

x_2^* is chosen by firm 2

$$\begin{aligned} u_1(x_1, x_2^*) &= x_1 \max \{ T - x_1 - x_2^*, 0 \} - cx_1 \\ &= \underline{x_1} \max \{ (T - x_2^*) - \underline{x_1}, 0 \} - \underline{cx_1} \end{aligned}$$

$$x_1^* = (T - x_2^* - c)/2$$

best response of firm 1 to x_2^*

$$x_2^* \geq T - c \quad x_1 \max \{ T - x_1 - x_2^*, 0 \} \leq cx_1$$

$$u_1(x_1, x_2^*) \leq 0 \rightarrow x_1^* = 0$$

$$R_2(x_1^*) = \begin{cases} (T - c - x_1^*)/2 & \text{if } x_1^* \leq T - c \\ 0 & \text{if } x_1^* \geq T - c \end{cases}$$

$$x_1 \mapsto R_2(x_1)$$

$$x_2 \mapsto R_1(x_2)$$

