

Solutions to 2008 EA-1 Exam

Errata

May 12, 2010

Page 26, solution to 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