

Updates and Errata for ACTEX Study Manual  
Exam FM/2, December 2014 Edition  
November 11, 2015

**Page M3-19, Example 3.44 Solution, second paragraph**

Replace

"PMT = -2,000 , N=2 and CPT FV = -30,832,00."

With

"PMT = -2,000, N=2, I/Y=8 and CPT FV = -30,832.00"

**Page M11-6, Section 11.4**

Under Overview, the first sentence should read

Chapter 1 of *Derivatives Markets* gave four basic reasons to **use derivatives**.

**Page M12-20, line 1.**

Should read *Example on pages 140-143*.

**Page M12-20, line 5.**

Should read "McDonald notes on page 144."

**Page M12-22, table at top.**

The numbers in the 4th column were displayed rounded by EXCEL. They should be displayed to two places. All other numbers were correctly displayed/ The corrected table is:

<u>Week</u>	<u>Multiplier(\$)</u>	<u>Futures Price</u>	<u>Price Change</u>	<u>Margin Balance(\$)</u>
0	2000	1100.00		220,000.00
1	2000	1027.99	-72.01	76,233.99
2	2000	1037.88	9.89	96,102.01
3	2000	1073.23	35.35	166,912.96
4	2000	1048.78	-24.45	118,205.66

5	2000	1090.32	41.54	201,422.13
6	2000	1106.94	16.62	234,894.67
7	2000	1110.98	4.04	243,245.86
8	2000	1024.74	-86.24	71,046.69
9	2000	1007.30	-17.44	36,248.72
10	2000	1011.65	4.35	44,990.57

**Page M14-18, Solution to Problem 8.9**

This problem covers the dealer's implicit loan and its balance at each quarter. Recall that because of his forward hedging, the dealer's net payment is the difference between the swap price and the forward price. Our spreadsheet for the problem is below. We will explain the remaining steps in it below the spreadsheet.

Quarter	0	1	2	3	4	5	6	7	8
Oil forward Price		21.0	21.1	20.8	20.5	20.2	20.0	19.9	19.8
Zero Coupon Bond		0.9852	0.9701	0.9546	0.9388	0.9231	0.9075	0.8919	0.8763
Implied Forward		1.015022	1.015565	1.016237	1.01683	1.017008	1.01719	1.017491	1.017802
R=	20.4304								
Dealer Net		-0.5696	-0.6696	-0.3696	-0.0696	0.2304	0.4304	0.5304	0.6304
Implicit Balance		0.5696	1.24802	1.63787	1.73501	1.53410	1.13005	0.61939	0.00000

In periods 1-4 the dealer pays out cash (negative amounts). In periods 5-8 the dealer receives cash. This is similar to making a loan. The implicit balance is computed assuming that the loan pays interest in each period at the implied forward rate for that period. We have changed sign on the balance to show it as a positive number as is traditional.

The implicit balance on the loan at time n will be

$$Balance_{n+1} = Balance_n(1 + r(n, n + 1)) - DealerNet_{n+1}$$

For example

$$\begin{aligned}
 Balance_2 &= Balance_1(1 + r(1,2)) - DealerNet_2 \\
 &= .5696(1.015565) - (-.6696) \cong 1.2480
 \end{aligned}$$