

Component: Expenses / Derivatives (IAS 39)

Short title: Hedging

Issue

It is common for companies in the metals industry to hedge against fluctuations in metals prices. Hedging is the attempt to mitigate the impact of economic risks on a company's performance. Many hedges do not meet the criteria to qualify for the special accounting treatment identified in IFRS as hedge accounting. The issue is whether or not hedging qualifies for hedge accounting and what are the resulting consequences.

Hedge accounting means designating a hedging instrument, normally a derivative, as an offset to changes in the fair value or cash flows of a hedged item. Hedge accounting attempts to match the effects of the fair value changes in hedged items (an item exposed to risk) and hedging instruments (instruments used to mitigate the hedged item from exposure to risk), and recognise them in net profit or loss at the same time. The normal rules for financial instruments call for all derivatives to be carried at fair value with gains and losses in the income statement. Hedge accounting allows departures from the normal recognition rules. Accounting rules for hedging are necessary to reflect the economics of hedging relationships in reporting performance. A company using hedge accounting can impact the timing of recognition of gains and losses from fair value changes in hedged items and hedging instruments. This lessens the volatility that might arise if the gains and losses were recognised in the income statement under normal accounting rules.

The question is when can hedge accounting be applied?

Solution

There are strict criteria that must be met before hedge accounting can be used. Management must identify, document and test the effectiveness of those transactions that are intended to reduce risk. The requirements are [IAS 39.142]:

- a) The hedged item and the hedging instrument are specifically identified;
- b) The hedging relationship is formally documented;
- c) The documentation of the hedged relationship must identify the hedged risk and how the effectiveness of the hedge will be assessed;
- d) At the inception of the hedge, it must be expected to be highly effective, that is, the gains and losses on the hedged item and the hedging instrument should almost fully offset over the life of the hedge;
- e) The effectiveness of the hedge must be tested regularly throughout its life. Effectiveness should fall within a range of 80 to 125% over the life of the hedge. This leaves some scope for short-term ineffectiveness, provided that the overall effectiveness falls within this range;
- f) One to one designation is normally required between a single external asset, liability or forecast transaction and a single external derivative instrument; and
- g) Hedges of forecast transactions are allowed if the forecast transaction is "highly probable".

Criteria a) – b) set up strict documentation rules for a company which chooses to apply hedge accounting. The documentation rules have been developed to prevent manipulation in application of hedge accounting and management should consider them as a key requirement that should be met in order to qualify for hedge accounting.

The other criterion that causes numerous questions is hedge effectiveness. In *Appendix 5 "Hedging"* (page 44) we set out an example of (1) determining effectiveness and (2) the accounting.

Appendix 5 "Hedging"

The following example illustrates the effect of a typical forward sales contract being treated as an effective or non effective hedge contract. The example assumes that management developed a hedging policy where the hedged item, the hedging instrument, the hedged risk and determination of effectiveness are appropriately documented.

On 1 October 20X4 company A, which produces aluminium, has one thousands tonnes of aluminium valued at an average cost of US\$ 1,200 per tonne (US\$ 1,200,000 total value) in inventory. Management hedges the aluminium position against a decline in aluminium prices (fair value hedge) or against the exposure to variability in cash flows that will affect reported net profit or loss (cash flow hedge) by selling aluminium futures contracts for one thousand tonnes of aluminium at US\$ 1,550 per tonne. The futures contracts mature in March 20X5, which coincide with the date on which management expects to sell the aluminium.

The fair value of the aluminium is determined substantially by the market price of aluminium, but also by terms of delivery and the quality of metal. The hedge is not, therefore, perfectly effective. However, based on historical data, management determines that changes in the fair value of the aluminium futures contracts will be highly effective in offsetting all changes in the fair value of the inventory.

On 20 March 20X5, management closes out the futures contracts by entering into offsetting contracts. On the same day, management also sells the aluminium at a price of US\$ 1,405 per tonne.

On 31 December 20X4, and 20 March 20X5, the cumulative gain on the futures contracts is US\$ 50,000 and US\$ 95,000 respectively, based on changes in the aluminium-futures prices. On those same dates, management determines that the fair value of the aluminium inventory held has declined by US\$ 45,000 and US\$ 95,000 respectively. The fair value of the aluminium inventory has declined by more than the aluminium price because of changes in other factors, for example transport costs, described above.

