digraph {

"" [shape=none]

"q0" [shape=doublecircle]

"q4" [shape=doublecircle]

"" -> "q0"

"q0" -> "q1"[label="a", weight="a"];

"q1" -> "q0"[label="b", weight="b"];

"q1" -> "q2"[label="b", weight="b"];

"q2" -> "q0"[label="a", weight="a"];

"q2" -> "q3"[label="a", weight="a"];

"q3" -> "q4"[label="a", weight="a"];

}