

## Errata Sheet for Solutions Manual for Actuarial Mathematics for Life Contingent Risks, 3rd Edition<sup>1</sup>

- Solution to 8.6: after the first =, the term should be  $\bar{A}_{79}^{02}$ , not  $\bar{A}_{79}^{01}$ .
- Solution to 8.11: the powers in the final line should be  $j, 8 - j, 2 - j, 2 + j$
- Solutions to 8.21(a) parts (ii) and (iii) have been interchanged. Also in current (ii), subscript 10 should be  $t$  in the integrand.
- Solution to 9.4(c): should read  $512/1\,232 = 0.4156$ .
- Solution to 10.14(b): in line 4 the exponential term should be  $e^{0.0005t}$ , giving

$${}_{20}p_{60:55}^{00} = 0.78292 \times 0.87079 \times 1.01005 = 0.68861.$$

- Solution to 10.14(d): the change in (b) means that  $\bar{a}_{60:55:\overline{20}|}^{00} = 11.6733$  and hence  $P = \$6\,969.90$ .
- Solution to 10.14(e) has  $\bar{A}_{xy}^{13}$  and  $\bar{A}_{xy}^{23}$ , but subscripts should be single lives.
- Solution to 10.14(g): the change in (c) means that  ${}_{19.5}V^{(0)} = 146\,374$ .
- Solution to 13.3(a): the third solution (i.e. for NPV(2)) should be  $-\$4123.85$ , not  $-\$4067.02$ .
- Solution to 17.1(b) should have  $c \ddot{a}_{60:\overline{10}|_{i^*}} = 7.2708c$ , giving  $c = 0.63$ .
- Solution to 17.5(b): in part (i) the cost of the hedge brought forward should be

$$\frac{11\,701}{{}_{\frac{1}{12}}p_{60:\frac{1}{12}}} = 11\,704,$$

leading to a rebalancing cost of  $-\$112$  and an EPV of  $-\$1189.09$ . In part (ii), the corrected rebalancing cost of  $-\$112.35$  leads to a profit, given survival, of 290.43, an unconditional profit of 290.27, and a profit margin of  $-1.12\%$ .

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<sup>1</sup>Last updated on 3 October 2024