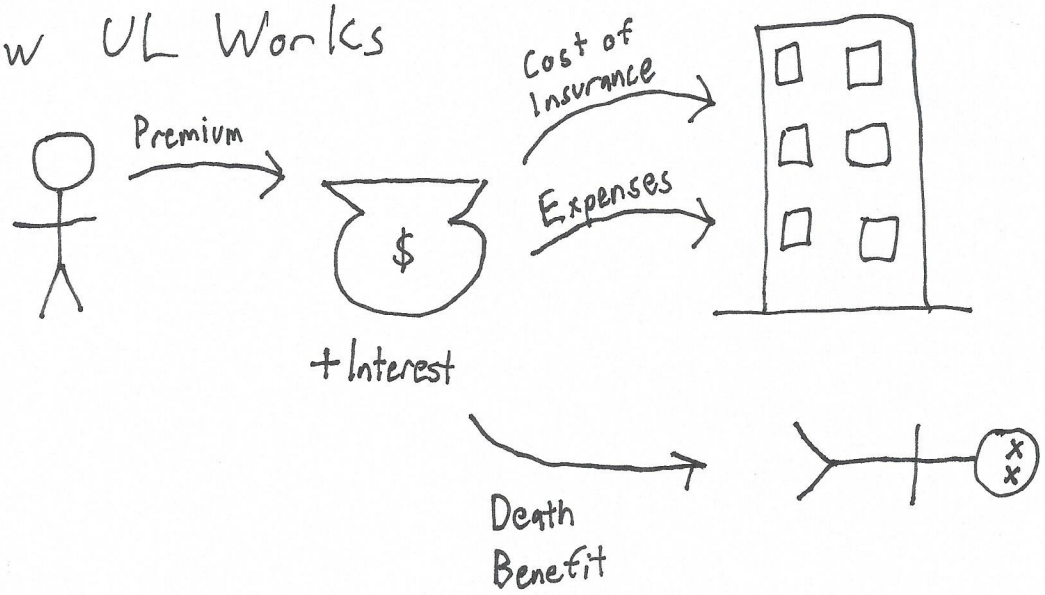
MLC #297

How UL Works



$$ {}_{k+1}AV = ({}_kAV + G_k - e_k - Col_k)(1 + i_k^c) $$

$$ Col_k = v_q \, q_{[x]+k} (FA_{k+1} - {}_{k+1}AV) \quad \text{type A} $$

$$ {}_{k+1}AV = ({}_kAV + G_k - e_k)(1 + i_k^c) - q_{[x]+k}(FA_{k+1} - {}_{k+1}AV) \quad \text{since } i^c = i^q $$

$$ {}_{20}AV = 0 $$

EPV Deposits = EPV Withdrawls

$$ .95P\,\ddot{a}_{50:\overline{20}|} = 50\,\ddot{a}_{50:\overline{20}|} + 100\,000\,A^1_{50:\overline{20}|} $$

$$ A^1_{50:\overline{20}|} = A_{50} - {}_{20}E_{50} \cdot A_{70} = .24905 - (.23047)(.51495) = .13037 $$

$$ \ddot{a}_{50:\overline{20}|} = \ddot{a}_{50} - {}_{20}E_{50} \cdot \ddot{a}_{70} = 13.2668 - (.23047)(8.5693) = 11.2918 $$

$$ P = \frac{50(11.2918) + 100\,000(.13037)}{.95(11.2918)} = 1267.95 $$

E