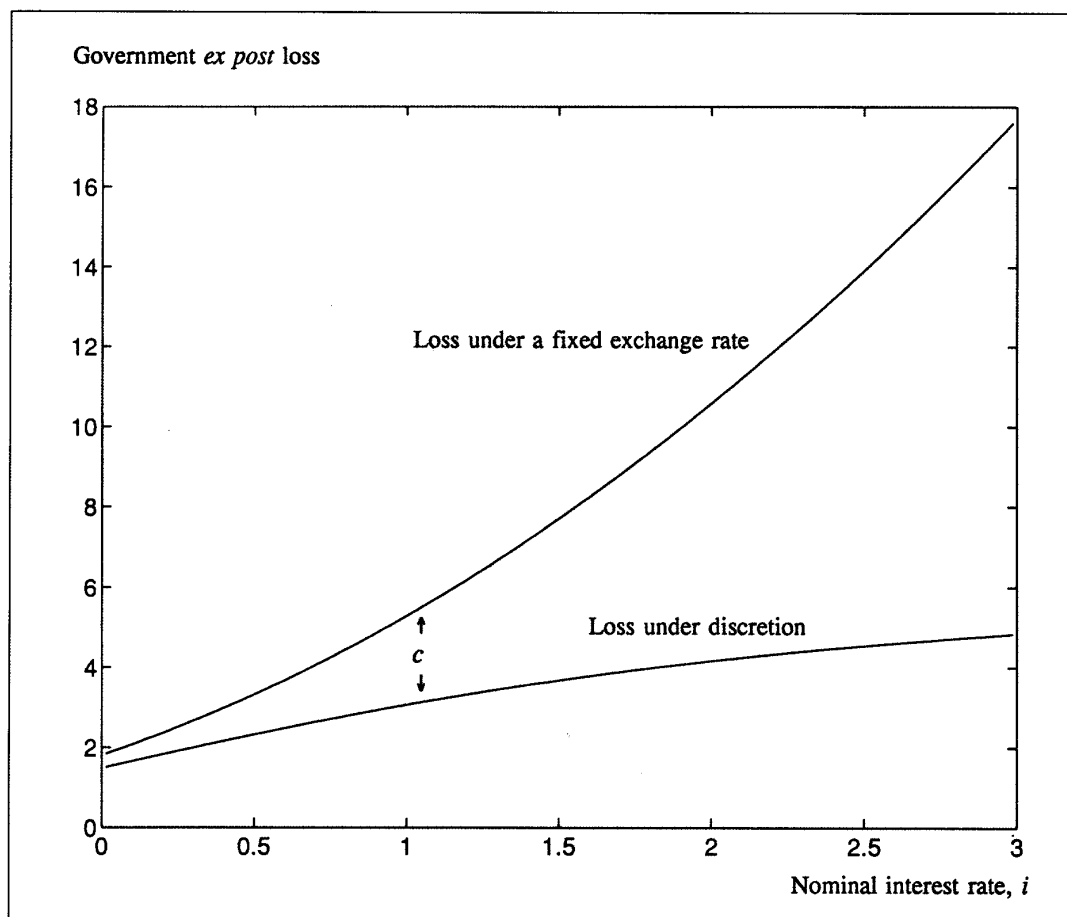


The Logic of Currency Crises

$$(21) \quad \mathcal{L} = \frac{1}{2} \tau^2 + \frac{\theta}{2} \varepsilon^2 + cZ \quad (Z = 1 \text{ if } \varepsilon \neq 0, Z = 0 \text{ otherwise}),$$

rather than (15). In figure 6 I have calculated how the original loss function (15) rises with the nominal interest rate under the purely discretionary regime analyzed so far, in which ε is given by (20), and under a fixed exchange rate, in which ε is constrained to be 0. (The parameter settings are the same as in figure 5.) Given the expectations embodied in the period 1 interest rate i , the loss under discretion is below that under a fixed rate, and the relative disadvantage of maintaining a fixed rate rises with i . Once the excess loss of a fixed exchange rate exceeds c , the government will find it optimal to devalue. The figure shows a value of c such that two distinct outcomes are possible. The first is that the bond market expects no devaluation, in which case the nominal interest rate is set at i^* and, indeed, no devaluation occurs.

Figure 6



The second possibility is a direct consequence of the existence of two equilibria under pure discretion. Suppose the market expects the currency to be devalued at the rate ε_2 shown in figure 5, and sets the nominal interest rate at the corresponding level i_2 . Then the government will be induced to carry out the anticipated devaluation, the realignment cost c notwithstanding. This is a first example of a self-fulfilling speculative attack: there exists an equilibrium in which the exchange parity is viable, but the government is nonetheless led to change the parity simply because private expectations of a change make it too costly not to. Clearly, a sharp fall in c from a previously high level—as may have occurred, for