventory (stock), trade receivables (debtors) and cash and cash equivalents.
- Current liabilities consist of trade and other payables (creditors) and overdrafts.

Positive working capital

Where a business has positive working capital this means that the business has more current assets than current liabilities. Too much working capital means that the business has assets that are not working hard enough. It could be that too much money is tied up in stock and is therefore creating an opportunity cost. The money held in stock could be used more productively elsewhere in the business.

Negative working capital

In this situation, current liabilities exceed current assets. Too little working capital could mean that the business is unable to pay its **short-term liabilities** such as suppliers and wages. This could lead to the business becoming illiquid and ultimately failing. Liquidity means the ease with which an asset can be turned into cash.

A shortfall in working capital is often resolved by agreeing an overdraft to enable the business to continue to function.

Many businesses fail due to a lack of working capital even though they are profitable.

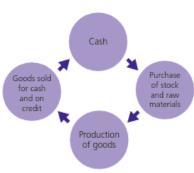
Working capital: the excess of current assets over current liabilities: also known as net current assets.

Liquid assets: the assets that can be quickly and easily converted into cash. For example, bank accounts and stock although stock is the least liquid of the current assets.

Working capital cycle: the time between purchasing stock and/or raw materials and the receipt of payment from customers for the goods or services received.

The working capital cycle

Many businesses carefully monitor their **working capital cycle** which is shown in Figure 1.



Revenue expenditure: money used

to pay for everyday running costs of a business such as raw materials and

acquire non-current assets (fixed assets)

that will be used in the business over a long period, e.g to purchase machinery

wages. They are short-term costs.

Capital expenditure: money used to

Figure 1 The working capital cycle

Ways of improving the cycle

These include:

- Shortening the time customers take to settle their debts.
- Speeding up the production process so that the time between receiving materials and delivering products to customers is shortened. The length of time goods are in production before being sold will affect the working capital cycle.

Remember that a positive working capital does not always mean that a business has lots of cash to spend. Although it means that current assets are greater than what the business owes in the short term, high levels of inventory (stock) are included in the working capital figure and a business cannot use that stock to pay the wages of its workers or to settle its debts with suppliers.

Significance of the distinction between revenue expenditure and capital expenditure

Revenue expenditure

Revenue expenditure is expenditure on everyday running costs within a business. Such costs might include the purchase of raw materials, the payment of wages to employees or the payment to an electricity company for the power to run the machinery. They are generally items that will be used in the short term. Revenue expenditure is shown as an expense in the income statement (profit and loss account).

Capital expenditure

Capital expenditure is expenditure on non-current assets (fixed assets) such as buildings or machinery. These items will be used in the business for a long time. It is recorded in the statement of financial position (balance sheet).

If a business purchases new machinery and pays for it with cash, the payment will show as a reduction in the cash balance of the business. If a bank loan is used to pay for the machinery, then this will be seen as an increase in the non-current liabilities (long-term liabilities).

The new machine will also appear as an increase in the non-current assets (fixed assets) of the business.

Working capital (also called 'Net current assets')

Day to day finance of the organisation = current assets – current liabilities

Managing working capital

Involves decisions regarding:

- stock levels; a firm will want enough stock to ensure continued production and sales but at the same time will want to reduce stock levels to reduce the opportunity cost, warehousing costs
- debtor levels; a firm may want to offer credit to attract more business but at the same time having too many debtors may be bad for its cash flow
- cash levels: a firm may want cash because it is so liquid; at the same time holding cash has an opportunity cost
- creditors; a firm may want to delay paying creditors because this means it holds on to its cash for longer. At the same time this may lose the goodwill of suppliers

Improving working capital

- Manage cash effectively, e.g. control spending
- Try to increase credit period from suppliers
- Try to get goods produced and sold as quickly as possible (this minimises time between spending money to produce and receiving the cash from a sale)
- Effective credit control i.e. do not have too many debtors, collect money efficiently, make sure debtors can pay
- Manage stocks effectively (stocks represent tied up money), e.g. try to adopt JIT

Credit control

Controlling credit policy and terms and conditions involves:

- · assessing future customers to decide whether they are credit worthy
- determining credit terms and conditions (e.g. payment terms, number of days of credit given, interest charged)
- · policies to deal with late payers

Sources of finance

Legal structure and sources of finance

The sources of finance available to a business can be influenced by the legal structure of an individual business, the size of the business and the reason for which finance is required, and the amount required and the length of time for which the finance is needed.

A sole trader or a partnership would not have access to share capital unless they changed the structure of their business to a private limited company or a public limited company. Remember that the sale of shares in a private limited company is limited and it cannot be sold to members of the public. A public limited company is able to sell shares to anyone through the **stock exchange**.

Stock exchange: the place where stocks and shares are bought and sold.

Short-term and long-term sources of finance

Distinction between short- and long-term sources of finance

- Short-term finance: usually defined as being repayable within 12 months, e.g. an overdraft or short-term bank loan.
- Long-term finance: repayable over terms as long as 10 or 20 years, e.g. a mortgage or a long-term bank loan.

The sources of finance can be internal or external to the business.

Internal sources of finance

Internal sources of finance are those sourced within the business itself. Examples include retained profit, working capital and the sale of assets. Table 1 outlines the advantages and disadvantages of the various kinds of internal sources of finance.

