

Budgets

When you go to university or move away from home to start your first job, you will be faced with the task of organising your own money. You will need to ensure that you have sufficient money to cover the cost of your lifestyle. This chapter looks at the various types of budget and how they are used. It also explains how to analyse variance, which is the difference between budgeted figures and the actual figures achieved.

What is a budget?

A budget is an estimate or forecast of the income (revenue) and expenditure (costs) of a business for a given period of time (often 1 year). Budgets have the following functions:

- They are used to measure success in terms of to what extent objectives or targets are being met.
- They can be used to control expenditure or to ensure production is on target. If a business sees that its targets are unlikely to be met, then it can take remedial action.
- They provide a sense of direction for everyone in a business. Knowing what the targets for the business are enables the employees to be involved and to understand what is required. In several car assembly plants, the target for the production of cars is clearly displayed for all to see. Lights flash when the level of production is below the target rate.
- They can be used as the basis for ‘management by exception’ — dealing with areas of the business that fail to reach the budgets or targets set.
- They allow for delegation to departments within a business. Giving individuals or departments the responsibility for their own budgets or targets provides a high sense of involvement and responsibility. These are seen by theorists as important in motivating the workforce.
- They can be used to encourage efficiency within a business and thereby ensure targets are met. If targets are not being met, the business is likely to look for ways in which it can get on target. It is more likely that methods of increasing efficiency, improving output or reducing costs will be found if there is good reason to do so.

Setting budgets

It is important to understand that budgets are a *prediction* or *forecast*. Circumstances can change quickly, in a way that means the budget set is no longer realistic. For example, the budget set by British Airways for its sales

revenue during September 2001 was not achieved because sales fell massively overnight as a result of the 9/11 attack. No one in BA could have predicted such an event and therefore a calculation of how budgeted revenue differed from actual receipts would serve little purpose.

Limitations of budgets

Firms should be aware of several dangers and limitations when setting budgets:

- If the budget is unrealistic, it may demotivate employees.
- Changes in circumstances can make the budget set unrealistic, as described above.
- A sense of insecurity may develop if there is a threat of redundancy when targets are not met. According to Maslow, security is a significant motivational factor.
- If the budget is imposed by senior managers, it needs to be set in an informed manner. It is important for managers to know the needs of a particular department in order to set an accurate budget.
- Setting budgets can be a costly and time-consuming process.
- If the budget is for a new business, there will be no previous records to help gauge what is reasonable. This initial budget may therefore be of limited value.

What makes a good budget?

A good budget has the following characteristics:

- It fits the objectives of the business
- It balances the needs of the business and its employees in order to avoid stress and demotivation.
- It encourages the business to progress and yet remains realistic.
- It is continually monitored both to check that targets are being met and to allow for alterations to the budget as circumstances in the business environment change.

Variance

The **variance** is the difference between the predicted or budgeted figure and the actual figure achieved. Measuring this difference enables a business to work out by how much it has exceeded or fallen short of its budget.

Table 23.1 shows the budget for the Penkridge Café for December 2007. Using the information in the table:

$$\begin{aligned} & \text{variance for sales revenue from teas and coffees} \\ &= \text{actual level of sales} - \text{forecast level of sales} \\ &= £2,200 - £2,000 = +£200 \end{aligned}$$

The figure for the variance is positive because it is above the prediction. It shows that there is more revenue than expected coming into the business.

KEY TERM

variance:
the difference between the predicted or budgeted figure and the actual figure achieved

Table 23.1 Budget for the Penkridge Café, December 2007

Item	Forecast (£)	Actual (£)	Variance +/- (£)	Positive/negative
Sales revenue				
Teas and coffees	2,000	2,200	+200	Positive
Soft drinks	400	300	-100	Negative
Food	4,000	4,500	+500	Positive
Total sales revenue	6,400	7,000	+600	Positive
Costs				
Wages	1,000	1,050	-50	Negative
Rent	800	800	0	–
Heating and lighting	100	110	-10	Negative
Advertising	50	50	0	–
Cost of food and drinks	1,900	2,010	-110	Negative
Total costs	3,850	4,020	-170	Negative
Profit	2,550	2,980	+430	Positive

Variance as a percentage

There are occasions when the variance is shown as a percentage. To calculate this, the variance is divided by the predicted figure. For example, using the information in Table 23.1:

$$\text{total sales variance} = \frac{600}{6,400} \times 100 = +9.38\% \text{ (positive)}$$

$$\text{total costs variance} = \frac{170}{3,850} \times 100 = +4.42\% \text{ (negative)}$$

$$\text{profit variance} = \frac{430}{2,550} \times 100 = +16.86\% \text{ (positive)}$$

Using a percentage figure makes it easier to compare the amount of variance between different elements of the budget.

