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Corrections to

Solvency – Models, Assessment and Regulation
Arne Sandström
Chapman & Hall, 2005

Pages 18-19

The text in the book looks like this

Lower part of page 18:

$$\alpha = \frac{z - s^2(1+z)^2}{s^2(1+z)^3} \quad \text{and} \quad \beta = z\alpha$$

Some of the results presented by Campagne (1961, p. 60) are

As stated by Kastelijn and Remmerswaal (1986, p. 33,) Campagne used these results to propose a minimum solvency margin for the EEC of 25% of the net retained premium (and in addition 2.5% of premium ceded; see also Campagne, 1961, p. 59), because such a margin would not lead to unacceptable high ruin probabilities and most companies would be able to meet this standard, particularly if hidden reserves are taken into account. In addition to this, a concept of a minimum margin in absolute monetary units was

and Upper part of page 19:

$\varepsilon = 0.000$	Denmark	France	Germany	U.K.	Italy	The Netherlands	Sweden	Switzerland
NRR%	100	100	100	100	100	100	100	100
$\overline{ER}$	35	38	35	41	44	53	32	42
$\overline{LR}$	51	49	44	50	43	43	61	46
VaRLR	74	97	68	72	83	78	90	83
$\overline{LR} + VaRLR$	109	135	103	113	127	131	122	125
msm	9	35	3	13	27	31	22	25

Notes: NRR% = net retained premium ratio, in %; $\overline{ER}$ = mean net expense ratio, in %; $\overline{LR}$ = mean net loss ratio, in %; VaRLR = value at risk of the loss ratio distribution; msm = minimum solvency margin

introduced. This amount was set to 250,000 u/c A.M.E. (European Monetary Agreement units of account) (see Campagne, 1961, p. 73). One u/e A.M.E. was equivalent to one U.S. dollar.

The minimum solvency margin was thus proposed to be:

Correction:

8th line from bottom on page 18 should be followed by the Table on page 19.

The last paragraph on page 18 "As stated by …" continuous with the text after the Table on page 19.

Page 22

According to the original paper by Campagne 1948 x in formula on top of page 22 should be changed for x + 2.399.

Page 208

Equation (8.3) reads in the book:

8.4.2.1.3 Market Value of the Liabilities

We define a market value, MV, of the transaction, and hence of the liabilities of the insurance contracts as the difference between the instantaneous value (or need) (Equation 8.2) and the future earnings (Equation 8.1):

$$MV = PV\left[BE(TP)\,|\,t=0\right] + PV\left[c_1\Delta SCR_{t=(}\right.$$

$$- PV\left[FE\,|\,t>0\right] + PV\left[c_2\Delta SCR_{t>0}\,|\,t>0\right.$$

$$PV\left[BE(TP)\,|\,t=0\right] + PV\left[c_1\Delta SCR_{t=0}\right.$$

$$+PV\left[c_2\Delta SCR_{t>0}\,|\,t>0\right] - PV\left[FE\,|\,t>\right.$$

$$PV\left[BE(TP)\,|\,t=0\right] + MVM - PV\left[FE\,|\,t>0\right] \qquad (8.3)$$

The equation has been "cut-off" to the right, It should read as follows

$$MV = PV\left[BE(TP)\,|\,t=0\right] + PV\left[c_1\Delta SCR_{t=0}\,|\,t=0\right] - PV\left[FE\,|\,t>0\right] + PV\left[c_2\Delta SCR_{t>0}\,|\,t>0\right] =$$

$$PV\left[BE(TP)\,|\,t=0\right] + PV\left[c_1\Delta SCR_{t=0}\,|\,t=0\right] + PV\left[c_2\Delta SCR_{t>0}\,|\,t>0\right] - PV\left[FE\,|\,t>0\right] =$$

$$PV\left[BE(TP)\,|\,t=0\right]+MVM-PV\left[FE\,|\,t>0\right]. \qquad (8.3)$$

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In equation (A.21) a σ is changed for a s:

A.1.2.1 The Capital Requirement

The part of the total capital requirement from the biometric risk is defined as a summation over line of business ($j = 1, \ldots, L$):

$$C_{br} = k\sigma_{br} = k\left\{\sum_{j=1}^{L} {}_{M}\sigma_{VOL,j} + 0.5\sum_{j=1}^{L} {}_{M}b_j s_{VOL,j} + \sum_{j=1}^{L} {}_{S}\sigma_{VOL,j} + 0.5\sum_{j=1}^{L} {}_{S}b_j\sigma_{VOL,j}\right\} \qquad (A.21)$$

where M stands for the mortality part and S for the sickness and $\sigma_{VOL,j}$ is the volatility in the misspecification of the probability of mortality or sickness.

The formula should read as follows:

$$C_{br} = k\sigma_{br} = k\left\{\sum_{j=1}^{L} {}_{M}\sigma_{VOL,j} + 0.5\sum_{j=1}^{L} {}_{M}b_j\sigma_{VOL,j} + \sum_{j=1}^{L} {}_{S}\sigma_{VOL,j} + 0.5\sum_{j=1}^{L} {}_{S}b_j\sigma_{VOL,j}\right\}, \qquad (A.21)$$

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