

## Cash-flow forecasting

### Introduction

**Cash flow** is the sum of cash inflows to an organisation minus the sum of cash outflows, over a given time period.

**Cash inflows** represent receipts of cash and may arise from the sale of products/services, payment by debtors, loans received, rent charged, sale of assets and interest received.

**Cash outflows** represent payments of cash and typically arise from the purchase of raw materials and stock, payments to creditors, loans repaid or given, rental payments, purchase of assets and interest payments.

### The difference between cash and profit

Profit is calculated by subtracting expenditure from revenue. It might appear that a profitable firm will be cash rich, but this is not necessarily true. Profitable firms may be short of cash for the following reasons:

- The firm has built up its stock levels, and so its wealth lies in assets rather than cash. These stocks may not be saleable in the short term.
- The firm's sales are on credit — in this case, its wealth will be in debtors, rather than cash. The firm may have agreed with its debtors that they need not pay for a given time period (this may damage cash flow, but it will help marketing).
- Profit may have been used to pay dividends to shareholders or repay long-term loans.
- The company may have purchased fixed assets. This will involve a large outflow of cash, but in the accounts the 'cost' of these fixed assets is spread over a number of years. Thus in the year in which the fixed assets are purchased, the recorded 'costs' will be much lower than the actual loss of cash, leading to a potential crisis. (In practice, major purchases of fixed assets are often supported by loans that are repaid in future years.)

### Liquidity v. profitability

**In the long term, a business must make profit in order to survive.** However, even profitable businesses may face difficulties if they do not plan their cash flow carefully. For example, a firm purchasing assets may expect to make profit from these assets in the future, but cash payments for the assets could lead to them being unable to pay suppliers or workers. This could lead to **liquidation**, with the firm being forced to close and sell its assets in order to make these cash payments.

**Liquidity** is the ability to convert an asset into any form without loss or delay. The most liquid asset that a business can possess is cash. The working capital of a business (current assets minus current liabilities) provides an indication of the firm's scope to pay its short-term debts, as it includes the most liquid assets. All firms, however profitable, must manage their cash and their working capital (which includes those items that can be converted into cash most easily) to guarantee their survival. Thus **in the short term, a business must manage its cash flow in order to remain liquid.**

The need for liquidity must be balanced against the requirement to make profit. Cash supports survival, but it does not create profit in the way that fixed assets such as

machinery might. Thus excessive cash holdings can be as undesirable as a shortage of cash. Firms will plan their cash holdings by compiling a **cash-flow forecast**. This is a projection that shows how the firm believes its cash holdings will change over the next  $x$  months.

## The cash-flow forecast

A simplified cash-flow forecast is set out below.

### Cash-flow forecast for J. Sperryman, January to June 200X

	January	February	March	April	May	June
Opening balance	1,000	3,400	3,700	2,700	(200)	(100)
Sales income	7,000	5,200	4,800	4,000	5,000	6,600
<b>Total inflows</b>	8,000	8,600	8,500	6,700	4,800	6,500
Materials	3,000	3,300	3,600	3,600	3,300	3,300
Wages	1,600	1,600	1,600	1,600	1,600	1,600
Other costs	0	0	600	1,700	0	200
<b>Total outflows</b>	4,600	4,900	5,800	6,900	4,900	5,100
<i>Net monthly balance</i>	2,400	300	(1,000)	(2,900)	100	1,500
Closing balance	3,400	3,700	2,700	(200)	(100)	1,400

## Purposes of the cash-flow forecast

There are three main reasons for cash-flow forecasts:

- to anticipate potential shortages of cash
- to examine and possibly adjust the timings of receipts and payments, in order to avoid problems
- to arrange financial support (e.g. an overdraft) where problems are forecast

Thus in the above example, it can be seen that in April and May the firm expects to be short of cash. With this knowledge the firm could investigate ways of improving sales in April, or find a way of delaying the high level of 'other costs' in April. If this is not possible, the forecast could be presented as evidence that the business requires a bank overdraft to overcome its temporary cash-flow problem. (It is likely that the bank manager would want to see an annual projection before agreeing to this, as the firm's sales fluctuate monthly.)

## Problems of cash-flow forecasting

Cash-flow forecasts are an attempt to predict the future, so their accuracy cannot be guaranteed. Potential problems include:

- **Inaccurate market research** The research may lack validity (e.g. sampling errors or interviewer bias), leading to an incorrect sales forecast.
- **Changing tastes** Fashion or technologically advanced markets witness frequent change.
- **Competitors** Their actions cannot be predicted but will affect your level of success.
- **Economic changes** Changes in inflation, economic growth and unemployment levels can mean that estimates of both sales revenue and costs prove to be inaccurate.
- **Uncertainty** Estimates of costs for new projects are often mistaken because the organisation has no previous experience. Even an experienced organisation such as Disney failed to predict the level of demand and the costs involved in setting up Eurodisney.

## Cash-flow forecasting

Steve Godden had just commenced production. After expenditure on equipment, Steve was left with an opening balance of £30,000 from his start-up capital.

Steve's first action on 1 January had been to purchase the lease on a property for £25,000, with the annual rental of £12,000 per annum being paid in two equal instalments in January and July.

Monthly costs were calculated as £5,000

wages and £8,500 for raw materials. Administration was forecast at £2,800 per month. Utilities were estimated to cost £2,000 per quarter, payable in March, June, September and December.

Cash sales were expected to be £15,000 per month, except for sales of £3,000 in January, £10,000 in February and £12,000 in March.

Credit sales would be £5,000 per month, but payment to the firm would take place exactly one month after the sales were recorded.

### Cash-flow forecast for Steve Godden, January to June 200X

	January	February	March	April	May	June
Opening balance	30,000					
Cash sales				15,000	15,000	15,000
Credit sales	0	5,000	5,000			
<b>Monthly inflows</b>						
Raw materials, wages and administration	16,300	16,300	16,300	16,300	16,300	16,300
Utilities	0	0	2,000	0	0	2,000
Purchase of lease	25,000	0	0	0	0	0
Rent		0	0	0	0	0
<b>Monthly outflows</b>						
<i>Net monthly balance</i>						
Closing balance						

### Exercise 40 marks

- Complete the blank spaces in the above cash-flow forecast. (6 marks)
- Based on your answer to question (a), indicate whether Steve's cash flow is likely to improve or worsen from July to December. (4 marks)
- Explain two ways in which Steve might improve his cash flow. (6 marks)
- Analyse the reasons why Steve would have completed the cash-flow forecast. (6 marks)
- Discuss the reasons why the cash-flow forecast may not be useful to Steve's business. (6 marks)
- Steve has approached your bank with a request for an overdraft. Based on your calculations, would you provide him with an overdraft? (12 marks)

