Figure 8

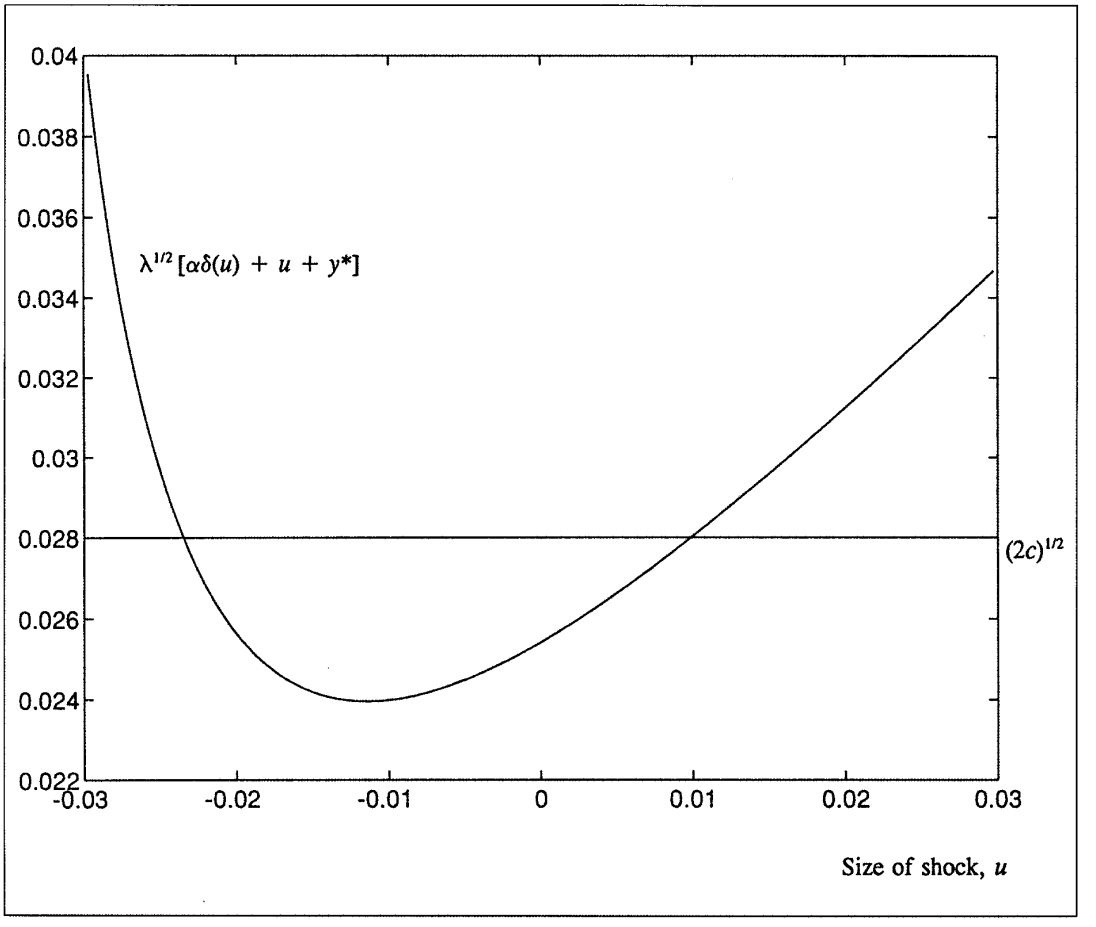

Figure 8 illustrates the possibility that there are multiple equilibrium thresholds. In the figure, there are two intersections of the function $\alpha\delta(u) + u + y^*$ with the (transformed) devaluation cost $\sqrt{2c}$. (The parameters underlying the figure are $\alpha = 1$, $\theta = 0.15$, $y^* = 0.01$, and $\mu = 0.03$ [1].) One threshold occurs at $\overline{u} = 0.0099$, and at it, the associated expected depreciation rate is $\delta(0.0099) = 1.23$ percent per period. The second equilibrium threshold is at $\overline{u} = -0.0234$. There, expected depreciation is $\delta(-0.0234) = 5.71$ percent per period. At this high expected depreciation rate, wage inflation creates a competitiveness problem and unemployment so painful that a devaluation will occur unless the output shocks hitting the economy are quite favorable. Thus, the relatively low credibility of the authorities in the second equilibrium is self-validating [2].

Economists so far have little to say about which particular equilibrium will occur in a situation where several are possible. In this model, however, any random event could trigger a shift from an equilibrium in which markets view devaluation as unlikely to one in which they view it as very likely. Figure 8 shows that the shift could even be from a situation where devaluation is viewed as impossible to one in which it is viewed as a near certainty. Such a shift would be accompanied by a sharp rise in

(1) The choices $\alpha = 1$ and $\theta = 0.15$ make $\lambda = 0.87$, which corresponds to a rather accommodative government. With distributions for u more complicated than the uniform, however, multiple equilibria (sometimes more than two of them) can arise under much less accommodative governments. See Obstfeld (1991).

(2) For the chosen parameters, note that when the public expects discretion to be exercised at $u = -0.03$ and above, the monetary authority has a substantial incentive to devalue, not revalue, even when $u = -0.03$. (Apply (34) and (35).) Thus, there was no loss of generality in assuming from the outset that revaluations never occur.