ERRATA

Valuation of Life Insurance Liabilities Fourth Edition

February 18, 2015

Page 84

In the table at the bottom of the page, the Deferred Premium columns have some incorrect entries. These columns should be as follows:

	If Mean	If Mid-Terminal
Curtate	Yes	No
Fully Continuous	N/A	No
Discounted Continuous	Yes	N/A
Semi-continuous	Yes	No

Pages 152-153

The formula for **Attained Age Level Reserve Method** should be:

First, the residual is calculated as follows:

$$\frac{\text{\tiny MDBG}}{\text{\tiny $[t]+1$}} V'_{[x]:\overline{n}]} = \frac{ \frac{\text{\tiny $MDBG$}}{\text{\tiny $[t-1]+1$}} V_{[x]:\overline{n}]} \cdot (1+i) - \left[\frac{\text{\tiny GM}}{\text{\tiny BD}} BD_{[x]+[t]} - \frac{\text{\tiny CBD}}{\text{\tiny BD}} BD_{[x]+[t]} \right] \cdot q_{[x]+t} }{1 - q_{[x]+t}}$$

Next, the "payment" is recomputed annually, and is the level annual premium, positive or negative, equal to

$${}^{MDBG}_{\ \ m}P_{[x]+[t]:\overline{n}]} = \frac{\left[{}^{MDBG}AB_{[x]+[t]:\overline{n}]} - {}^{MDBG}_{[t-1]+1}V'_{[x]:\overline{n}]} \right]}{\ddot{a}_{[x]+[t]:\overline{m}]}}$$

where

 ${}^{MDBG}AB_{[x]+[t]:\overline{n}]}= \quad$ present value the guaranteed minimum death benefit over the death benefit payable in absence of the guaranteed minimum death benefit; and

m = the number of future years for which charges for this risk will be collected under the contract (typically the remaining premium paying period).

Finally, the Attained Age Level Reserve is calculated as follows:

$${}^{\textit{MDBG}}_{[t]+1}V_{[x]:\overline{n}]} = {}^{\textit{MDBG}}_{[t]+1}V'_{[x]:\overline{n}]} + {}^{\textit{MDBG}}_{m}P_{[x]+[t]:\overline{n}]}$$

Page 275

The formula for **Authorized Control Level Risk-Based Capital** was changed by the NAIC after this book was published. It now should be:

$$0.50 \cdot \left[C_0 + C_{4a} + \sqrt{(C_{1o} + C_{3a})^2 + (C_{1cs} + C_{3c})^2 + C_2^2 + C_{3b}^2 + C_{4b}^2} \right]$$

where

 C_0 = Asset Risk-Affiliated Amounts;

 C_{4a} = Business Risk - Non Health Portion;

 C_{10} = Asset Risk-All Other;

 C_{2a} = Interest Rate Risk;

 C_{los} = Asset Risk- Unaffiliated Common Stock and Affiliated Non-Insurance Stock;

 C_{3c} = Market Risk;

 C_2 = Insurance Risk;

 C_{3b} = Health Credit Risk; and

 C_{4h} = Business Risk - Health Portion.

The same change has been made to the Chapter 16 workbook. Please see the link to the revised workbook just below the link to this page.