**Theorem 2.1**

The equilibria $(p^*, q_1^*, q_2^*)$ and the equilibrium payoffs $E_i^* = E_i(p^*, q_1^*, q_2^*)$, $i = 0, 1, 2$, of the game described above are as follows:

(i) If $\frac{d_1}{b_1+d_1} \cdot \frac{1}{1-\beta_1} + \frac{d_2}{b_2+d_2} \cdot \frac{1}{1-\beta_2} \leq 1,$ (2.9)

$$\frac{d_1}{b_1+d_1} \cdot \frac{1}{1-\beta_1} \leq p^* \leq 1 - \frac{d_2}{b_2+d_2} \cdot \frac{1}{1-\beta_2}, \; q_1^* = q_2^* = 0. \tag{2.10}$$

$$E_0^* = E_1^* = E_2^* = 0 \tag{2.11}$$

(ii) If $\frac{d_1}{b_1+d_1} \cdot \frac{1}{1-\beta_1} + \frac{d_2}{b_2+d_2} \cdot \frac{1}{1-\beta_2} > 1,$ there are four cases: (2.12)

If $\beta_1 < \beta_2$ and $\frac{d_1}{b_1+d_1} \cdot \frac{1}{1-\beta_1} \leq 1,$ (2.13)

$$p^* = \frac{d_1}{b_1+d_1} \cdot \frac{1}{1-\beta_1}, \; q_1^* = \frac{1-\beta_2}{1-\beta_1}, \; q_2^* = 1; \tag{2.14}$$

If $\beta_1 < \beta_2$ and $\frac{d_1}{b_1+d_1} \cdot \frac{1}{1-\beta_1} > 1,$ (2.15)

$$p^* = 1, \; q_1^* = q_2^* = 1; \tag{2.16}$$

If $\beta_1 > \beta_2$ and $\frac{d_2}{b_2+d_2} \cdot \frac{1}{1-\beta_2} \leq 1,$ (2.17)

$$p^* = 1 - \frac{d_2}{b_2+d_2} \cdot \frac{1}{1-\beta_2}, \; q_1^* = 1, \; q_2^* = \frac{1-\beta_1}{1-\beta_2}; \tag{2.18}$$

If $\beta_1 > \beta_2$ and $\frac{d_2}{b_2+d_2} \cdot \frac{1}{1-\beta_2} > 1,$ (2.19)

$$p^* = 0, \; q_1^* = q_2^* = 1. \tag{2.20}$$

The equilibrium payoffs are obtained by inserting the equilibria into (2.4), (2.5) and (2.6).

**Proof**

(i) For $q_1^* = q_2^* = 0$ (2.8b) and (2.8c) are equivalent to

$$d_1 - (b_1+d_1)(1-\beta_1)p^* \leq 0 \quad \text{and} \quad d_2 - (b_2+d_2)(1-\beta_2)(1-p^*) \leq 0.$$

These lead immediately to the assertion.

(ii) If $\beta_1 < \beta_2$ and $\frac{d_1}{b_1+d_1} \cdot \frac{1}{1-\beta_1} \leq 1,$ (2.8a) is satisfied iff