Table 1 Advantages and disadvantages of internal sources of finance

Source	Advantages	Disadvantages
Retained earnings (retained profit) Profit earned by the business in previous years of trading.	 Does not require interest payments to be made. Does not have to be repaid to anyone. Is instantly available. Does not create a debt to anyone outside the business. 	Is dependent on previous years having been profitable. If shareholders prefer larger dividends, they might not agree to its use.
Sale of assets Assets that are no longer used by a business can be converted into money to provide finance for other projects. Some assets can be sold without the business losing the use of them. If assets are sold and then leased back the initial inflow of funds must be balanced against the lease payments that will have to be made. The business must be sure that it does not need to own the asset that is to be sold.	The finance does not have to be repaid to anyone — it is a permanent source of finance. It does not incur interest payments. It can be a fast method of obtaining finance although this depends on the asset being sold, e.g. buildings can take some time to be sold.	The amount raised might not be large; if a business no longer needs the asset will it have a high value? The asset and its use is permanently lost to the business. If the asset is sold and leased back this will require regular payments to be made by the business in the future.
Working capital This source of finance can be made available by ensuring that credit customers settle their debts. Inventory can be sold off perhaps on special terms in order to increase the amount of working capital available.	It is a permanent source of finance. By having a special sale, old inventory can be sold off, making room for more up-to-date stock. It can be a fast way of raising finance.	The current assets might be reduced to a point that makes it difficult to cover current liabilities. Customers might not be happy about being asked to settle their debts earlier than usual. Potential new customers might prefer to deal with a business that offers a longer credit period. It might not produce a large amount of finance.

Internal sources of finance might be insufficient to satisfy the financial needs of the business. If the finance is required for a large project then it is possible that internal sources alone will not be sufficient.

It is possible that a business might have sufficient **retained earnings** to finance a large project, but most businesses will have been using their retained earnings to help to generate larger future income rather than letting it accumulate.

Retained earnings: retained earnings are the profit earned by a business in previous years.

External sources

Examples of external sources of finance include overdrafts, bank loans, mortgages, introduction of new partners or sale of shares. Table 2 outlines the advantages and disadvantages of these sources of finance.

Short-term sources

Table 2 Advantages and disadvantages of short-term sources of finance

Source	Advantages	Disadvantages
Bank overdraft The bank agrees to allow a business to draw money greater than the amount in the account. A limit is placed on the additional amount that can be drawn. Overdrafts should be agreed before they are used. An unagreed overdraft is likely to carry even higher interest rates.	Usually quick to put in place. There is no loss of ownership or control. Flexibility — business does not need to use the full amount of overdraft agreed and will not incur charges for the unused amount.	Often expensive due to high rates of interest being charged. Overdrafts can be recalled at short notice — this might mean the business is unable to meet its short-term financial obligations. The business will need evidence that it will receive funds shortly, e.g. from customers. The final amount to be repaid is often uncertain.
Short-term bank loan Money loaned to a business to be repaid usually within 12 months.	Security (collateral) is not always required. Usually a cheaper option than an overdraft. The term of the loan will be fixed and stated. Regular repayments aid budgeting.	The amount agreed cannot be varied unlike an overdraft. Interest is payable on the whole amount. Early repayment might incur a financial penalty.

Long-term sources

Long-term sources of finance are often used when finance is required for a project that is likely to take a long time before it becomes profitable. These sources can be permanent or non-permanent sources of funding. Some sources will require repayment at some time in the future, whilst other do not require any repayments to be made. Table 3 outlines the sources of long-term finance and their advantages and disadvantages.

Table 3 Advantages and disadvantages of long-term sources of finance

Source	Advantages	Disadvantages
	Advantages	Disadvantages
Introduce new partners A source of long-term permanent finance. A sole trader might become a partnership or an existing partnership might invite additional people to join the business. If a new partner is admitted, the existing partners must agree.	 Usually a quick method of acquiring additional finance. It is a permanent source of finance. 	 Some ownership and control of the business is lost. A sole trader taking in partners loses some independence.
Share capital	It is a permanent source of finance	The ownership of the company
Available to incorporated businesses and can involve the sale of shares to new or existing shareholders. Sale of shares results in the sale of part of the ownership of the business.	 and does not have to be repaid. It can potentially raise large sums of money. 	is diluted if new shareholders are introduced. The amount of authorised share capital will limit the amount of shares that can be issued.
Private limited company: existing shareholders must agree if shares are to be sold to new shareholders.		
Public limited company: shares may be bought by new or existing shareholders through the stock exchange and can be sold to the general public.		
Long-term loans Usually used for large and/or expensive projects when it might take a long time before the sum borrowed can be totally repaid. The higher the risk to the lender, the higher will be the rate of interest that must be paid on the money borrowed.	 The amount and time of the loan is fixed. There is a possibility a fixed rate of interest can be agreed, removing the threat of future interest rate increases. Ownership and control of the business is unaffected. The regularity of payments aids budgeting. 	 Interest must be paid. This varies according to the risk involved, the length of the loan and current rates of interest. Repayments usually begin as soon as the loan is taken, but some projects might not yield returns for some time. Lenders require a guarantee, i.e. security or collateral. Assets used as security will be seized and sold if the loan is not repaid as agreed.
Mortgages Usually used for the purchase of premises. They are often repaid over 20 or 30 years or even longer. The security to the lender will be the value of the premises being purchased and perhaps other property owned by the borrower until the value of the mortgage is fully repaid. The borrower has full use of the property throughout the term of the mortgage.	Large amounts can be raised. Ownership and control remain unaffected. The asset can be sold but the mortgage debt must be cleared. Once the value of the asset exceeds that of the amount borrowed, an additional mortgage might be possible if extra funds are required.	If the value of the asset falls below the value of the original loan, the full value of the mortgage is still due. Interest payable on the loan will be determined by the current rate of interest unless on a fixed term agreement. Mortgage payments must be made whether or not a profit is made. The asset can be seized if repayments are not made as agreed. If the amount recovered is less than the outstanding debt the borrower is liable to pay the difference.
Debentures Debentures do not give the holders any ownership in the business. They are issued for a specified time period and yield a fixed rate of interest each year. The capital sum is repaid to the investor when the maturity date is reached.	 Ownership and control is unaffected. Large amounts of finance can be raised. Repayment of the loan is not made until the maturity date. 	 A fixed rate of interest must be paid whether or not the business is profitable. A debenture might be linked to a specified asset that can be sold if the business is unable to repay the lender at the maturity date. A large amount of finance raised through the issue of debentures (noncurrent liability) might deter other potential lenders.

ture	capital	

Source

Vent Venture capitalists are generally associated with riskier ventures that other lenders might avoid. Although more willing to take risks, they might demand a higher return on their capital.