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It is important to be careful when commenting on the value of the variance. It is said to be positive when the *revenue* is *higher* than the forecast, as this is good news for a business. However, it is also positive when the *costs* are *lower* than the forecast. This is because with lower costs, less money is going out of the business. Do not just look for a minus or a plus sign.

Analysing the variance

It is important not to jump to the wrong conclusion. A negative variance is not always bad. If sales are higher than expected, which is positive, there will be an increase in the costs of buying the raw materials to produce the goods for sale. Although this extra cost will cause a negative variance, the reason for the increase in costs is positive.

A positive variance must also be treated with caution. If sales are lower than expected, which is negative, the costs associated with supplying these sales will be lower, which will appear as a positive variance. However, the cause of the decrease in costs is lower sales, which is not good for the business.

An increase in sales will appear as a positive variance. However, this increase needs to be analysed to ensure it is due to the effort of the business. An increase in sales revenue does not necessarily mean that the business has sold more goods. The increase may be due to inflation. Similarly, the increase in sales revenue could be due to the fact that the government has increased the tax on products, which the business will not receive.

By looking again at Table 23.1, it is possible to build up a clear picture of what is happening to the Penkridge Café.

- It is December, so there are probably many people out shopping and therefore wanting refreshment.
- High sales of tea and coffee may be explained by the weather. It could be that the temperature was lower than expected and therefore more teas and coffees were sold.
- There is further evidence that this is the case, given that the sales of soft (cold) drinks have a negative variance.
- Another clue is the negative variance for heating and lighting costs. It could be that the café stayed open longer, or that more heating was needed because of the weather.
- The variance for rent and advertising is zero because this expenditure is fixed.
- The expenditure on advertising may be a reason why the sales are higher than budgeted.
- The increase in the cost of food and drinks may not be the same as the increase in the amount of food and drinks sold because of the advantages of economies of scale (buying in bulk).



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It is always worth considering whether the budget set was realistic. An apparently good performance by the business may be due, in part, to a pessimistic prediction for sales. Similarly, when the variance is negative it could be due to an over-optimistic budget. Knowing how the budget was arrived at will help when the analysis is undertaken.

YOUR TURN

Questions

Time allowed: 30 minutes

- 1 Why is it important for a business to set a budget? (5 marks)
 - 2 Explain the term 'variance'. (4 marks)
 - 3 Explain **three** problems facing a business when setting a budget. (6 marks)
 - 4 Using Table 23.1, calculate the variance for wages as a percentage. (3 marks)
 - 5 Comment on your answer to question 4. (6 marks)
 - 6 Using the following information, calculate the variance and state whether it is positive or negative: budgeted costs £100,000; actual costs £105,000. (3 marks)
- (27 marks)**

Case study

Time allowed: 30 minutes

Wembley Stadium

The new Wembley Stadium, now completed, is the largest stadium of its type in the world. Its seating capacity is 90,000. It is hoped the stadium will be used for a wide range of sporting fixtures as well as other events such as concerts. Its special feature, the arch, which weighs a massive 1,650 tonnes, is designed to hold a sliding roof in place.



The project started in 1995 and by 2002 the old site had been demolished. By 2004, there were 1,500 construction workers on the site.

The total costs are expected to be £757 million. These comprise:

Purchasing the land and design fees	£120m
Building the stadium	£352m
Demolishing the old site and fitting the new	£99m
Infrastructure improvements	£21m
Finance and management costs	£165m
Total cost	£757m

However, several pundits suggest that the true cost will be much higher and may reach as much as £900 million. History supports the view that overspends are the norm. The Millennium Stadium in Cardiff suffered a serious underestimate of the final costs, which led to an overspend of between £26 and £70 million, depending on which report is read. The Scottish Parliament buildings and the Channel Tunnel were also both well over budget. Stadiums finished both on time and on budget are rarities.

