Malcolm Secrett

# brilliant Budgets and Forecasts

Your practical guide to preparing and presenting financial information

Free templates available online


# budgets and forecasts

The model as it now stands will calculate the total *capital* and *overhead* costs, and their combined total. But there won't be any *direct* costs included yet, because they are derived by multiplying the *direct cost/item* by the *product volumes* – and these haven't yet been entered.

It would be fairly easy to enter the *product volume* figures from the *sales* forecast into the *budget* forecast. But that's the hard way, and of course they would then need to be re-entered every time the sales forecast changed. And sales forecasts have a habit of changing!

Clearly it would be better to link the product volume figures in the sales forecast directly to the budget forecast.

*Linking*

**brilliant definition**

Linking simply means putting in one cell the address of another so that the contents of the linked cell are displayed.

Three kinds of links can be created:

- *Same worksheet* – where one cell on a worksheet is linked to another cell on the same worksheet.
- *Multiple worksheet* – where a cell on one worksheet refers to a cell on another worksheet on the same Excel file. There can be up to 255 worksheets in a single Excel file.
- *File* – where a cell on one Excel file refers to a cell on a different Excel file.

In all cases a link can be created by entering an equals symbol, then placing the mouse cursor in the cell to which the link is wanted – whether on the same worksheet, a separate worksheet or a different file. Of course to use this method for a link to another file, the other file needs to be open.

Or, to enter a link 'manually', the syntax for linking to a cell address B45 is:

- Same worksheet: =B45
- Multiple worksheet where the linked worksheet is named SALES on its tab: ='SALES'!B45

- Another spreadsheet called Salesforecast.xls on its tab named SALES
  ='[Salesforecast.xls]SALES'!B45

For this illustration we'll use the multiple worksheet approach – which in any case is the way in which the example models are arranged, with a worksheet tab for each of the examples.

*Steps for Example 4.8*

1. You can either make these additions to your Example 4.7 spreadsheet, or create a new worksheet named **Ex48**. The downloaded examples uses a new Ex48 worksheet.
2. *Linking to Volume Product 1* – place the cursor at B7 on Ex48 and enter an equals sign, click on the worksheet tab for Ex46, then select B6 – which is the Volume Product 1 for January and hit enter. The link ='Ex46'!B6 will now be in B7 of Ex48 and it will be displaying the January Volume Product 1 figure of 100.
3. *Linking to Volume Product 2* – place the cursor at B8 on Ex48 and enter an equals sign, click on the worksheet tab for Ex46, then select B7 – which is the Volume Product 2 for January and hit enter. The link ='Ex46'!B7 will now be in B8 of Ex48 and it will be displaying the January Volume Product 2 figure of 50.
4. Copy the formulae in B7 and B8 through to December. Reminder – there are many ways to copy, you can select B7 and B8 with the mouse then drag the square at the bottom right over to column N. Alternatively, select B7, hold the shift key and use the down arrow to include B8 in the selection, use Ctrl+Insert to copy, then holding the shift key down use the right arrow to copy across to column M.
5. *Linking Value* – place the cursor at B12 on Ex48 and enter an equals sign, click on the worksheet tab for Ex46, then select B19 – which is the Total Value for January and hit enter. The link ='Ex46'!B19 will now be in B12 of Ex48 and it will be displaying the January total value figure of 4250.

The total cost (row 43) on the Ex48 budget forecast now includes the direct costs, and any changes to the product volumes on the sales forecast will be automatically picked up by the budget forecast.

Linking will be used extensively in the cash flow forecast that follows on page 86.

