

Option 1: $W_1 = 50$ with Prob = 1 $E(W_1) = 50$

Option 2: $W_2 = 0$ with Prob = 0.5 $E(W_2) = 0.5 \times 0 + 0.5 \times 100 = 50$ 100 with Prob = 0.5

Expected Utility of Wealth = $E[U(W)] = \Sigma Prob \times U(W)$

 $E[U(W_1)] = U(50)$

 $E[U(W_2)] = 0.5 \times U(0) + 0.5 \times U(100)$