

ACTEX IFM Study Manual

April 2018 Edition

Errata

Sept 30, 2018

M1-29, line -2 of Example 1.2.1: $R_P = 52\%$

M1-33, Example 1.2.2 Solution: (a) $\text{Var}(R_P) = 0.097669$, the volatility is 31.252%

(b) $\text{Var}(R_P) = 0.069873$, the volatility is 26.434%

M1-38 The first equality of $g(cx_1, cx_2)$:

$$\frac{1}{2} \{ \ln c^2 + \ln [x_1^2 \text{Var}(R_1) + 2x_1x_2 \text{Cov}(R_1, R_2) + x_2^2 \text{Var}(R_2)] \}$$

M1-40 paragraph -3 line 3: each of the stocks in the market, ... each of the stocks in

M1-46 #8: 1st line: $20 \times 75 = \underline{1500}$, 2nd line: would be 2200. He can then purchase 110 shares of B. 3rd line onward:

$$x_A = \frac{-1500}{700} = -\frac{15}{7}, \quad x_B = \frac{2200}{700} = \frac{22}{7}$$

The mean return is $-\frac{15}{7} \times 0.14 + \frac{22}{7} \times 0.1 = 1.4286\%$.

$$\text{Var}(R_P) = \left(-\frac{15}{7}\right)^2 \times 0.3 + 2 \times \left(-\frac{15}{7} \times \frac{22}{7}\right) \times 0.12 + \left(\frac{22}{7}\right)^2 \times 0.15 = 1.242857$$

The volatility is $1.242857^{0.5} = 111.4835\%$.

M1-61, the line preceding Q12: change to "... of firms 1 and 3, and 50% of firm 2."

M2-5 Example 2.1.3 line 2: Assuming that the firm has a debt beta of 0.01 and ...

M2-12 #15 first line: change to "A firm has 30 million shares outstanding"

M2-13 #3 last line: change to "Hence YTM = 4.585%."

$$\text{M2-15 #15: } r_{wacc} = 0.225 - \frac{120}{120 + 20 \times 30} \times 0.07 \times 0.4 = 22.0\%$$

M3-2: the statement in the box: ... sell financial assets **to** customers ...

M3-25, Example 3.2.2: "(b) Suppose that you observe a 6-month prepaid forward price of 98..."

M3-39: #1(b): The market prepaid forward price is too **high**.

M3-70: #8 First paragraph: Option I would be exercised when the stock price hits the minimum over the 6-month period. The minimum is 18. So it is optimal to exercise the put during the first time period. The payoff is 2.

M4-11: #5 (ii): The payoff from the **strangle**...

M5-16 Ex 5.19 solution line 4: Since $a\sigma\sqrt{T}Z \sim N(0, a^2\sigma^2T)$, by (5.1.2) we have $E[e^{a\sigma\sqrt{T}Z}] = e^{a^2\sigma^2T/2}$. line 5: Change $e^{a\sigma^2T/2}$ to $e^{a^2\sigma^2T/2}$

M7-25 Ex 18 solution: $E = 30, D = 0, E^* = 25, D^* = 5, V = 500 \times 15 = 7500$.

The amount in equity is $\frac{E}{E^*} \times V = \frac{30}{25} \times 7500 = 9000$.

The amount of debt is $7500 - 9000 = -1500$.

So Phil should borrow \$1500 at 4% to purchase an additional 100 shares of Gogle's equity (which is worth 1500).

T1-6 #12, for all choices, insert "synthetic" before the first "forward", and delete "synthetic" that appears before the second "forward".

T2-2 #3 line 5: change 150 to 510.

T3-14 #28: change (iii) to " $u = e^{0.15}$ and $d = 1/u$ "