Venture capitalists will often require some share in the ownership of the business in order to protect their investment.

- Business advice is also frequently available as well as the finance. The loan might be a permanent
- source of finance or is only repayable if the venture is profitable. It provides a last resort for businesses
- that are unable to provide proof of their ability to repay a loan, e.g. new business.
- · There might be some loss of ownership and control.

Disadvantages

- · The venture capitalist might want the business to take a direction about which the original owner(s) is not
- · Future profits might have to be shared with the lender.

Government grants and loans

A grant does not have to be repaid unlike a loan. Governments use grants to stimulate specific aspects of an economy, e.g. to encourage employment or to stimulate activity within, say, the building sector of an economy.

Permanent finance.

Advantages

- Grants do not have to be repaid.
- · Loans can have a lower rate of interest than loans from a bank.
- · Can be available to businesses that might not be able to get finance elsewhere.
- · There could be strict quidelines about how the money can be spent, e.g. to purchase new equipment.
- The business might be required to relocate to an area of high unemployment.
- Loans have to be repaid with interest.

Expert tip

There is often confusion over whether or not the sale of shares is an internal or an external source of finance. Shares are an external source of finance because they are purchased with money drawn from accounts outside the business.

Authorised share capital: the total amount of shares that a business is allowed to issue.

Debentures: long-term loans made to a business, which earn annual interest and the capital sum is returned to the lender at the maturity date.

Venture capital: money received from individuals who are willing to take a risk in offering financial support to a business.

Expert tip

The context in a question should be considered when suggesting various sources of finance. Is the project short or long term? Is the business a sole trader, partnership, private limited company or public limited company?

Factors influencing the sources of finance and the selection of the source of finance

Different sources of finance are appropriate in different circumstances. The chosen source of finance might be for many reasons:

- The financial history of the business. The financial history of the business includes the length of time that the business has been in existence and also the evidence that shows how well or not the financial affairs of the business are and have been managed. A business that already has high levels of debt will be considered too great a risk for a lender to agree to any additional finance.
- Whether the finance is required for the short term or the long term. A short-term need for finance would be advisable, for example, to pay suppliers and wages until customers settle their debts. The time for which the finance is required should be matched by the repayment period of any loan.
- The use to which the finance will be put. Large projects, such as the building of a new factory, are usually financed by long-term sources because it is likely to be a long time before profits from the new factory are gained.
- Need to retain control. Ownership and control of a business must also be considered. Current owner(s) might prefer to choose a source of finance that does not involve any dilution of ownership and control, in which case options such as issuing shares would be ignored.
- The cost of various options. The rate of interest to be paid is an obvious consideration. Fixed interest loans are sometimes available, but if interest rates in general were to fall then the loan repayments will be higher than they might have been if a variable interest rate loan had been taken. Debentures incur lower payments initially because only interest is paid until the maturity date when the capital sum must also be repaid to the holders of debenture certificates.
- Flexibility. A bank loan is likely to offer more flexibility in the ways that the money can be used than a government loan or grant. Governments often insist that a business receiving a government loan or grant meets certain criteria. For example, the business might be required to locate in a specific area to help to reduce unemployment. The business might also be given finance on the understanding that it is used for building new premises or for purchasing new equipment.
 - Flexibility can also be required by a business in terms of how and when it can repay the debt. Some businesses might ask to delay the start of any repayments until the project has begun to yield some returns. A business might also want the flexibility to repay the debt earlier than agreed without any penalty, although some banks will penalise early repayment of loans by requiring interest that would have been paid for part of the remaining duration of the loan to be added to the final payment.

Forecasting cash flows and managing working capital

Purposes of cash-flow forecasts

A **cash-flow forecast** is produced to estimate or predict the amount of cash that a business can anticipate having in a particular period. It helps a business prepare for times when it might experience a shortfall in cash and can therefore make arrangements for an injection of cash in time to cover the shortfall.

The estimate could prove to be inaccurate. A cash-flow forecast is not based on cash inflows and outflows that have already happened. It is an educated guess about what can reasonably be expected to happen in the future.

Difference between cash and profit

- Cash is money in the form of notes and coins or money held in bank accounts that is readily available to pay for a business's purchases.
- Profit is the difference between sales revenue and costs. Profit is not
 necessarily money that is available to spend because some sales might have
 been credit sales and payments have not yet been received. Some customers
 might never settle their debts and therefore that 'profit' will never be
 available for the business to spend.

The importance for a business of holding a suitable amount of cash

- Cash allows a business to pay for items such as wages and payments to suppliers. Employees would not continue to work for a business that did not pay their wages and suppliers would not continue to supply a business that did not settle its debts.
- A business must have access to sufficient cash to enable it to meet shortterm financial obligations.
- A profitable business can be declared insolvent if it cannot honour its shortterm liabilities
- Holding too much cash creates an opportunity cost because the money might have been used in a way that produced a beneficial outcome for the business, e.g. investment in new equipment or by placing it in an interest yielding account.
- It is the production of a cash-flow forecast that allows businesses to monitor the level of cash in the business and to take timely action to ensure that an appropriate level of cash is maintained.
- A profitable business can fail because it has a cash-flow problem. New businesses are particularly vulnerable due to suppliers refusing to sell on credit terms until the business is more established. However, the customers of the business are likely to expect credit terms to be given to them, causing a cash-flow problem.

