

Solutions to 2006 -2010 EA-1 Exams

Errata

March 4, 2013

Page 82, solution to 2008 Exam, question 27

Starting on line 8, the solution should change as follows. Specific corrections are highlighted.

and its volatility is $\bar{v}_L = \frac{5}{1.05}$. The present value of the asset cash inflow is

$$PV_A = X(1.05)^2 \cdot v^2 + Y(1.05)^{10} \cdot v^{10} = X + Y,$$

and its volatility is $\bar{v}_A = \frac{2X + 10Y}{X + Y(1.05)}$.

Recall that successful immunization required $PV_A = PV_L$, $\bar{v}_A = \bar{v}_L$, and $\bar{c}_A > \bar{c}_L$, which is assumed. Thus we solve for X from the equations

$$\begin{aligned} X + Y &= 7835.26 \\ 2X + 10Y &= 5(X + Y), \end{aligned}$$

which solves for $X = 4897.04$.

ANSWER D