

MRA Volume IV: Changes for First Reprinting (July 2009)

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
5	Line 10	Change 'is it' to 'it is'
38	Line 10	Change 'in an way' to 'in a way'
42	Line - 8	Change 'return are' to 'returns are'
48	Line - 2	Replace 'and' with 'an'
49	Line 2	Change 'takes account' to 'takes no account'
49	Bullet 3	Change 'facilities' with 'facilitates'
49	Bullet 6	In line 3, change 'is it' to 'it is'
79	FN 22	Change '1 million at <i>N</i> years' to ' <i>N</i> million at <i>T</i> years' and change '3000/400=£7.5 million' to ' $0.3 \times 4 = \text{£}1.2$ million'
90	Example IV.2.13	In the question, lines - 5 and - 6, change 1% to 5% (twice)
91	Line 8	For clarity, add '(see Section IV.8.2.5)' after 'standardized rule'
94	(IV.2.52)	Change 'FX' to 'Forex'
102	Line 16	Replace $0.25 \times 100 \times (-12.5, 5, 7.5)$ ' by $100 \times (-12.5 \times 0.245, 5 \times 0.246, 7.5 \times 0.246)$ '
150	Displayed equation	Remove '/2' from indices (three times)
127	Table IV.2.33	Reduce font size on 'EWMA'
133	(IV.2.90) and Line - 4	$v_i$ should not be bold (but $v$ alone should be bold, as it is)
180	Below (IV.3.15)	In this equation one of the <i>V</i> 's (in the middle) is missing a <i>t</i> subscript
183	Line 3	Add reference 'and in Section II.3.8' after 'Section II.1.2,'
185	3 lines below table	Change reference to Figure IV.3.25(a) to Figure IV.3.24(a).
220	Line - 11	Change 'revision' to 'reversion'
228	Solution, line 3	Change 8 to 6
230	Line 2	Change 'less' to 'more'
251	Below (IV.5.6)	Change 'asset's' to " assets' "
255	(IV.5.14)	Delete redundant ')'
264	Lines 1 and 3	Change 27 April 2007 to 27 April 2008
267	Line - 5	Change '1-day' to '10-day'
273	Line 3	Delete 'short'
284	Line 1	For clarity, insert 'so $k = 2$ in this case,' after 'risk factors,'
299	Line 6 of IV.5.5.7	Change 'these risk factors' to 'the price risk factors' and delete '-vega'
308	Line 6	Change 'the all' to 'all the'
318	FN 14	Delete redundant 'the' after 'But' in 2 <sup>nd</sup> line
324	(IV.6.1)	Insert carat '^' on $\sigma$ , also in following line, and insert 'estimated' before 'standard'
335	Line 5 of IV.6.4.2	Change 1998 to 1988
336	Line 18	'estimates' not 'estimate'
345	Line - 8	'there are' not 'they are'
347	(IV.6.33)	Change '<' to '>'
348	Lines 2 and 3	Interchange 'above' and 'below'
348	Solution Line 10	Change 'overestimate' to 'underestimate' (twice)
348	Last 2 para IV.6.4.6	Replace with paragraphs in appendix
348	Line -1	Insert 'the' before 'probability'
355	Line - 12	Change 'seems' to 'stems'
364	Point 1, line 1	Change 'a' to 'as'
386	2 <sup>nd</sup> displayed equation	Add $(0.5 \quad 0.5)$ just before $\begin{pmatrix} -0.0190 \\ -0.0118 \end{pmatrix}$ and close gap a bit in first $(0.5 \quad 0.5)$
387	1 <sup>st</sup> displayed eqn	Ditto above
390	Line 1, IV.7.5.3	Change 'are' to 'be'
392	Bullet 1, IV.7.5.4	In line 3, change 'and endogenous' to 'an endogenous'
398	FN 56	Insert full stop at end
398	Line - 4	Insert 'have' before 'no historical'

411	Para 3, Line 1	Change 'are well' to 'as well'
421	Line – 1	Change 'appointment' to 'appointed'
425	Line 16	'return' not 'returns'
433	Displayed formula	RAROC should not be italic

## Appendix:

Page 348, last two paragraphs of Section IV.6.4.6 should read as the following, single paragraph:

These conclusions agree with those drawn from the coverage tests, where there were too many exceedances, indicating that the VaR was underestimated rather than overestimated. However, readers are urged to exercise extreme caution when using bias statistics. If returns are *not* generated by a normal i.i.d. process, as assumed for the bias statistics, the results are not valid. In fact, it makes no sense at all to use the bias statistic in this setting. Therefore, before considering the use of a bias statistic, analysts should test their sample of portfolio returns for normality and for i.i.d. behaviour, as explained in Chapter I.4. [NB FN 48 remains as stands]