Sources: www.wembleystadium.com; Simon Inglis, 'The New Wembley', *The Times*, 6 January 2006

Answer all questions.

- 1 Suggest some of the problems that the architects, Foster and Partners, and the builders, Multiplex Constructions (UK) Ltd, may have had in fixing the budget for building the new Wembley Stadium. (6 marks)
 - 2 Using the information in the case study, calculate the possible variance if the costs do reach £900 million. (4 marks)
 - 3 Discuss whether this possible variance is acceptable. (14 marks)
- (24 marks)**

Group task

Using desk research, attempt to find the actual cost of building Wembley Stadium.

CHAPTER 24

Cash flow

Most firms that go out of business do so because of cash-flow problems rather than because they are not making a profit. Firms can carry on in business while making losses, but they cannot continue to trade if they are unable to pay their wages and suppliers because of a lack of cash. Cash-flow problems arise if there is insufficient money flowing into a business in relation to the amount that is flowing out in the form of payments for bills.

The example of MG Rover

In April 2005, it became clear that all was not well at MG Rover. A shortage of cash meant that the firm was forced to stop producing cars. There had not been enough money to pay the company's suppliers; nor was there enough money to pay its workers. Talks with a possible buyer or partner, Shanghai Automotive Industry Corporation (SAIC), broke down. The government agreed to provide a loan of £6.5 million to pay the staff for another week, but this was not the answer for a business that had creditors to the value of £1.4 billion. Some time later, MG Rover was sold to another Chinese carmaker, Nanjing, for £53 million.

All businesses have to ensure that they have enough money (working capital) to meet their daily bills — something MG Rover could not do.

Cash flow versus profit

An important distinction should be made between cash flow and profit. *Cash flow* is concerned with the day-to-day finances of an organisation. Ensuring that there are sufficient funds to pay the wages and the rent is all about having enough cash. Once the process of producing the goods has taken place, *profit* becomes a factor. However, it is difficult to make a profit if there is insufficient cash to buy the raw materials to enable production to take place, and a profit will only be made once the products have been sold.

Cash-flow forecasts

A **cash-flow forecast** is a prediction of the values of money that are coming in (inflows) and going out (outflows) of a business. It is important to remember that it is just a forecast and therefore may not be accurate as circumstances change. The business environment (see Chapters 12–14) can



affect both cash inflows and outflows. For example, a rise in interest rates may reduce sales and therefore reduce the flow of cash into a business. The rise may also increase the payments on any loans that the business has, which will in turn increase the level of outflows.

Elements of a cash-flow forecast

The parts of a cash-flow forecast are as follows.

KEY TERMS

cash-flow forecast: prediction of cash movements in and out of a business

cash inflows: money coming into a business, usually in the form of revenue

cash outflows: money leaving a business to pay day-to-day bills

Cash inflow

Cash inflows represent the income that comes into a business, usually in the form of sales revenue (see Figure 24.1).

Cash outflow

Cash outflows represent the money that goes out of a business to pay for the costs of running the business, such as the materials needed to make the goods.

Net cash flow

This is found by deducting cash outflows from cash inflows. The result can be either positive or negative. *Positive cash flow* occurs when the value of cash inflows is higher than the value of cash outflows, as shown in Table 24.1. *Negative cash flow* occurs when the value of the outflows is higher than the value of the inflows. In Table 24.2, the net cash flow equals £110,000 – £130,000 = –£20,000.

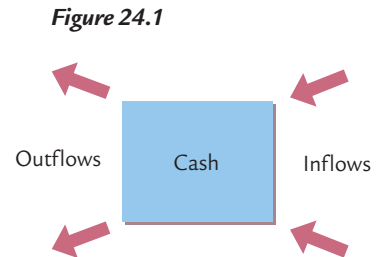


Table 24.1 Positive cash flow

January 2007	£	£
Inflows		
Sales revenue	100,000	
Total cash inflows		100,000 (addition of all inflows)
Outflows		
Materials	40,000	
Wages	50,000	
Total cash outflows		90,000 (addition of all outflows)
Net cash flow		10,000 (inflows – outflows)

Table 24.2 Negative cash flow

January 2007	£	£
Inflows		
Sales revenue	110,000	
Total cash inflows		110,000 (addition of all inflows)
Outflows		
Materials	80,000	
Wages	50,000	
Total cash outflows		130,000 (addition of all outflows)
Net cash flow		(20,000) (inflows – outflows)

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When the answer to a cash-flow calculation is negative (i.e. outflows are higher than inflows), you can show this either by using a minus sign or by putting the figure in brackets, as in Table 24.2. As long as it is clear to the examiner what you have done, either is acceptable.