Cash-flow forecasts in practice

Uses of cash-flow forecasts

- To predict times when there might be a shortage of cash in the business. This is particularly important when a large payment has to be made, for example, the premises insurance. Regular weekly or monthly payments do not tend to have a disruptive effect on cash flow, but a large quarterly, half-yearly or annual payment might be forgotten, and therefore not planned for, causing a shortfall in the cash balance of the business. Businesses must be prepared for these less regular payments.
- To plan for foreseeable variations in cash flow. Seasonal variations can have a large impact on the cash flow of some businesses, e.g. those involved in the tourist industry. Fixed costs will still have to be paid, whilst the inflow of cash is severely reduced at certain times of the year.
- To set targets. A business can set reduced targets for spending to ensure that outflows do not exceed inflows. Expenditure can perhaps be delayed until the cash situation is improved.
- To show to a potential lender. When a business requests an overdraft or a bank loan, the lender usually needs proof that the business will be able to make the repayments. A cash-flow forecast can be used to show that the cash flow is sufficient to allow the loan repayments to be made.
- To undertake 'what if' analysis. The potential impact of predicted changes to sales and/or costs can be anticipated. It could also illustrate the impact of changing the credit terms given to debtors or received from creditors.

Construction of cash-flow forecasts

Various formats are used for cash-flow forecasts. A simple example of what is contained in a cash-flow forecast is shown below.

	\$
Cash inflows	
Payments from customers	3,500
Bank loan	10,000
Cash injection from owner	4,000
Total cash inflow	17,500
Cash outflows	
Rent	3,400
Purchase of vehicle	9,500
Payments to suppliers	2,800
Wages	3,500
Total cash outflow	19,200
Net cash flow (total cash inflow – total cash outflow)	(1,700)
Opening balance	2,000
Closing balance (net cash flow + opening balance)	300

lote that:

- The closing balance becomes the opening balance for the following month.
- Cash-flow forecasts are usually constructed on a month-by-month basis to cover a 12-month period.
- Cash-flow forecasts are based on historic fact and what is expected to
 happen in the future, e.g. the arranged purchase of a new vehicle or an
 insurance premium that must be paid annually. Some figures will have to
 be estimated, e.g. the cost of raw materials or transport costs that might be
 subject to change due to market forces such as demand, supply or inflation.
- A new business faces a particular difficulty because it does not have the previous financial data on which to base its forecasts.
- Cash-flow forecasts must be as realistic as possible because they are often required by banks when a bank loan is being requested. They can also mislead a business owner into overspending if the forecast was too optimistic.

Interpretation of simple cash-flow forecasts from given data

A cash-flow forecast allows businesses to assess the following:

- Are there likely to be times when a cash shortfall is expected?
- How long is a shortfall predicted to last?
- How big is the shortfall expected to be?
- Can a cause for the shortfall be identified?
- Are there any months in which the business has a cash surplus?
- How large are the surpluses forecast to be?

Businesses must have strategies to deal with cash-flow issues. For example:

- If there is a predicted cash surplus, make sure that surplus cash is put to profitable use rather than lying unused in the business.
- If there is a predicted cash shortfall (this will be a negative figure shown in brackets):
 - Arrange funds to cover periods of cash shortfall, e.g. arrange an overdraft or short-term bank loan.
 - Check to see if any cash inflows are being delayed, e.g. payment from credit customers.
 - Perhaps postpone any planned spending or arrange a longer credit period with suppliers.
 - Do nothing. It might be that the cash shortfall is expected to be very short term and will be compensated for in the following months.

Amendment of cash flow in the light of changed circumstances

Forecasts are predictions or estimations of what can reasonably be expected to happen in the future. However, the future is never certain and therefore assumptions made might have to be changed in the light of changing circumstances. Forecasts, predictions and estimations that might change include:

- the forecast value of sales
- the credit terms offered to customers
- the credit terms from suppliers
- price changes either of own goods/services or those of suppliers
- wage rates
- interest rates
- requirements for new equipment, e.g. a new delivery van

The more realistic a cash-flow forecast is, the less need there might be to make amendments to the estimated figures. It is generally accepted that some changes are beyond the control of the business, e.g. the price of suppliers' goods.

Methods of improving cash flow

Short-term methods

Reduce the credit period given to customers (debtors)

- Ask customers to pay more quickly, e.g. reduce the credit period from 60 days to 28 days. Businesses would have to be prepared to lose customers to businesses that offer a longer credit period. They might not want to lose the business of customers placing very large orders and might consider a longer credit period for them.
- Discounts for earlier payment can be offered but this means that the total amount received will be reduced by the amount of the discount.

Reduce costs

Reducing cost may mean renegotiating prices with suppliers or finding cheaper suppliers. For example, Carole and Dougie run a small building company and their supplier had just announced a 10% increase in the price of bricks, cement and sand. Carole found another supplier that could supply them at the original price for the same quality materials. A quick phone call to the original supplier resulted in the prices charged to Carole and Dougie being unchanged.

Increase the price of goods or services sold

The success of this action is likely to depend on the reaction of customers. If price elasticity of demand is inelastic, an increase in price will lead to an increase in sales revenue, i.e. increased positive cash flow. If there are a lot of competitors then a price increase might result in a substantial fall in sales and sales revenue.

Increase sales revenue

This might need an initial cash outflow. For example, if sales are low due to a lack of awareness in the market, advertising expenditure might be needed. However, if the resulting sales revenue is greater than the advertising expenditure then cash flow will be improved.

