

Discretionary Accounting: How to Get the Accounting to Reflect the Economics when Hedging with Derivatives

By

Ira G. Kawaller*

Although “the fat lady” has yet to sing, the Financial Accounting Standards Board (FASB) has assured the public that the final document pertaining to the accounting treatment for derivative instruments will contain no surprises in terms of the content. Any changes will thus be solely for clarification and explanatory purposes. Assuming this representation to be true, the procedures leave little to the discretion of accountants, besides following the rules, with one notable exception.

The new rules, intended to become effective for fiscal years beginning after December 15, 1998, require users of derivative instruments to classify the use of the derivatives under one of the following categories:

- 1) For speculative purposes.
- 2) To hedge the exposure associated with the price of an asset, liability, or firm commitment.
- 3) To hedge the exposure associated with an uncertain forecasted cashflow.
- 4) To hedge the exposure associated with the currency component of a net investment in a foreign operation.

Given one of these designations, the accounting treatment is proscribed.

For speculative applications, derivative gains or losses must be marked-to-market and gains or losses will be realized in the current period's income.

For fair value hedges, the accounting for the derivative is the same as it is for speculative uses. But in addition, the underlying exposure due to the risk being hedged must also be marked-to-market; and these results flow through current income, as well.

For cashflow hedges, derivative results must be evaluated, with a determination made as to how much of the result is "effective" and how much is "ineffective."

The ineffective component of the hedge results must be realized in current income, while the effective portion is initially posted to "other comprehensive income" and later closed out to income in the same time frame in which the forecasted cashflow affects earnings. Importantly, the FASB only recognizes hedges as being ineffective for accounting purposes when the hedge effects exceed the effects of the underlying forecasted cashflow, measured on a cumulative basis.

For hedges of the currency exposure of a net investment in a foreign operation, again, the hedge must be marked-to-market. This time, the treatment maintains the current provisions of the FASB Statement 52, which requires effective hedge

* Dr. Kawaller is president of KAWALLER & Company, LLC – a Brooklyn-based financial consulting firm specializing in applications of derivative instruments and risk management issues.

results to be consolidated with the translation adjustment in other comprehensive income. Differences between total hedge results and the translations adjustment being hedged flow through earnings.

With this brief summary, it's worth saying that at least three areas of the new rules have invited controversy.

- 1) Some object to the inconsistency of treatment accorded to derivative instruments that are embedded in other securities. Some of these embedded derivatives, but not all, must be accounted for as if they were stand-alone derivatives. Critics charge the determination of which is which to be arbitrary.
- 2) The FASB has rejected "synthetic instrument accounting," such that equal economic exposures may have different accounting treatment, i.e., if one approach uses traditional market instruments and the other replicates this exposure using derivatives.
- 3) The issue of "effectiveness" fosters a lack of consistency of accounting treatment.

With respect to these first two issues, the FASB has spoken. Basically, the Board listened to the various arguments and points of view and made a set of decisions. Derivative users may continue to try to influence the FASB to revise its standard, but the FASB has shown little inclination that such efforts will be fruitful, leaving little choice for derivatives users but to accommodate to the new rules. With respect to the last issue, however, hedgers do have an element of choice that will influence the way in which the accounting will be handled.

This variability of accounting treatment for cashflow hedges and hedges of net investments on foreign operations stems from the following sentence: "There

may be reasonable basis for how the entity plans to assess the hedging instrument's effectiveness."¹ The consequence of this statement is that *if different criteria for measuring hedge effectiveness are articulated*, two organizations undertaking the same hedge transactions may end up with different accounting treatment

Typically, those desiring hedge accounting for cashflow hedges want to minimize current income volatility. Ideally, then, the optimal approach for measuring hedge effectiveness would be the one where no contribution would be made to the current earnings. The hedger may actually influence this outcome by the way in which the hedge objectives are specified in the disclosure documentation.

To illustrate this point, consider the case of the hedger who has a prospective need to purchase 100 ounces of gold. He/she wants to hedge this exposure with a derivatives transaction and wants to receive cashflow hedge accounting. Assume the purchase of a May gold futures contract on January 10, with the prospective purchase of the physical gold planned for May 1. Further, for the sake of the example, assume that the ultimate effect on earnings will be during some period beyond the May 1 acquisition date, in some later quarter.

