Solutions to practice questions – Study Session 9

Solution 9.1

$$500 \times (50.48 - 50.24) = \$120.00$$

Solution 9.2

When you short sell you are selling a stock (that you don't own) to a broker. That broker is therefore buying the stock from you. The price a broker will pay for that stock is the bid price, *ie* $50.24. So the proceeds from the short-sale are:

$$500 \times 50.24 = 25,120$$

Covering the position is achieved by buying the underlying stock:

$$500 \times 48.36 = 24,180$$

$$\text{Profit} = 25,120 - 24,180 = \$940$$

This answer ignores:

- the transaction costs paid, *eg* commission
- the interest received on the $25,120
- the fee paid to the broker from whom we borrowed the stock
- the cash paid to the lender of the stock to compensate them for any dividends they might have missed during the loan period.

Solution 9.3

Commission is paid upon engaging in the short sale:

$$0.25\% \times 25,120 = 62.80$$

and also upon buying the stock:

$$0.25\% \times 24,180 = 60.45$$

$$\text{Net profit} = 940 - 62.80 - 60.45 = \$816.75$$

Solution 9.4

If Investor B short sells 5,000 shares, but subsequently buys back 2,500 of them, then she still has an outstanding short position of 2,500 shares. At the same time, Investor D has a short position of 10,000 shares.

Since these are the only two investors with short positions in ABC shares, the total outstanding short positions sum to 12,500 shares, which is therefore the short interest in ABC shares.

Alternatively, the short interest can be expressed as a percentage of the total number of shares issued, *ie*:

$$\frac{12,500}{1,000,000} = 1.25\%$$

Solution 9.5

Answer: **C**

The short seller expects the bond price to fall and so is *bearish* on the bond.