A summary of the aluminium spot and futures prices on relevant dates is as follows:

| Date | Aluminium prices, US\$ per tonne | |
|------------------|----------------------------------|--|
| | Spot | Futures prices for delivery on 20/3/X5 |
| 1 October 20X4 | 1,500 | 1,550 |
| 31 December 20X4 | 1,455 | 1,500 |
| 20 March 20X5 | 1,405 | 1,455 |

Management assesses the hedge effectiveness by comparing the entire change in the fair value of the futures contracts, using futures prices, with the entire change in the fair value of the aluminium inventory. A summary of the hedge's effectiveness is as follows:

| Date | Change in FV of futures contracts gain/(loss) | Change in FV of inventory based on changes in aluminium spot prices and other factors gain/(loss) | Effectiveness ratio for the period |
|------------|---|---|------------------------------------|
| 31/12/20X4 | 50,000 ¹ | (45,000) ³ | 111.11 |
| 20/03/20X5 | 45,000 ² | (50,000) ⁴ | 90.00 |

1. (1,550-1,500 per tonne) x one thousand tonnes.
2. (1,500-1,455 per tonne) x one thousand tonnes.
3. (1,455-1,500 per tonne) x one thousand tonnes.
4. (1,405-1,455 per tonne) x one thousand tonnes.

Depending on whether management designates the futures contracts as a fair value hedge of the aluminium inventory (hedging of changes in the inventory's total fair value) or as a cash flow hedge (hedging of the anticipated sale of the inventory) there are two ways to account for changes in the fair value in the futures contract and hedged inventory. The determination of whether it is a fair value hedge or cash flow hedge is drawn from the hedging policy document, where hedged item, hedging instrument and hedged risk should be documented [IAS 39.R.88 a-c]. This cannot be made retrospectively.

Fair value hedge

On 31 December 20X4 and 20 March 20X5, management records the following journal entries (excluding any margin deposit for the futures contracts) for the fair value hedge:

| | DR, US\$ | CR, US\$ |
|---|-----------|-----------|
| 31 December 20X4 | | |
| 1. Futures contracts | 50,000 | |
| Gain on hedge activity (income statement) | | 50,000 |
| To record the futures contracts at their fair value | | |
| 2. Loss on hedge activity (income statement) | 45,000 | |
| Inventory | | 45,000 |
| To record the change in the fair value of the inventory* | | |
| 20 March 20X5 | | |
| 3. Futures contracts | 45,000 | |
| Gain on hedge activity (income statement) | | 45,000 |
| To adjust futures contracts to their fair value | | |
| 4. Loss on hedge activity | 50,000 | |
| Inventory | | 50,000 |
| To record the change in the fair value of the inventory* | | |
| 5. Cash | 95,000 | |
| Futures contracts | | 95,000 |
| To record the net cash settlement of the futures contracts that occurred on 20/3/X5 | | |
| 6. Cash | 1,405,000 | |
| Aluminium sales | | 1,405,000 |
| To record the sale of the inventory at the 20 March 20X5 spot price | | |
| 7. Cost of sales | 1,105,000 | |
| Inventory | | 1,105,000 |
| To derecognise the inventory at carrying value (1,200,000 – 45,000 – 50,000) | | |

* Note: This is not a write-down to NRV – because NRV exceeds cost throughout the period. It is a 'hedging' entry. Consequently the inventory is carried at an amount that is neither cost nor net realisable value nor fair value. Instead the inventory is carried at cost less a hedging adjustment.

Cash flow hedge

On 31 December 20X4 and 20 March 20X5, the following journal entries (excluding any margin deposit for the futures contracts) would be recorded for this cash flow hedge:

| | DR, US\$ | CR, US\$ |
|---|-----------|-----------|
| 31 December 20X4 | | |
| 1. Futures contracts | 50,000 | |
| Equity | | 50,000 |
| To record the futures contracts at their fair value | | |
| 20 March 20X5 | | |
| 2. Futures contracts | 45,000 | |
| Equity | | 45,000 |
| To adjust futures contracts to their fair value | | |
| 3. Cash | 95,000 | |
| Futures contracts | | 95,000 |
| To record the net cash settlement of the futures contracts on 20/3/X5 | | |
| 4. Cash | 1,405,000 | |
| Aluminium inventory sales | | 1,405,000 |
| To record the sale of the aluminium inventory at the 20 March 20X5 spot price | | |
| 5. Cost of sales | 1,200,000 | |
| Silver inventory | | 1,200,000 |
| To remove the aluminium inventory from the accounting records at carrying value | | |
| 6. Equity | 95,000 | |
| Revenue | | 95,000 |
| To reclassify as income the gains on future contracts that were deferred in equity. | | |

Ineffective hedge

If the hedge is considered ineffective, that is effectiveness ratio for the period does not fall within a range of 80 to 125% over the life of the hedge, management is not allowed to apply hedge accounting. In this case management is still required to assess the fair value of the derivative instrument, but all the difference should go to the income statement, without corresponding adjustments to the inventory balance or equity reserve.

Hedge accounting is a complex area and no example can provide guidance for real-life transactions. Consultation with experienced professional advisors is strongly encouraged.