| | A | B | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|---|
| 1 | FILE:Ex48.xls | WIDGET | MAKERS | LTD | | | | | |
| 2 | <DATE> | Budget Forecast | | | | | | | |
| 3 | <TIME> | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug |
| 6 | SALES | | | | | | | | |
| 7 | Volume – Product 1 | 100 | 105 | 110 | 115 | 120 | 126 | 132 | 138 |
| 8 | Volume – Product 2 | 50 | 55 | 61 | 66 | 72 | 79 | 86 | 94 |
| 9 | (Spare) | | | | | | | | |
| 10 | Total | 150 | 160 | 170 | 181 | 192 | 205 | 218 | 232 |
| 11 | | | | | | | | | |
| 12 | Value | 4,250 | 4,550 | 4,850 | 5,185 | 5,520 | 5,915 | 6,310 | 6,470 |
| 13 | | | | | | | | | |
| 14 | CAPITAL COSTS | | | | | | | | |
| 15 | Vehicles | | | 15,000 | | | | | |
| 16 | Machinery | | | | | 5,000 | | | |
| 17 | (Spare) | | | | | | | | |
| 18 | Total (A) | 0 | 0 | 15,000 | 0 | 5,000 | 0 | 0 | 0 |
| 19 | | | | | | | | | |
| 20 | DIRECT COSTS / ITEM | | | | | | | | |
| 21 | Product 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 22 | Product 2 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 23 | (Spare) | | | | | | | | |
| 24 | | | | | | | | | |
| 25 | DIRECT COSTS | | | | | | | | |
| 26 | (Vol x Cost / Item) | | | | | | | | |
| 27 | Product 1 | 500 | 525 | 550 | 575 | 600 | 630 | 660 | 690 |
| 28 | Product 2 | 300 | 330 | 360 | 396 | 432 | 474 | 516 | 554 |
| 29 | (Spare) | | | | | | | | |
| 30 | Total (B) | 800 | 855 | 910 | 971 | 1032 | 1104 | 1176 | 1254 |
| 31 | | | | | | | | | |
| 32 | OVERHEADS | | | | | | | | |
| 33 | Accommodation | 135 | 135 | 135 | 135 | 135 | 135 | 135 | 135 |
| 34 | Electricity | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 |
| 35 | Gas | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| 36 | Telephone | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| 37 | Salaries | 3,500 | 3,500 | 3,500 | 3,500 | 3,500 | 3,500 | 3,500 | 3,500 |
| 38 | (Spare) | | | | | | | | |
| 39 | Total (C) | 3,893 | 3,893 | 3,893 | 3,893 | 3,893 | 3,893 | 3,893 | 3,893 |
| 40 | | | | | | | | | |
| 41 | TOTAL COSTS | | | | | | | | |
| 42 | ( A + B + C ) | | | | | | | | |
| 43 | Total (D) | 4,693 | 4,748 | 19,803 | 4,864 | 9,925 | 4,997 | 5,069 | 5,147 |

**Example 4.8 (Ex48)** The budget linked to the sales forecast

## Cash flow forecast example

This example:

- consolidates the use of linking;
- shows how cash flow can be related to the budget forecast.

*Steps for Example 4.9*

1 Create a new worksheet **Ex49** for a 12-month period, including year totals.

2 Add the row headings given below, justify them as shown, and set the width of column A to fit.

Now, because cash flow is wholly dependent, in this case, on the budget, the cash flow figures can be picked up directly from it using links. But there are timing differences or offsets to take account of, and which, for this example, assumptions need to be made.

*Sales cash flow timing assumption*

Cash from sales is received one month *after* the sale. That is, the cash from January sales in the budget will be shown as received in February on the cash flow, and so on.

3 January sales value is in B12 of the Budget (Example 4.8). To pick it up in February of the cash flow, link C8 of the cash flow (Example 4.9) to B12 of the budget (Example 4.8). The link formula will be ='Ex48'!B12.

Copy to March and on through to December.

**Note:** There will normally be sales from December in the previous budget that would be fed through to January, unless this is a new business.

*Costs cash flow timing assumption*

The widget manufacturing cycle of two months means that parts must be acquired two months before sales. But the parts supplier provides one month's credit, and so the cash to pay for them goes out one month *before* the sale.

4 February Product 1 costs are in C27 of the budget (Example 4.8). To pick them up in January of the cash flow, link B24 of the cash flow (Example 4.9) to C27 of the budget (Example 4.8). The link formula will be ='Ex48'!C27.

Copy this down to row 25 of the cash flow to pick up Product 2 direct costs, and then copy both through to November. (Not December, because these are linked 1 month ahead, and there isn't a January of a following year to pick up.)