Existing old inventory (stock) can be sold at a reduced price. It may be better to sell at a low price and receive cash than to have the goods sat in storage incurring storage costs.

Extend credit periods to creditors (suppliers)

A balance must be achieved between the credit period given to customers and that received from suppliers. If a business allows customers 45 days in which to pay for goods but pays its suppliers in 30 days, a potential for a cash shortfall is being created.

Suppliers might also experience cash-flow problems and therefore would be unlikely to agree to an extended credit period. They might prefer that the business obtained its materials elsewhere. This is likely to depend on the size of orders being placed.

Debt factoring

The debts of credit customers can be sold to a third party who will then recover the value of the debt. The business selling the debts will receive a proportion of the original invoice value with the **debt factor** keeping the remainder.

Customers might resent having their debts sold to another business, and therefore this can cause a lack of trust between a business and its credit customers, resulting in the loss of some customers.

Longer-term methods of improving cash flow

Sometimes a longer-term approach to improving cash flow is required:

- Sale and leaseback: assets can be sold to another business but then leased back from the purchaser in return for regular payments. The seller will receive an inflow of funds but will not lose use of the equipment. However, lease payments will form a regular cash outflow in the future.
- Leasing: leasing equipment means that the business never owns the asset —
 it remains the property of the lease company but it has full use of the asset
 in return for regular payments.
- Sale of assets: unused or under-used assets can be sold if the business is certain that it will not need them in the future.
- Hire purchase: instead of paying the full cost of an asset at the time of acquisition, the asset can be paid for over an agreed period. The business will make agreed regular payments until the asset plus interest is paid in full. At this time the business becomes the owner of the asset.

The link between cash flow and working capital

Working capital is current assets minus current liabilities. Current assets consist of inventory, **trade receivables (debtors)**, bank balances and cash in hand. Current liabilities consist of short-term loans and **trade payables (creditors)**.

The effective management of working capital can help to improve cash flow. For example:

- the amount of inventory is restricted
- debtors are carefully monitored
- the best possible credit terms are agreed with suppliers this can also include renegotiating loan or overdraft agreements

Situations in which various methods of improving cash flow can be used

Steps taken to improve cash flow or working capital will be dependent on the perceived cause of the problem. For example:

- Debtors delaying payment might require stricter control over which customers are given credit.
- If the problem is increasing costs, then cheaper alternative suppliers might be the answer or some other cost-cutting measures, such as taking steps to reduce wastage of resources.
- A review of marketing strategies might solve a problem of falling sales revenue.

Trade receivable (debtor): a customer of a business that has purchased goods on credit terms and will pay at a later

Trade payable (creditor): a business that has allowed another business to obtain goods and/or services on credit terms — the debt will be settled at a later date.

Debt factor: a business or individual that buys the outstanding invoices from a business. The debt factor will pay a proportion of the invoice value to the seller of the debts and then recover the debt from the debtor.

Costs

Cost information

Costs are the financial payments for resources used in production. The level of costs is a measure of efficiency.

The need for accurate cost data

For pricing

Businesses need to make sure that the price charged will cover all costs and, hopefully, provide some profit for the business.

To calculate profit

Profit = total revenue - total costs

(revenue = price × number sold; total costs = fixed costs + variable costs)

Inaccurate cost information might lead a business to anticipate a profit when, in reality, the revenue received will not cover the total costs of producing the product or providing the service.

Accurate cost information might also alert a business to the fact that it is spending too much on a particular aspect of producing its product or in the provision of its service. It also allows a business to calculate the impact of a change in price of its own product/service or of those supplied to the business.

To prepare cash-flow forecasts

A cash-flow forecast is a prediction and therefore might prove to be inaccurate. That possibility increases if the cost information on which the forecast is based is not accurate. This could lead a business to prepare for a shortfall or a surplus of cash that does not happen. An overdraft facility might have been agreed that would be insufficient to meet the actual needs of the business, which could cause severe liquidity problems.

When preparing final accounts for a business

The annual financial statements of a business must give a true representation of its financial position. This cannot happen if the business is using inaccurate cost information. This can give a misleading picture to possible investors and to all of the stakeholder groups linked to the business.

For comparisons of cost information over time

It will be impossible to make an accurate comparison of costs over different time periods if one or other of those periods was using inaccurate cost data.

Indirect costs: costs that cannot be linked to a specific product or service, e.g. wages paid to administrators.

Problems of allocating costs in given situations

- Semi-variable costs: some costs contain a fixed and a variable element.
 An electricity bill generally consists of a standing charge (FC) and a charge for the amount of electricity used (VC).
- Multi-product businesses: a business that produces a variety of products
 might find it difficult to know exactly how much of the administration
 costs have been incurred by one specific product. In such cases, businesses
 will usually decide to apportion a part of the costs to each product based
 on factors such as factory space used or the number of employees involved.

Types of costs

- Fixed costs (FC): these do not vary with the level of output. Fixed costs
 must be paid regardless of whether any output is produced or not. Examples
 include rent, rates and salaries. A landlord will still want his rent for the
 factory even though production has not taken place.
- Variable costs (VC): these change or vary according to the level of output.
 Examples include raw material costs and the wages of workers paid by piece
- Marginal cost: the change in the total cost of producing one additional item of a product or of providing a service to one extra person.
- Direct costs: these can be linked directly to the making of a specific product or provision or a specific service. Examples include the raw materials used in a product or the direct labour costs (rate paid per unit produced).
- Indirect costs: these costs cannot be attributed to the making of a
 particular product or provision or a particular service. Examples include the
 wages paid to administrators in the business.

Fixed costs: costs that do not vary according to the level of output, e.g. salaries and rent.

Variable costs: costs that vary directly according to the level of output, e.g. raw materials, piece rate payments.