As a prerequisite, it is useful to appreciate that this example is one where the hedge is perfect. That is, regardless of whether gold prices rise or fall, the consequence of the hedge is that the effective price of gold is secured – equal to

¹ Appendix B, Page 52, "Background Information and Basis for Conclusions," September 1997.

the price of the gold futures contract when the hedge is originally initiated. This outcome is demonstrated in Table 1 under two alternative scenarios. In case A, the spot price of gold falls from \$350 per ounce to \$315, while in case B it rises to \$385. In both cases, however, the effective price of gold consolidates the May 1 spot price with the gains or losses of the futures contract (losses are added; gains are deducted). Having originally purchased the May futures at a price of \$354 per ounce, this price is realized.²

Table 1: Possible Outcomes

	<u>Case A</u>	<u>Case B</u>
Spot gold (Jan 10)	\$350	\$350
May futures (Jan 10)	354	354
Spot gold (May 1)	315	385
May futures (May 1)	315	385
P&L on futures (per ounce)	-39	31
Effective price (per ounce)	\$354	\$354

Importantly, this result is contingent upon several key implicit assumptions that might likely be violated in more real-world situations:

- 1) There is no rounding error in terms of the hedge implementation. That is, the futures contract size is perfectly consistent with the exposure's requirements.

² Futures (or forward) prices differ from the spot prices because of "cost of carry" considerations – largely financing costs. Ultimately, however, at the expiration of the contract, futures and spot prices will be forced to converge because of arbitrage activity. These concepts are reflected in the example shown.

- 2) The exposure is precisely identical to the underlying instrument upon which the futures contract is based.
- 3) At the time of the hedge liquidation (May 1 in the above example), spot and futures prices have converged completely.

Given the “perfectness” of this hedge³ one would certainly hope that all of the futures results would qualify as being “effective,” and thus no portion of the gains or losses would be forced into current income. This outcome, however, is not assured. To demonstrate, consider Case A, above, where we now introduce some additional information pertaining to market conditions at the end of the first quarter. Suppose that on March 31 spot gold traded at \$330 per ounce, and the May gold futures contract settled at \$331. We examine the accounting assuming two alternative hedge objectives: (1) that the stated objective of the hedge is to offset changes in the spot price of gold, and (2) that the stated objective is to lock in an effective purchase price of \$354.

As shown in Table 2, the change in the spot price is \$20 by the end of the first quarter and an additional \$15 by May 1. The May futures contract changes by \$23 and \$16, respectively, over the same periods. Under the first approach, the accountant would record a current loss on the futures contract of \$3 per ounce⁴ in the first quarter and a loss of \$1 during the second quarter. A total of \$35 would be deferred (\$20 + \$15). Thus, we see that this specification of the hedge objective results in some degree of unwanted income volatility.

³ Another way to represent this example is to say that it assumes away the problem of “basis risk.” “Basis” is defined to be the difference between the spot price and the futures price.

⁴ For simplicity, amounts are discussed on a “per ounce” basis, rather than for the full 100 ounce position. It should be clear, however, that the adjustment simply requires multiplying by 100.

If the second hedge objective is specified – that is, to lock-in a purchase price of \$354 -- the ineffective portion of the hedge would be any change in the futures price in excess of the difference between \$354 and the spot price. In the first quarter, with the spot price of gold moving to \$330, the difference from the targeted value of \$354 is \$24. As the price change of the futures contract is \$23, the hedge would be deemed to be entirely effective (i.e., $\$23 < \$354 - \$330 = \24). In the second period, the assessment must be carried out on a cumulative basis. By May 1, the combined futures price change over the two periods ($\$23 + \$16 = \$39$) is still smaller than the difference between the spot price and the target ($\$354 - \$315 = \$44$), so again the hedge is deemed to be completely effective. Therefore, the \$16 futures hedge loss in the second period is also deferred. It should be clear, then, that stating the hedge objective in this way ends up fostering the desired result of no income volatility.

Unfortunately, the FASB documentation shows only a limited set of examples of hedge accounting. As a consequence, it is likely that many practitioners will select specific examples to use as templates in situations where a preferred outcome would follow if an alternative means of measuring hedge effectiveness (i.e., an alternative hedge objective) were articulated – one that may not be illustrated. Although the examples offered by FASB will certainly comply with their accounting requirements, it would be an error to assume that these examples display the *best* solutions. Those who follow the examples without considering alternative ways of specifying hedge objectives will likely inject an

unnecessary and unwanted element of income volatility into their companies' income statements.

Table 2: Price Scenario

	Jan 10	Mar 31	May 1
Spot gold	\$350	\$330	\$315
Spot price change	--	-20	-15
May gold futures	354	331	315
Futures price change	--	-23	-16

The moral of this story is that the disclosure of the objectives of the hedge is a critical issue, as this statement serves as the basis for the assessment of hedge effectiveness. The wording of the hedge objective statement will determine how closely the accounting treatment reflects the intended purpose of the hedge transaction. Less than careful attention to this seemingly innocuous requirement could leave lead to less than optimal accounting results.