

# ACTEX MFE/3F Study Manual

## Spring 2012 Edition

### Errata

(February 2, 2012)

1. M1-7: The equation for  $E^*[S_h]$  should be  $E^*[S_h] = p^*S_0u + (1 - p^*)S_0d = S_0e^{(r - \delta)h}$ .
2. M2-15: The second last line of the solution to Question 7 should write

$$P(0.5 < X(20) < 1 \mid X(10) = 0.7).$$

3. M3-8: For options on currencies, the prepaid forward price is  $x(t)\exp[-(r - r_f)(T - t)]$ . The same change is needed for the summary table on the same page.
4. M5-14: In the second line of the solution, change  $r_{ddd} = 9\%$  to  $r_{ddd} = 8.90091\%$ .
5. M5-17: Change the last 4 lines of the solution to:

$$P(0.093, 1, 4) = \frac{1}{1.093} \times \frac{1}{4} \left[ \frac{1}{1.135} \left( \frac{1}{1.1359412} + \frac{1}{1.11} \right) + \frac{1}{1.10596} \left( \frac{1}{1.11} + \frac{1}{1.089} \right) \right]$$
$$= 0.735188$$

$$\text{giving } r(1, 4) = 0.735188^{\frac{1}{3}} - 1 = 10.7985\%.$$

$$\text{The year-3 yield volatility is } \frac{1}{2} \ln \frac{13.8636}{10.7985} = 12.4929\% .$$

6. T2-9: In line 2, change “call option” to “asset-or-nothing call”.
7. T2-21: Change 68.25 to 68.55.
8. T3-17: Change the answer key for Question 5 to (B).
9. T3-18: The last sentence should be: “At time 0, we have  $-100$  units of  $S_1$ , so we need  $-100N = -100(0.3 \times 50) / (0.25 \times 75) = -80$ .”
10. T10-20: In the solution to Question 5 (line 4), the equation should be  $f_z(t, z) = f_{zz}(t, z) = \exp(z - t/2)$ .
11. T10-27: In the solution to Question 23, the second last line should be written as “Putting  $t = 2$ ,  $\ln P_2(2, 4) = \ln P(2, 4) \sim N(-0.5 - \ln(90/93), 0.1)$ ”.