**Note:** There will normally be sales from January in the following year's budget that would be fed back to December.

*Capital and overheads cash flow timing assumption*

Capital and overhead costs are paid for in the month shown in the budget; therefore, no offset is needed for them.

5 To pick up capital costs (Vehicles) in January of the cash flow, link B16 of the cash flow (Example 4.9) to B15 of the budget (Example 4.8). The link formula will be ='Ex48'!B15.

Copy this down to row 17 of the cash flow **Ex49** and then copy both through to December.

6 To pick up overhead costs (Accommodation) in January of the cash flow, link B31 of the cash flow (Example 4.9) to B33 of the budget (Example 4.8). The link formula will be ='Ex48'!B33.

Copy this down to row 35 of the cash flow Ex49 and then copy all through to December.

7 In column B enter formulae for:

- Total Cash in **=SUM(B8:B9)** and copy through to December.
- Total Capital **=SUM(B16:B18)** and copy through to December.
- Total Direct Costs **=SUM(B24:B26)** and copy through to December.
- Total Overheads **=SUM(B31:B36)** and copy through to December.
- Total Cash **=B19+B27+B37** and copy through to December.

| | A | B | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|---|
| 1 | FILE : Ex49.xls | WIDGET MAKERS LTD | | | | | | | |
| 2 | <DATE> | Cash Flow Forecast | | | | | | | |
| 3 | <TIME> | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug |
| 6 | CASH IN | | | | | | | | |
| 7 | (1 month after sale) | | | | | | | | |
| 8 | Cash In from sales | | 4,250 | 4,550 | 4,850 | 5,185 | 5,520 | 5,915 | 6,310 |
| 9 | (Spare) | | | | | | | | |
| 10 | Total | 0 | 4,250 | 4,550 | 4,850 | 5,185 | 5,520 | 5,915 | 6,310 |
| 11 | | | | | | | | | |
| 12 | CASH OUT | | | | | | | | |
| 13 | | | | | | | | | |
| 14 | CAPITAL COSTS | | | | | | | | |
| 15 | (Same month as cost) | | | | | | | | |
| 16 | Vehicles | 0 | 0 | 15,000 | 0 | 0 | 0 | 0 | 0 |
| 17 | Machinery | 0 | 0 | 0 | 0 | 5,000 | 0 | 0 | 0 |
| 18 | (Spare) | | | | | | | | |
| 19 | Total (A) | 0 | 0 | 15,000 | 0 | 5,000 | 0 | 0 | 0 |
| 20 | | | | | | | | | |
| 21 | | | | | | | | | |
| 22 | DIRECT COSTS | | | | | | | | |
| 23 | (1 month before sale) | | | | | | | | |
| 24 | Product 1 | 525 | 550 | 575 | 600 | 630 | 660 | 690 | 720 |
| 25 | Product 2 | 330 | 360 | 396 | 432 | 474 | 516 | 564 | 618 |
| 26 | (Spare) | | | | | | | | |
| 27 | Total (B) | 855 | 910 | 971 | 1,032 | 1,104 | 1,176 | 1,254 | 1,338 |
| 28 | | | | | | | | | |
| 29 | OVERHEADS | | | | | | | | |
| 30 | (Same month as cost) | | | | | | | | |
| 31 | Accommodation | 135 | 135 | 135 | 135 | 135 | 135 | 135 | 135 |
| 32 | Electricity | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 |
| 33 | Gas | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| 34 | Telephone | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| 35 | Salaries | 3,500 | 3,500 | 3,500 | 3,500 | 3,500 | 3,500 | 3,500 | 3,500 |
| 36 | (Spare) | | | | | | | | |
| 37 | Total (C) | 3,893 | 3,893 | 3,893 | 3,893 | 3,893 | 3,893 | 3,893 | 3,893 |
| 38 | | | | | | | | | |
| 39 | TOTAL CASH OUT | | | | | | | | |
| 40 | ( A + B + C ) | | | | | | | | |
| 41 | Total (D) | 4,748 | 4,803 | 19,864 | 4,925 | 9,997 | 5,069 | 5,147 | 5,231 |

**Example 4.9 (Ex49)** The cash flow forecast