

Errata

Issued 9 April 2010 (v.2) for
“Basic Ratemaking” Version 3, January 2010
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Chapter 12, pages 214-216: In the section titled “Classical Credibility Approach,” the value from the Standard Normal table should be $Z_{(p+1)/2}$ instead of $Z_{p/2}$.

Chapter 12, page 227: The formula to calculate a trended present rates complement for an indicated rate change when using the loss ratio approach should be:

$$C = \frac{\text{Loss Trend Factor}}{\text{Premium Trend Factor}} \times \frac{(1.0 + \text{Prior \% Indication})}{(1.0 + \text{Prior \% Change})} - 1$$

Chapter 12, page 232: The formula at the top of the page should be:

$$\% \text{ Losses in Layer } (A, A+L) = \frac{\int_A^{A+L} (x-A)f(x)dx + \int_{A+L}^{\infty} Lf(x)dx}{\int_{-\infty}^{\infty} xf(x)dx}$$

Chapter 13, page 254: The Present Value of Premium (column 10) in both **Table 13.16** and **Table 13.17** should be multiplied by the cumulative persistency in Column 7. This changes the values (but not the formula) for column 11 in both tables. The Total profit % should be 4.0% and -1.8% in Table 13.16 and Table 13.17, respectively.

Chapter 14, pages 262-263: The calculation of the proposed fee in **Table 14.2** and **Table 14.3** should be adjusted by the average number of exposures per policy (currently not provided in the text) to convert it from a per exposure fee to a per policy fee (to be consistent with the form of the rating algorithm).

Chapter 14, page 269-270, Tables 14.7 and 14.8:

The exposures for the YY and YN discount combinations are incorrect in **Table 14.7**. They should be 63,375 and 93,250, respectively (per Table 14.4). Once these exposures are corrected, the exposure-weighted average differential across all rating variables is 1.0323 (instead of 1.0314), and the proposed base rate underlying this method is \$217.96 (rather than \$218.15).

The incorrect exposures in Table 14.7 also produce incorrect current variable premium in **Table 14.8**. The current variable premium (column 2) for YY and YN discount combinations should be \$11,538,240 and \$19,758,480, respectively. When the current variable premium is corrected, the weighted average differential across all rating variables becomes 1.0317 (instead of 1.0308). This produces a proposed base rate underlying this method of \$218.09 (instead of \$218.28).

Chapter 14, pages 276-277

In **Tables 14.12** and **14.13**, the premium from non-capped levels should be multiplied by the total % change in column 8 before being summed. Consequently, the revised values in Table 14.12 are: Row 10 = \$975,843; Row 11 = 1.0088; Row 12 = 0.9509; Row 13 = 0.9913; Row 14 = 0.9426. The revised proposed Level 1 differential is 0.8483 (=0.90 x 0.9426). The revised values in Table 14.13 are Row 11 = \$350,972; Row 12 = 1.0225; Row 14 = 1.0327. The Level 1 differential is 0.6713 (=0.6500 x 1.0327), and the Level 3 differential is 1.0843 (=1.0500 x 1.0327).

Chapter 14, page 272: In the sentence above the formula at the bottom of the page, the change in the rate differential for each level of the rating variable should be weighted by the current variable premium, not current variable premium *at the base level*. Numerical calculations in this section are correct.

Chapter 15, page 297, first paragraph: The total receipts for the upcoming policy period are estimated to be \$142,500,000 (not \$142,500). Also in this ISO loss-rated composite rating example, the policy being priced has a limit of \$1M/\$2M, which is not contemplated in the derivation of the rate.

Chapter 15, page 301, Section titled “Expenses,” second sentence: The tax multiplier reflects the cost of premium taxes, and the expense allowance includes target underwriting profit and all other expenses (current language says “the expense allowance represents all other underwriting expenses”).

Appendix D, page D-1, second paragraph: The experience period data is evaluated as of Dec 31, 2016 (not 2015).

Appendix D, page D-2, second-to-last sentence on page: The trend to date is July 1, 2018 (not 2017).

Appendix D, page D-17: The footnote for row 9 should say 1 plus row 8 (not minus row 8).