

ERRATA

Chapter 1 Answer to 1.9: Replace the continuous rate 0.053 by 0.052.

Answer to 1.23 (b): Replace “Effective rates” by “Spot rates”.

Answer to 1.29 (a): Replace the last - by +.

Chapter 2 P. 21, row 3-: 0.15% (instead of 0.13%).

P. 24: The multiples are 10, 23 and 68 (instead of 10, 22 and 68).

Answer to 2.21: (a) 1762.48 (b) 13.20.

Chapter 3 Answers to:

3.7.

	22.3	.		.
	21.4	0.47		11.2
<i>P</i> : 20	20.5	.		.
	18.6	.	<i>a</i> : 0.70	.
	18.6	0		18.6
	18.6	.	<i>c</i> : 6.0	.

3.8.

	22.0	.		.
	21.3	0.33		14.0
<i>P</i> : 20	20.7	.		.
	19.3	.	<i>a</i> : 0.67	.
	18.7	0.33		12.7
	18.0	.	<i>c</i> : 6.7	.

3.11. In the last summation the upper bound should be $k + 1$ (not k).

3.12. Replace 1.92 in P by 1.91, and 1.93 in P_{norm} by 1.94.

Chapter 4 Answer to 4.2 (a): Replace Cov by 2Cov.

Answer to 4.8: $d = \frac{\sqrt{\text{Var}(\tilde{\sigma}^2)}}{2\sigma^2} = \sqrt{\frac{\partial t}{2T}}$.

Table 4.7: Replace 0.74 in the lower right corner by 0.074.

Answer to 4.16: Replace $\sigma^k(\partial t)^k EZ^k$ after the last = by $\sigma^k\sqrt{\partial t}^k EZ^k$.

Chapter 5 Page 76. The line above Theorem 5.1: Replace “Theorem 3.5” by “Theorem 3.2”.

Page 84, 13: Replace $P_k = \Delta_{k-1}S_k - A_{k-1}$ = by $P_k = \Delta_{k-1}S_k - A_{k-1}e^{r(t_k - t_{k-1})}$ =.

Page 88, the formulation of Theorem 5.5: Replace $F(S_T)$ by $f(S_T)$ (three places).

Page 92, row 10: Replace “weights” by “the number of units of the assets”.

Page 95, the row above formula (5.36): Replace the expression for L by formula (6.48).

Answer to 5.4, last line p. 196: Replace $\Phi(d)$ by $\Phi(d_-)$.

Answer to 5.5 (a), last line: Replace Exercise 5.5b by Exercise 5.4 (b).

Answer to 5.6:

$T - t$	Δ	$S\Gamma$	Θ/S	ϑ/S	ρ/S
1	0.58	0.98	-0.10	0.39	0.42
1/4	0.54	1.98	-0.18	0.20	0.12
1/50	0.51	7.05	-0.58	0.06	0.01

Answer to 5.8: (b) A=4.48.

Answer to 5.9: (a) 0.827.

Answer to 5.10 (b): Replace Θ by $\Theta + r(-C_0 + xS_0)e^{rt}$. Add: “It follows that the change is positive regardless the sign of ∂S if ∂t is so small that it is negligible compared to $(\partial S)^2$.”

Answer to 5.18, row 3: The second F is misplaced and lacks a bar.

Answer to 5.18, row 6: Delete one of the two $\frac{\partial F}{\partial t}$.

Chapter 6 Page 100, row 4-: Replace Table 4.5 by Table 4.6.

Page 101, two lines above Exercise 6.2: Replace Table 4.6 by Table 4.9.

Solution to 6.3: Replace $\frac{H}{m}(m + m(m - 1)\rho)$ on the last line by $\frac{H}{m^2}(m + m(m - 1)\rho)$.

Page 104, row 5-: Replace κ by $|\rho|\sigma/\tau$.

Page 111, row 1: Replace Table 4.4 by Table 4.6.

Page 112, row 3-: Replace Section 2.6 by Section 6.2.6.

Page 113, The two last lines: Replace “ \mathbf{v}_{max} ” by “the weights (6.34)”, and multiply the expression to the right on the last line by σ .

Chapter 7 P. 131, Exercise 7.2: Replace $\text{Var}(\mathbf{R})$ by $\text{Var}(R)$.

P. 139, formula (7.10): Replace $\text{Cov}(R_i, R_M)$ by $\text{Cov}(R_i, R_M)/\partial t$.

P. 139: Replace σ_M in (7.13) by σ_M^2 .

Solution to 7.6. (a) The portfolio has the return

$$R_{min} = \mathbf{v}_{min} \cdot \mathbf{R} = \sum v_{min}(i)R_i.$$

We get in the same way as in Exercise 7.5 that

$$\beta_{min} = \mathbf{v}_{min} \cdot \beta = \sigma_{min}^2 \mathbf{1} \cdot Q^{-1} \beta.$$

(b) We have

$$\begin{aligned} \rho_{min,M} &= \frac{\text{Cov}(\mathbf{v}_{min} \cdot \mathbf{R}, R_M)}{\sigma_{min} \sigma_M} = \frac{\sum v_{min}(i) \text{Cov}(R_i, R_M)}{\sigma_{min} \sigma_M} = \\ &= \frac{\sum v_{min}(i) \beta_i \sigma_M^2}{\sigma_{min} \sigma_M} = \frac{\mathbf{v}_{min} \cdot \beta}{\sigma_{min}} \sigma_M. \end{aligned}$$

Also

$$\begin{aligned} \rho_{min,\beta} &= \frac{\text{Cov}(\mathbf{v}_{min} \cdot \mathbf{R}, \mathbf{v}_\beta \cdot \mathbf{R})}{\sigma_{min} \sigma_\beta} = \frac{\sum_i \sum_j v_{min}(i) v_\beta(j) \text{Cov}(R_i, R_j)}{\sigma_{min} \sigma_\beta} = \\ &= \frac{\mathbf{v}_{min} \cdot Q \mathbf{v}_\beta}{\sigma_{min} \sigma_\beta} = \frac{\sigma_{min}^2}{\sigma_{min} \sigma_\beta}. \end{aligned}$$

The result now follows from (7.3)

Chapter 8

P. 210, solution to 8.2: Replace $\hat{\sigma}$ in the expression that defines U by σ . Multiply Z_2 by P_r in the last formula.

Chapter 9 P. 168, row 9-: Replace “In Fig. 9.1, correlations” by “In Fig. 9.1, the Beta portfolio with equal correlations”.

P. 169, Fig. 9.1: Replace “Gem” in the plot by “Equal”.

P. 170, row 3: Replace $\sum_{i \in I} x_i$ by $\sum_{i \in I} x_i^2$.

P. 174, row 4-: Replace R_i by R_M .

P. 174, formula (9.19): Replace J by j .