Opening balance

This represents the amount of money a business starts with at a given point in time, usually the start of a financial year or the start of the month. The opening balance of a cash-flow forecast for a new business represents any money that the business has before it begins trading. This usually takes the form of a loan.

Closing balance

This is the amount of money at the end of a given period — either the end of the financial year or the end of the month. The closing balance for January will become the opening balance for February and so on. Using the example in Table 24.3, the closing balance for January is –£150 and therefore the opening balance for February is also –£150.

Table 24.3 Cash-flow forecast (£) for Bethany and Lauren’s Cards

Item	January	February	March	April	May	June
Opening balance	1,500	(150)	(350)	(150)	250	900
Sales revenue	2,000	4,000	5,500	6,500	8,000	8,500
Bank loan	0	0	0	0	0	0
Total inflows	3,500	3,850	5,150	6,350	8,250	9,400
Raw materials	2,000	2,500	3,500	4,000	4,750	5,000
Labour costs	1,000	1,050	1,200	1,500	2,000	2,150
Rent	400	400	400	400	400	400
Gas and electricity	250	250	200	200	200	200
Total outflows	3,650	4,200	5,300	6,100	7,350	7,750
Net cash flow	(150)	(350)	(150)	250	900	1,650
Closing balance	(150)	(350)	(150)	250	900	1,650

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The presentation of cash-flow forecasts and statements varies. Some, such as Table 24.3, include the opening balance as part of the cash inflows, in which case the net cash-flow figure will be the same as the closing balance. Others calculate the net cash flow by deducting the outflows from the inflows and *then* adding or subtracting the opening balance to work out the closing balance.

A **cash-flow statement** is a record of the actual amounts of inflows and outflows. This can be compared with the forecast.

The value of cash-flow forecasts

A cash-flow forecast helps a business to predict when, if at all, it may encounter a shortage of cash, shown by a negative cash flow. This means that the business can warn its bank that it might need to borrow some money in the form of an overdraft to cover the period when there is insufficient cash to meet its day-to-day costs.

KEY TERM

cash-flow statement: a record of the actual cash movements of a business over a specific period

The forecast can also be used as a means of control for the business. If outflows are growing faster than forecast, it may require remedial action to resolve the situation.

What causes cash-flow problems?

Cash-flow problems have the following possible causes.

Too much stock

Overproducing means that the levels of stock start to pile up. This stock has been paid for, in the sense that the raw materials have been bought, wages have been paid to workers to transform the raw materials into finished goods, and other bills, such as utilities, have also been paid. However, until the stock is sold, the business is not gaining any revenue. As a consequence, there has been a large outflow of cash with no inflow.

Businesses are sometimes tempted to buy in more stock than they need, in order to make savings by buying in bulk (economies of scale). However, this may simply tie up cash in stock.

Poor (late) payers

In order to gain business, it may have been part of a firm's marketing strategy to offer buyers credit terms (e.g. giving them a month to pay). If debtors are slow to pay, the business may need to borrow cash in order to buy more materials and pay wages.

Poor economic conditions

If there is high unemployment or rates of interest are high, demand for goods and services will be lower, which in turn will reduce the likely revenues for businesses.

Seasonal demand

For businesses that rely on selling seasonal goods and services, cash-flow problems are more likely when their goods are out of season. During this time, the business will still be incurring costs such as rent, rates and some wages, and yet will have little revenue flowing into it.

Methods of improving the cash flow of a business

A firm's cash flow may be improved in several ways.

Working capital restructuring

The working capital of a business consists of cash, stock and debtors (see Chapter 4). Changing the amount of stock will alter the amount of cash available to the business.

Sainsbury's found that it had an excess amount of stock in its warehouses, some of which was out of date. Consequently, it had to change its storage and distribution methods in order to tie up less money in stock.



