Shared states:

$$Q = \{\, 0, 1, 2, 3 \,\}$$

Thread 1:

$\Sigma_1 = \{\, 1, 2 \,\}$

$\Delta_1 = \{\, f_1 : (0, 1) \rightarrow (1, 2)\,,$
$\qquad\quad f_2 : (3, 2) \rightarrow (0, 1) \,\}$

Thread 2:

$\Sigma_2 = \{\, 4, 5, 6 \,\}$

$\Delta_2 = \{\, b_1 : (0, 4) \rightarrow (0, \varepsilon)\,,$
$\qquad\quad b_2 : (1, 4) \rightarrow (2, 5)\,,$
$\qquad\quad b_3 : (2, 5) \rightarrow (3, 46) \,\}$

$$q^I = 0$$