Marginal cost: the cost of producing one additional product, e.g. the cost of the extra raw materials.

Direct costs: costs that can be specifically linked to the production of a particular item, e.g. raw material or direct labour costs.

How an analysis of costs can help in the calculation of payments for resources

Analysis of costs can identify where costs are rising, perhaps unnecessarily. Increases in the cost of raw material might be removed by renegotiating with suppliers, by finding new suppliers or by using a lower standard of material. The decision between labour and capital might be reviewed and a chape in policy might result in more machinery and fewer employees being used. High levels of wastage might be identified as a contributor to cost increases, and therefore appropriate measures would be introduced to reduce this.

How costs can be used to monitor and improve business performance

When costs and profits can be identified accurately within a specific part of business activity, the business might be divided into **cost centres**, each being responsible for their own costs, and **profit centres**, each of which must be able to demonstrate that it is profitable.

The performance of each cost and profit centre can then be measured usually against pre-set targets. Senior management can then take action against a specific part of the business that is judged to be underperforming.

Part of a business that is unable to control its costs or to produce the required level of profit is likely to be required to improve quickly or the management within those sections might be replaced.

Uses of cost information

Cost information for decision making

Whether or not to produce a particular product

Before committing to the production of a product, businesses calculate the likelihood of a profit being made. In order to be profitable, the price that can be charged should be sufficient to cover all the production costs and provide some profit. The **total cost** divided by output gives the **average cost**, which must be lower than the price to be charged if a profit is to be made.

Special order decisions

Occasionally a business receives a one-off order for its products but at a lower price than usual. The order should be accepted if the extra cost of making the additional goods is lower than the price being offered. The business would take into account the additional materials costs, labour costs and transport costs. Fixed costs need not be part of the calculation if they are already covered by the orders from existing customers.

Should a business cease trading?

The relationship between costs and revenue can determine whether or not a business continues to exist. In the long term, revenues must cover costs for a business to survive. Businesses might look at the trend of costs when making such a decision — are they rising or falling? An unprofitable business with a trend of falling costs might be profitable in the long term and should probably continue.

How costs can be used for pricing decisions

In the short term, it is essential that variable costs are covered, but in the longer term, fixed costs must also be covered by the revenue received. Pricing decisions are usually based on average cost i.e. $(FC + VC) \div output$.

For example, a business that produces bicycles has fixed costs of \$200,000 per annum and variable costs per bicycle of \$50. If the business produces and sells 3,000 bicycles each year the average cost per bicycle would be (FC + VC) \div output:

$$\frac{200,000 + 150,000 (50 \times 3,000)}{3,000} = $116.6$$

The desired profit of the business would then be added to determine the price of each bicycle, e.g. if \$15 per bicycle is the desired profit, the price of each bicycle might be rounded to \$130.

Cost centre: a section within a business for which costs can be identified.

Profit centre: a section within a business for which the profit can be calculated.

Breakeven analysis

Determination of the minimum level of production needed to break even

Breakeven analysis is a means of calculating the level of output at which the business makes neither a profit nor a loss and at which total costs equal total revenue. It can also be used to calculate the amount of profit made at a specified level of output.

Production of output above the breakeven level will yield a profit, while production levels below the breakeven level will produce a loss for the business.

The breakeven level of output can be found by calculation or by using a graph.

Contribution method

The information required is the selling price, the variable cost per unit and the total fixed costs.

If the contribution method is used to calculate the breakeven level of output the following formula is used:

contribution per unit (selling price per unit - variable costs per unit)

For example, if the fixed costs for a product are \$28,000, variable costs per unit are \$10 and the selling price is \$17 then the breakeven level of output will be:

$$\frac{\text{total fixed costs (28,000)}}{\text{contribution (17 - 10)}} = 4,000 \text{ units}$$

Contribution: the difference between selling price and variable costs that can then be used as a contribution towards covering fixed costs.

Formulaic method

Breakeven level of output can be calculated using the simple formula of TC = TR.

Total costs = fixed costs + variable costs (variable costs per unit × quantity produced)

Total revenue = price per unit \times quantity sold. As the quantity is still unknown we can call that Q.

Using the same figures as for the contribution method the calculation would be:

TR = TC

$$17Q = 28,000 + 10Q$$

 $17Q - 10Q = 28,000$
 $7Q = 28,000$
 $Q = \frac{28,000}{7}$

O = 4.000

This business will break even when 4,000 bicycles are produced and sold.

By diagram

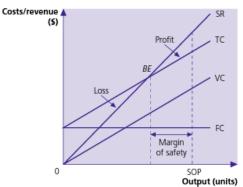


Figure 2 Breakeven

Figure 2 illustrates breakeven. When drawing a breakeven diagram, you need to:

- Give it a title, e.g. 'Breakeven diagram for the Belltyre Bicycle Co. Ltd'.
- Make sure that you label the axes and each of the lines.
- Label the breakeven point.
- Mark the margin of safety (the difference between the achieved level of output and the breakeven level of output when the achieved level of output is higher than the breakeven level of output).
- Check your breakeven point by also using a calculation method.

had

Calculation of the margin of safety Using the examples of bicycles again, if the curre

Using the examples of bicycles again, if the current level of output at the factory was 6,500 bicycles each year, then the margin of safety is 2,500 bicycles. This means that if the sales of bicycles fell by 1,000 units per annum then the business would still be profitable because the fall in sales is within the margin of safety.

Uses of breakeven analysis

- To calculate the level of profit achieved at any given level of output.
- To calculate the level of output that would be required in order to achieve a specific level of profit.
- It allows the calculation of the impact of any changes to price and/or costs on the breakeven level of output.

