

APPENDIX A

Example of a Fair Value Hedge

Illustrating the basic hedge accounting issues can be done with a stylized example. Assume a company borrows \$100,000 of 6% fixed-rate debt on Jan. 1, 2005, with a three-year maturity, and it simultaneously engages in a swap with a bank for a variable rate that is pegged to the Libor. For simplicity, when the loan is made, the fixed rate on the debt equals the Libor, and the debt is issued at par. Also for simplicity, the interest rate is reset only at Dec. 31, 2005, and Dec. 31, 2006, to new assumed variable rates of 8% and 4%, respectively. This example, which is based on the Tenneco case, involves a fair value hedge because the company swaps a fixed rate for a variable one. If the swap had been in the other direction, that is, variable for fixed, then this would be a cash flow hedge and the accounting would be different.

The journal entries and explanations for the stylized example are as follows:

Date	Accounts	Dr.	Cr.	Explanation	
A) 01/01/05	Cash	100,000		The company borrows \$100,000. Maturity is three years; coupon is 6%.	
	Loan Liability		100,000		
B) 12/31/05	Interest Expense	6,000		The first interest payment. Interest expense = $100,000 \times 6\%$	
	Cash		6,000		
C) 12/31/05	Interest Expense	3,567		The company marks-to-market the swap. The increase in interest rates creates a Derivative Liability, the value of which is assumed.	
	Derivative Liability		3,567		
D) 12/31/05	Loan Liability	3,567		Under the "shortcut" method, the company simply "matches" in the opposite direction the above change in the fair value of the swap, without calculating the fair value of the loan separately.	
	Interest Expense		3,567		
E) 12/31/06	Interest Expense	6,000		The second interest payment. Interest expense = $\$100,000 \times 6\%$	
	Cash		6,000		
F) 12/31/06	Interest Expense	2,000		The company pays the bank to settle the swap. = $\$100,000 \times (8\% - 6\%)$	
	Cash		2,000		
G) 12/31/06	Derivative Asset	1,923		The company again marks-to-market the swap. The decrease in interest rates creates a Derivative Asset. The Derivative Liability is eliminated and replaced by the Derivative Asset (a "receivable"), the value of which is assumed.	
	Derivative Liability	3,567			This eliminates the liability position.
	Interest Expense		5,490		Interest expense = $\$1,923 + \$3,567$
H) 12/31/06	Interest Expense	5,490		Under the shortcut method, this matches the above.	
	Loan Liability		5,490		
I) 12/31/07	Interest Expense	6,000		The third interest payment. Interest expense = $\$100,000 \times 6\%$	
	Cash		6,000		
J) 12/31/07	Cash	2,000		The bank pays the company to settle the swap. = $\$100,000 \times (4\% - 6\%)$	
	Interest Expense		2,000		
K) 12/31/07	Loan Liability	1,923		This closes out the Derivative Asset and brings the Loan Liability to par value at maturity.	
	Derivative Asset		1,923		
L) 12/31/07	Loan Liability	100,000		The company repays the loan.	
	Cash		100,000		

The increase in Interest Expense in entry C results from the fact that interest rates rose. Under the shortcut method, entry D matches entry C. (The example uses "Interest Expense" instead of "Unrealized Loss" to record the change in fair value of the swap and debt. This is consistent with Tenneco's practice, as disclosed in its SEC filings.)

Continuing to the next year, entry G again resets the fair value of the swap. The derivative switches from a liability position (payable) to an asset position (receivable) because the interest rate fell. In entry H, the debit to Interest Expense exactly matches (offsets) the credit booked in entry G.

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The SEC has decided that when a company incorrectly applies the shortcut method, the error should be corrected by assuming that there was no hedging relationship *whatsoever*. This means that the debt would be carried at amortized cost. In the example above, journal entries D and H would not have been made. The lack of offset to Interest Expense would convert an economic hedge to a speculative transaction. This is precisely the scenario as it occurred at Tenneco.

The entries below reconstruct the stylized example to illustrate the effects of marking-to-market only one side of the transaction:

Date	Accounts	Dr.	Cr.	Explanation
A) 01/01/05	Cash	100,000		The company borrows \$100,000. Maturity is three years; coupon is 6%.
	Loan Liability		100,000	
B) 12/31/05	Interest Expense	6,000		The first interest payment. Interest expense = \$100,000 x 6%
	Cash		6,000	
C) 12/31/05	Interest Expense	3,567		The company marks-to-market the swap. The increase in interest rates creates a Derivative Liability, the value of which is assumed.
	Derivative Liability		3,567	
D) 12/31/05	Loan Liability			The loan would not be marked-to-market.
	Interest Expense			
E) 12/31/06	Interest Expense	6,000		This is the second interest payment. Interest expense = \$100,000 x 6%
	Cash		6,000	
F) 12/31/06	Interest Expense	2,000		The company pays the bank to settle the swap. = \$100,000 x (8% – 6%)
	Cash		2,000	
G) 12/31/06	Derivative Asset	1,923		The company again marks-to-market the swap. The decrease in interest rates creates a Derivative Asset. The Derivative Liability is eliminated and replaced by the Derivative Asset (a receivable), the value of which is assumed.
	Derivative Liability	3,567		
	Interest Expense		5,490	This eliminates the liability position. = \$1,923 + \$3,567
H) 12/31/06	Interest Expense			The loan would not be marked-to-market.
	Loan Liability			
I) 12/31/07	Interest Expense	6,000		The third interest payment. Interest expense = \$100,000 x 6%
	Cash		6,000	
J) 12/31/07	Cash	2,000		The bank pays the company to settle the swap. = \$100,000 x (4% – 6%)
	Interest Expense		2,000	
K) 12/31/07	Interest Expense	1,923		This closes out the Derivative Asset.
	Derivative Asset		1,923	
L) 12/31/07	Loan Liability	100,000		The company repays the loan.
	Cash		100,000	

The differences between Interest Expense for both sets of stylized examples are shown below. The differences also represent the accounting restatement that a company would be required to make if it incorrectly used the shortcut method.

INTEREST EXPENSE					
2005		2006		2007	
As Reported	Restated	As Reported	Restated	As Reported	Restated
6,000	6,000	6,000	6,000	6,000	6,000
3,567	3,567	2,000	2,000	(2,000)	(2,000)
(3,567)		(5,490)	(5,490)		1,923
		5,490			
6,000	9,567	8,000	2,510	4,000	5,923

Note that cumulative Interest Expense is the same for "as reported" and "restated":

As reported: 6,000 + 8,000 + 4,000 = 18,000

Restated: 9,567 + 2,510 + 5,923 = 18,000