Increasing sales

By increasing sales, a business will increase the amount of cash inflows. Although there will be some increase in outflows to pay for the necessary raw materials, the net cash flow should improve.

Selling off stock at sale prices

Many retail outlets, knowing that some of their stock is about to reach its sell-by date, will offer these items at drastically reduced prices in order to bring in some revenue rather than none at all.

Factoring

A business can sell its debts to a factoring company. If business A is owed money by its **debtors**, but has yet to be paid, this may create a cash-flow problem, especially if business A has already paid for raw materials to make the goods that it has sold. The factoring company gives business A a percentage of the value of the debts (as much as 90%) and keeps the other 10% as a charge for giving business A the money now. It is then up to the factoring company to get the debtors to pay as quickly as possible to enable the factoring company to make its money. By getting a prompt payment from the factoring company, business A will have money flowing into its business to help meet its bills and improve its cash flow.

KEY TERM

debtors: people who owe a business money

Leaseback

A business can sell some of its assets, such as its land or a factory, and then lease them back by paying rent. This brings a substantial injection of money into the business (inflow) but creates a regular outflow in the form of the lease charge. This is a drastic step as it involves the business selling an asset that could have been used as security to borrow money. Nevertheless, in an emergency, many businesses have taken this step. Several football clubs, when cash flow has become a serious problem, have sold their ground and then leased it back.

Overdrafts

An overdraft is a short-term solution to a negative cash-flow problem. A bank lends a business money to cover its temporary negative cash flow and enable it to meet its day-to-day bills. The overdraft is helpful because it can be flexible in terms of the amount borrowed and the length of time for which the loan is required.

Reducing credit periods

By reducing the credit time offered to customers, a business should receive its revenue earlier. However, there is a risk that the customers may go to a rival business that offers a longer credit period.

Buying less stock and operating just-in-time

Although having less stock helps to reduce the amount of cash tied up in stock, it may create problems in terms of meeting customers' needs. Organising a just-in-time process can also be expensive initially (see Chapter 40).

Further sources

Company reports, which can be obtained direct from plc companies or from the *Financial Times*

YOUR TURN

Questions

Time allowed: 20 minutes

- 1 State **three** sources of cash outflows. (3 marks)
- 2 State **three** possible causes of a negative cash flow. (3 marks)
- 3 Explain how selling off stock will improve the cash flow of a business. (5 marks)
- 4 From Table 24.4, calculate the following. Show your working.
 - a total expenditure for February
 - b net cash inflow for March
 - c opening balance for April (6 marks)

(17 marks)

Item	January	February	March	April
Opening balance	50			
Sales revenue	100	150	175	
Total cash inflows				
Wages	25	25	45	
Interest	10	10	10	
Fuel	5	5	10	
Total cash outflows				
Net cash inflow				
Closing balance				

Table 24.4
Cash-flow statement (£000)

Case study

Time allowed: 25 minutes

Red Letter Days

Rachel Elnaugh founded Red Letter Days in 1989. The business sold vouchers for exciting adventure days, including driving expensive sports cars, parachuting and hot-air ballooning, to name but a few.

The turnover of the business reached over £20 million, which, having been achieved over such a short time, brought Rachel Elnaugh to the attention of the business press. She was seen as the modern entrepreneur. Such was her success that the BBC invited her to join a television programme, *Dragons' Den*, which allowed people with new business ideas to put their case and possibly receive financial backing.



By August 2005, Red Letter Days had gone into liquidation, owing £5 million to a range of suppliers of the adventure days. Cash-flow problems were cited as the main cause of the demise of a company that had been so successful that it floated on the stock exchange only a few years after it started.

As a result of the collapse, many suppliers of the adventure days were left with out-standing debts that Red Letter Days had not paid. Everyman Motor Racing suffered: by July 2005, it was owed £150,000. Headcorn Parachute Club was also owed money, as was Marine Connection, responsible for the Adopt a Dolphin charity. Although Marine Connection was only owed £15,000, this was sufficient debt to jeopardise the conservation project.

Answer all questions.

- 1** Explain the likely causes of the cash-flow problems experienced by Red Letter Days. *(6 marks)*
 - 2** Evaluate the most appropriate methods of improving the company's cash flow. *(12 marks)*
- (18 marks)***