The limitations of breakeven analysis

- It is assumed that all output is sold when in reality businesses often have unsold finished goods held in stock.
- The accuracy of breakeven calculations is dependent on the accuracy of the cost and revenue information. Inaccurate data will result in an inaccurate breakeven calculation.
- The cost and revenue lines are assumed to be linear when, in reality, they
 might not be. For example, a customer might receive a discount on the price
 if a large order is placed. In addition, as output increases, bulk purchases of
 materials might be made, therefore variable costs might reduce.
- Fixed costs can also increase over time due to increased production levels requiring the purchase of additional equipment.
- Breakeven analysis is only useful for one product. For a multi-product business, breakeven analysis would be very complex to achieve.

Accounting fundamentals

Accounting is concerned with the accurate recording of the financial transactions of a business (financial accounting) and the use of this information in decision making (management accounting). Different stakeholders will be interested in different aspects of accounting.

Income statement

An **income statement** (profit and loss account) records the revenues and expenses of a business over a period of time, usually 1 year, and shows if the business is making a profit or a loss. An income statement has the heading 'Income statement for the year ended DD/MM/YYYY'. It is a financial statement of what has actually happened in the stated period of time. This means that the figures are not estimated; they are fact.

Contents of an income statement

An income statement shows the gross profit and the profit for the year (net profit) and the way in which any profit or loss has been calculated.

Retained earnings (also know as retained profit): the amount left in the business after all expenses and interest and tax obligations have been met.

Asset: something that the business owns or is owed to the business, e.g. equipment, inventory or trade receivables (debtors).

Liability: something that the business owes to another person or business, e.g. overdraft or trade payables (creditors).

The **trading section** shows gross profit. This is calculated by:

	\$	\$
Sales revenue		XXXXXX
Opening inventory	xxxx	
Purchases	XXXX	
	XXXX	
Closing inventory	(xxx)	
Cost of sales		(xxxx)
Gross profit		xxxx

Cost of sales is calculated by adding purchases to opening inventory and subtracting closing inventory.

All other expenses, e.g. transport costs, wages and rent etc., are deducted from gross profit. This gives us the profit for the year (net profit).

	S	\$
Rent	xxxx	
Heat and light	XXX	
Wages	XXXX	
Office expenses	_XXX	(xxxx)
Profit for the year		XXX

The profit for the year is used to cover any interest payments due and any tax on profits that must be paid to the government. Dividends will then be paid to shareholders. The remaining amount is **retained earnings** (retained profit).

The final section of the income statement shows how the profit after tax is shared between the shareholders and retained profit.

	\$
Profit before interest and tax	xxx
Interest	(xx)
Profit (before tax) for the year	xxx
Tax at say 20%	(xxx)
	xxx
Dividends paid to shareholders	xxx
Retained earnings	xxx

The statement of financial position (balance sheet)

A statement of financial position (balance sheet) documents the net worth of a business including a list of the values of the assets and liabilities. The assets and liabilities are recorded as either short term or long term. The balance sheet values are correct on one particular day, usually the last day in the business's financial year. The heading is 'Statement of financial position at DD/MM/YYYY'.

Contents of a statement of financial position (balance sheet)

- Non-current assets (fixed assets): examples include premises, equipment and vehicles that will be in use for more than 1 year.
- Current assets: examples include inventory, trade receivables and cash and cash equivalents — items that are expected to be used within 1 year.
- Non-current liabilities (long-term liabilities): examples include a mortgage or long-term bank loan, which would be repaid over a period in
- Current liabilities: debts to be repaid within 1 year, for example, an overdraft or trade payables.

From this information the net assets (total assets – total liabilities) and the working capital (current assets – current liabilities) of a business can be calculated.

Reserves and equity

- Comprises all permanent share capital (ordinary shares and preferred shares)
 and all reserves
- Revenue reserves are profits retained out of 'normal' trading activities; capital reserves are profits retained from capital transactions and adjustments to the capital structure of the company.

ample	
Statement of financial position (Bala XXX plc at 31 May 2013	
, ,	\$000s
Non-current assets	
premises	xxx
equipment	XXX
vehicles	xxx
	XXXX
Current assets	
inventory	XX
trade receivables	x
cash and cash equivalents	XX
	XX
Total assets	XXXX
Non-current liabilities	
long-term bank loan (repayable 2032)	(xxx)
Current liabilities	
overdraft	(x)
trade payables	(xx
	(xx)
Total liabilities	(xxx)
Net assets	XXX
Equity	
ordinary shares	xxx
preferred shares	XXX
reserves	XXX
	xxx

Ratios

Ratios are a way of using the financial statements of a business to assess and compare its performance either with earlier years or with other businesses in the industry.

Liquidity ratios and how they are used

Liquidity ratios are a measure of the ability of a business to meet its short-term financial obligations and, for example, show if it is able to pay its suppliers for materials.

Current ratio

The **current ratio** is calculated by taking the total of all current assets and comparing them to the total of current liabilities. It is calculated using the formula:

current assets (CA): current liabilities (CL)

or

current assets

current liabilities

The result shows how many times the current assets could cover the current liabilities. If the result is 3, this indicates that for every \$1 of current liabilities there is \$3 of current assets: the ratio is 3:1.

The current ratio figure will vary according to how much credit businesses extend to their customers. A business that deals mainly in cash can safely have a lower current ratio than one that allows all customers to purchase on credit.

Acid test ratio

The **acid test ratio** ignores the value of inventory due to the possibility that these assets might be difficult to turn into cash. The acid test ratio is calculated by:

current assets less inventory: current liabilities

or

current assets less inventory

current liabilities

A low figure may indicate that a business could have difficulty in paying its bills or meeting its short-term debts.

