

	S1	S2	S3	
C1 (Renovate) (in \$1000)	50 120	-10 160	130 0	160
C2 (do nothing) (in \$1000)	170 0	-70 120	100 30	120
C3 (sell) (in \$1000)	50 230	50 0	-20 150	230
	170	50	130	

(a)

Criterion of pessimism (minimax) C1

(b)

optimism (maximax) C2

(c)

regret C2

(d)

Hurwicz

$$C_{opt} (\max p_0) + (1 - C_{opt}) (\min p_0)$$

$$C1: p(130) + (1-p)(-110) = 240p - 110$$

$$C2: p(170) + (1-p)(-70) = 240p - 70$$

$$C3: p(50) + (1-p)(-60) = 110p - 60$$

$$240p - 70 = 110p - 60 \Rightarrow 130p = 10 \Rightarrow p = \frac{1}{13}$$

$$\text{when } 1 \geq p > \frac{1}{13} \quad C2$$

$$0 \leq p < \frac{1}{13} \quad C3$$

$$p = \frac{1}{13} \quad C2 \text{ or } C3$$