

20.1 A drill to practise the effect of stock valuation on reported profit

Case 1

In Period 1 a firm records purchases £800 and sales £900. State what would be the firm's profit or loss for Period 1 in each of the following circumstances:

1. if closing stock is valued at £75
2. if closing stock is valued at £50
3. if closing stock is valued at £25

Response

The difference between sales and purchases in the period is £100, and this is Period 1 so there is no opening stock. If there had also been no closing stock (if the firm had sold all of its purchases), profit for the period would have been £100 (the difference between sales and purchases).

We are invited to consider examples where the firm has improved upon that result by saving some of its purchases for sale at a later date. Thus:

1. if closing stock is valued at £75
 - profit would be $£100 + £75 = £175$
2. if closing stock is valued at £50
 - profit would be $£100 + £50 = £150$
3. if closing stock is valued at £25
 - profit would be $£100 + £25 = £125$

Case 2

A firm begins a period with opening stock valued at £100. During the period, the firm records purchases £450, and sales £600. State what would be the firm's profit or loss for the period in each of the following circumstances:

1. if closing stock is valued at £100
2. if closing stock is valued at £80
3. if closing stock is valued at £130

Response

The difference between sales and purchases is £150. But the firm did have opening stock value £100. The question now is whether the firm can show a bigger profit because it has saved some of its purchases (as would be shown by an increase in stock), or whether in order to make those sales, the firm has used up more than the value of goods it purchased in the period (as would be shown by a decrease in stock). Thus:

1. if closing stock is valued at £100
 - no change in stock would be indicated, and the firm's profit would be the difference between sales and purchases – that is, £150
2. if closing stock is valued at £80
 - profit would be £130 – that is to say £20 less than the profit in (1), reflecting the fact that the firm has used up £20 of stock as well as its purchases (closing stock of £80 is a reduction of £20 from the opening stock value of £100)
3. if closing stock is valued at £130
 - profit would be £180 – that is to say £30 more than the profit in (1), reflecting the fact that now the firm would have saved £30 of goods purchased (as shown by closing stock £130, against opening stock £100)

Case 3

During a period, a firm records purchases £500, and sales £700. State what would be the firm's profit or loss for the period in each of the following circumstances:

1. if stock levels increase by £50 during the period (i.e. if the value of closing stock is £50 greater than the value of opening stock)
2. if stock levels decrease by £30 during the period
3. if there is no increase or decrease in stocks over the course of the period

Response

The difference between sales and purchases is £200. The question is whether the firm's profit could be bigger than that because it has saved some of its purchases (as would be shown by an increase in stock), or whether its profit must be less than that because it has used up more than the value of goods it purchased in the period (as would be shown by a decrease in stock). Thus:

1. if stock levels increase by £50 during the period
 - profit would be $£200 + £50 = £250$
2. if stock levels decrease by £30 during the period
 - profit would be $£200 - £30 = £170$
3. if there is no increase or decrease in stocks over the course of the period
 - profit would be £200

Case 4

- In Period 1 a firm records purchases £400, and sales £400.
- In Period 2, the firm also records purchases £400 and sales £400.
- There is no closing stock at the end of Period 2.

State what would be the firm's profit or loss for Period 1 and for Period 2, in each of the following circumstances:

1. if there is no closing stock at the end of Period 1
2. if closing stock at the end of Period 1 is valued at £50
3. if closing stock at the end of Period 1 is valued at £100

Response

Beginning at the start of Period 1, the firm can have no opening stock, and there is no closing stock at the end of Period 2. There is no difference between sales and purchases in either of the two periods. Thus:

1. if there is no closing stock at the end of Period 1
 - profit for both periods would be nil. With no carry over of stock from one period to the next, all of the goods (and only the goods) purchased in each period must have been sold in the same period, and since purchases and sales were equal, there can be neither profit nor loss
2. if closing stock at the end of Period 1 is valued at £50
 - then the firm will have saved goods value £50 in Period 1, and used them to make sales in Period 2. Thus it would report a profit of £50 in Period 1, and a loss of £50 in Period 2
3. if closing stock at the end of Period 1 is valued at £100
 - then the firm will save £100 of purchases in Period 1, but will use those purchases to make sales in Period 2. For Period 1 therefore, the firm will report a profit of £100, while for Period 2, it will report a loss of £100