inflation becomes infinitely undesirable, does a fixed exchange rate become optimal *ex post* ($\lambda \rightarrow 0$)[1]. In general, λ measures the government's willingness to accommodate.

Of course, workers and firms understand the strategy in (27) and set wages accordingly. Equation (24) therefore implies that in a rational-expectations equilibrium

$$w_t = e_{t-1} + \lambda E_{t-1}(u_t/\alpha) + \lambda(w_t - e_{t-1}) + \lambda(y^*/\alpha),$$

or, since $E_{t-1}(u_t) = 0$,

$$w_t = e_{t-1} + \frac{\lambda}{1-\lambda}(y^*/\alpha). \tag{28}$$

Combining (27) and (28) shows that the equilibrium depreciation rate is

$$e_t - e_{t-1} = \lambda u_t + \frac{\lambda}{1-\lambda}(y^*/\alpha). \tag{29}$$

Notice that unless $\lambda = 0$, the economy is afflicted by a systematic inflation bias proportional to the deadweight output loss y^*. This bias results from the government's (in equilibrium, futile) attempts to exploit the potential short-run Phillips trade off due to the predetermination of nominal wages. A fixed exchange rate would eliminate this inflation bias, but it would also prevent the government from responding to unpredictable output shocks. Whether a fixed rate is advisable in light of this trade off is an empirical question.

In practice, governments cannot credibly commit to fix exchange rates between national currencies in all circumstances. A more realistic assumption, as in the last model, is that domestic policymakers face a fixed cost c of realignment, making period loss function in (26)

$$\ell_t = \frac{\theta}{2}(e_t - e_{t-1})^2 + \frac{1}{2}[\alpha(e_t - w_t) - u_t - y^*]^2 + cZ_t, \tag{30}$$

where Z is defined as in (21).

How does the government behave under the loss function (30)? Remember that the government faces a pre-set nominal wage w_t when it decides its exchange rate for period t, and so, a predetermined expected rate of price inflation, $\pi_t = w_t - e_{t-1} = E_{t-1}(e_t) - e_{t-1}$. If the government maintains a fixed exchange rate (thus setting $e_t - e_{t-1} = 0$), (30) shows that its loss is

$$\ell_t^F = \frac{1}{2}(\alpha\pi_t + u_t + y^*)^2.$$

If the government realigns instead, it sets the exchange rate by (27) and incurs the fixed cost c, so its loss is

$$\ell_t^R = \frac{1}{2}(1 - \lambda)(\alpha\pi_t + u_t + y^*)^2 + c.$$

Clearly a realignment will occur whenever

$$\ell_t^F - \ell_t^R = \frac{1}{2}\lambda(\alpha\pi_t + u_t + y^*)^2 - c > 0,$$

that is, when

$$\frac{1}{2}\lambda(\alpha\pi_t + u_t + y^*)^2 > c. \tag{31}$$

Treating (31) as an equality and solving for its two roots, one finds upper and lower values for the shock u, $\underline{u} < \overline{u}$, such that the government devalues whenever $u > \overline{u}$ and revalues whenever $u < \underline{u}$. In either case, the government will set the new exchange rate at the *ex post* optimal level given by (27)[2].

(1) If the government could precommit its exchange-rate reaction function, it would choose the function $e_t - e_{t-1} = \lambda u_t$, that is, it would forswear accommodating wage shocks as well as any attempts to offset predictable real distorsions through currency depreciation. See Obstfeld (1991).

(2) There is no point in setting it at a different level because any new rate is fully incorporated into date $t + 1$ money wages.