

MRA Volume III: Changes for Second Reprinting

When counting lines matrices and formulae count as one line and spare lines and footnotes do not count.

‘Line $-n$ ’ means n lines up from the bottom, so ‘Line -1 ’ means the last line.

Page	Location	Comment
31	Line – 14	Change c to 100s
91	Line 2	Delete minus sign before N (twice)
116	(III.2.50)	Change first r_s to r and then second line changes – equation should read $N(r(t,T) - \beta r_F(t,T)) \approx N(r(t,T) - \beta[r_s(t,T) + r(t,T) - y(t,T)])$ $= N(1 + \beta)r(t,T) - N\beta r_s(t,T) - N\beta y(t,T).$ So change below as follows: 1 st bullet $N(1 - \beta) \rightarrow -N\beta$, 2 nd bullet $N\beta \rightarrow N(1 + \beta)$ throughout the bullet (i.e. also twice in equation)
117	(III.2.51)	Should be Total Risk ² – Systematic Risk ² inside bracket
129	Lines 1 and 3	Change subscript Sft to subscript SFt
150	(III.3.24)	Change second minus to plus
164	Ex III.3.2	Insert ‘position on a’ between ‘short’ and ‘put’ in line 1 of example
184	Line – 17	After ‘To first order only’ add ‘, and assuming the option is close to ATM so that f is approximately linear in σ ,’
193	Line - 9	Change (c) to (b)
200	FN	‘Vasicek’ not ‘Vasik’
202	Line 15	‘matrix to’ not ‘to matrix to’
202	(III.3.95)	Change second λ_{i2}^2 to λ_{i3}^2
203	Line 3	Change second Λ_2 to Λ_3
204	Line 5	Figures III.3.27 and III.3.28, not III.3.26 and III.3.27
206	Line – 4	‘eigenvectors’ not ‘eigenvalues’
208	Line 21	‘puts’ not ‘put’
211	3 rd Bullet	‘options’ not ‘option’
212	Line 1	Delete Σ
212	Line 3	Delete entire line beginning $\Sigma =$
213	(III.3.102)	In formula <i>above</i> this, change $\omega X \exp(\dots$ to $\omega \exp(\dots$, that is, delete first X
213	Ex III.3.13	Insert full stop after ‘priced’ in line before example
222	Lines 8 and 9	Change ‘rate’ to ‘strike’ (twice)
224	Line – 15	‘principle’ not ‘principal’
229	Line 7	Delete redundant ‘of the’
233	Line -2	Replace ‘in-the-money (ITM)’ with ‘out-of-the-money (OTM)’
234	Line 3	Insert ‘to’ before ‘hold’
241	Line 6	Insert ‘the’ before ‘caplet’
241	FN16	Insert ‘the’ after ‘fix’
242	Line 1	Change $\theta(K, T)$ to $\theta^{\text{Cap}}(K, T)$
242	Line 6	Change $\theta^{\text{Cap}}(T_1)$ to $\theta^{\text{Cap}}(K, T_1)$
242	Lines 8 and 10	Change $\theta^{\text{Caplet}}(T_2, T_3)$ to $\theta^{\text{Caplet}}(K, T_2, T_3)$
242	Line -13	Replace ‘swaps markets’ with ‘swaption markets’
245	(III.4.7)	Replace $C_r(K, T) = \frac{\partial C(K, T)}{\partial K}$ by $C_r(K, T) = \frac{\partial C(K, T)}{\partial T}$
248	Line 13	Replace ‘Figure III.4.9 were’ by ‘Figure III.4.8 were’
249	Line 3	Change ‘lead’ to ‘led’
249	(III.4.12)	Change S to X
251	(III.4.20)	Change λ to π
251	Line -10	Insert ‘the’ between ‘straightforward in’ and ‘lognormal’
252	Line 8	2 lines below display equation, change <u>first</u> γ_{BSM} to δ_{BSM}
256	Line – 9	Delete ‘price’ before ‘Derman’
257	Line 1	Insert ‘in’ after ‘volatility’
257	Line 3	Change ‘the price’ to ‘price’
268	Line 6	Insert ‘log’ before ‘returns on’
269	(III.4.46)	Should read

		$\Pi(S, \sigma) = (g_{1S}(S, \sigma)S - g_1(S, \sigma)) - \frac{g_{1\sigma}(S, \sigma)}{g_{2\sigma}(S, \sigma)} (g_{2S}(S, \sigma)S - g_2(S, \sigma))$
275	FN58	'is' not 'if'
276	Lines 10 - 13	To be more precise, change 'and the market smile In fact,' to 'dynamics, resulting from a movement in the underlying price alone, contradict the observed dynamics of the market smile. The standard (partial derivative) delta ignores the indirect effect that price movements have on volatility in stochastic volatility models where price and volatility are correlated. So, according to the standard delta,
279	Table III.4.7	Replace m with $m^{1/2}$
280	FN 63	Replace II.3 with II.4
282	Line – 6	Change III.4.67 with III.4.7
282	Line – 1	Change $365/\varphi$ to $\varphi/365$
288	Line 3	Insert 'be' before 'observed'
289	(III.4.74)	Second equation should read $dV_i(t) = \varphi_i(m_i - V_i(t))dt + \sqrt{2} \alpha_i V_i(t) dW_i(t)$, $i = 1, 2$ and the equation below this should read $p_1(t) = \pi_{11}p_1(t) + (1 - \pi_{22})p_2(t)$, $p_2(t) = (1 - \pi_{11})p_1(t) + \pi_{22}p_2(t)$,
292	Line – 17	Insert 'to' before 'a floating'
292	Line – 3	'future' not 'futures'
294	Line – 14	Insert 'the' before 'following'
296	Line – 13	Delete sentence beginning 'In that case'
296	Line – 8	'depend' not 'depends'
297	Line – 8	Insert 'effect' after 'indirect'
300	Line – 8	Change 'footnote 75 below' to 'the discussion on page 296'
308	(III.4.113)	Insert 2 before last T^{-1}
324	Line 22	Change T_i to T_1 – also in line 27