Current ratio: a comparison of the assets that are expected to become cash within 1 year with the liabilities that are due to be paid within 1 year. This measures a business's ability to meet its short-term debts.

Acid test ratio: compares current assets minus inventory (stock) with current liabilities, and measures a business's ability to meet its short-term debts.

Profitability ratios and how they are used

Such ratios can be used to analyse the quality of the profit of a business. The two profitability ratios are the **gross profit margin** and the **net profit margin**. These figures can then be compared with those of previous years and with other businesses. This can determine if the profit is good, acceptable or

other businesses. This can determine if the profit is good, acceptable or unsatisfactory. Profitability ratios give more information than a mere statement of profit in dollars.

Gross profit margin

The formula used to calculate gross profit margin is:

gross profit × 100

Gross profit margin will be affected by changes in the cost of sales and/or the price charged by the business.

Net profit margin

The formula to calculate net profit margin is:

profit for the year sales revenue × 100

Net profit margin will be influenced by any changes to the level of expenses incurred by the business. For example, an increase in wages paid to employees or an increase in the cost of electricity would reduce the net profit margin.

The profitability ratios can show the ability of a business to reward its shareholders by the payment of dividends. Potential lenders are likely to use both liquidity and profitability ratios to judge the ability of the business to make regular repayments (liquidity) and the ability of the business to generate profits (previous profitability ratios).

Practical use of ratio analysis

Comparisons between businesses

A business can compare its ratios with those of other businesses and assess whether or not it is performing as well as other businesses in the same industry. Negative differences might indicate that action must be taken if the business is to remain competitive. It might need to look more closely at the expenses incurred and see if there are any inefficiencies that are causing costs to be higher than necessary.

A lower-than-average gross or net profit margin could be as a result of the price charged by the business being too low.

Comparison with previous years

Information is obtained from a comparison between the ratios from previous years. Net profit margin is used as an indication of how well a business is controlling its expenses. Trends in the profit margins might signify an improving or a worsening business situation.

For example, if the trend showed that the net profit margin was decreasing, then the business might need to take action to control its expenses. The shareholders might look at the final accounts to judge the impact of an investment project on the overall profitability of the business.

To get financial support

When a business is asking for a bank loan it is likely that the lender would look at the liquidity ratios in order to judge the ability of the business to repay the loan.

If a business is seeking additional funds from shareholders, the investors would possibly analyse the profitability ratios as they would be looking for a reasonable return on their investment.

Limitations of accounting ratios

- They are based on past information and might not be a good indicator of future performance.
- The interpretation of ratios can be influenced because published accounts give the detail required by law but avoid information that is not required and which might help a business's rivals.
- Ratio analysis is a quantitative technique and other qualitative factors might also need to be considered.
- Ratios measure an outcome of business performance but do not convey information about the possible causes or solutions to any potential problems.
- The use of different accounting techniques can make comparisons between businesses difficult. Different techniques mean that you cannot compare like with like.
- The published accounts are an overview of a whole business and do not reveal departmental performance.
- The statement of financial position (balance sheet) records the value of assets and liabilities on a particular day, but those values tend to vary throughout the year.
- Other factors, such as the relative size of a business, can make the comparisons difficult or of less value for reasons such as the ability to bulk buy or not.

Main users of accounts

Identification of the information that stakeholder groups might seek

The owners of a business

Sole traders and partnerships will use their financial statement to calculate the amount of tax that is due to be paid, as well as for checking that they have been running cost effectively.

The shareholders of a private limited company or a public limited company will use the final accounts to see the profit that has been made and to assess the likelihood of them receiving a dividend on their investment. They can also assess the efficiency of the management team in managing the business.

Lenders of finance

It is usual for a potential lender to ask to see the financial statements of a business in order to assess its suitability for a loan. They would want to assess the ability of the borrower to repay the loan in the time allocated. The lender would look for evidence, most probably the cash-flow forecast and income statement, that the potential borrower manages all financial aspects of the business efficiently.

The government

The government will want to assess the amount of tax due to be paid by the business. The financial statements might also be used to ensure that the business is worthy of an investment if the government is considering awarding it a grant. It is likely that the income statement would be of most interest to a government.

Customers

Customers are reassured if they can see that a business is going to survive. People might be concerned about buying goods from a business that appears to be on the edge of financial disaster.

Local community

Locals seeing an expanding business might welcome some reassurance that employment will remain in the area and, hopefully, that more workers might be required in the future.

The managers of the business

The managers of a business are likely to use the income statement and the statement of financial position (balance sheet) to assess the performance of the

business. They are likely to compare the performance of their business with that of other businesses in the industry. Their aim will be to outperform the industry average. Managers might fight to reduce costs if they can see that other similar businesses are more effective is that area.

Suppliers

Suppliers will use final accounts to assess the liquidity of businesses seeking credit, i.e. to see if a business is in a position to pay for any goods or services supplied to it.

The limitations of published accounts

- Published accounts cannot be taken as an accurate predictor of the future because they are based on past data and future trends might be very different.
- The financial statements contain quantitative information and not qualitative aspects of the business. Information about the motivational levels of the employees cannot be deduced from financial statements.
- Window dressing of the accounts might present an unrealistically positive set of figures. For example, a business might sell off some assets so that it appears to have a lot of cash in the business.
- A weak performance in one department might be masked by an outstanding financial performance in another department. The final accounts give an overview of the business as a whole.

Distinction between financial and management accounting

Financial accountants keep accurate records of all financial transactions within the business. They are also responsible for producing the final accounts to portray a 'true and fair' picture of the financial performance of the business and to provide the financial information to the shareholders and the managers of the business.

Management accountants are users of financial information as a basis for future business decisions. The information might be used for monitoring and evaluation purposes.

Window dressing: presenting accounts in such a way that they seem more attractive to users.

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