**Discussion of Anne Sibert,
"Monetary policy with uncertain central bank
preferences"**
by Lars E.O. Svensson

- Elegant and thorough analysis of the effect of unobservable central bank preferences

- Questionable model and assumptions

  – Loss function
  – Finite horizon
  – Separating equilibria

- More relevant models and assumptions available

- Loss function: Linear in output
$$L_t = \frac{1}{2}(\pi_t - \pi^*)^2 + \chi y_t$$
$$= \frac{1}{2}(\pi_t - \pi^*)^2 + \chi(\pi_t - \pi_t^e)\varepsilon_t$$

  – Indifferent to output variability (counterfactual)
  – More output always better, constant marginal benefit (counterfactual?)
  – Always average inflation bias (when $\chi > 0$) (counterfactual)
  $$\pi_t = \pi^* + \chi$$
  – Equilibrium inflation independent of (current) π_t^e (credibility) (counterfactual?)

- Better: Quadratic
$$L_t = \frac{1}{2}[(\pi_t - \pi^*)^2 + \chi(y_t - y_t^*)^2]$$

  – Output (gap) variability matters
  – Finite optimal output level, y_t^* (potential or above)
  – Cost symmetric around π^*, y_t^* (2nd order Taylor approximation)
  – Average inflation bias only when $E[y_t^*] > E[\text{potential output}]$
  – Equilibrium inflation depends on (current) π_t^e/credibility/reputation

- More "conservative"

  – Lower χ ("Flexible": $\chi > 0$)
  – Lower π^*
  – Lower y_t^* (default: equal to potential)

- Horizon, finite or infinite. Unobservable CB preferences, constant or time-varying

  – Backus-Driffill 1985, Vickers 1986, finite horizon, constant unobservable CB preferences

    * Dynamics of equilibria depend on time to end (counterfactual)
    * Sibert 2001, also changing preferences

  – Cukierman-Meltzer 1986, infinite horizon, time-varying unobservable CB preferences

    * Stochastic steady state
    * Loss function linear in output
    * Confusion of control/observation errors
    * Faust-Svensson 2001
      · Loss function quadratic in output
      · Distinguish control/observation errors.
      · Dynamics of inflation, output, credibility, reputation
      · Transparency as a commitment mechanism

- Loss function with unobservable time-varying preferences
$$L_t = \frac{1}{2}[(\pi_t - \pi^*)^2 + \chi(y_t - y_t^*)^2]$$

$$y_t^* = y^* + z_t$$
$$z_t = \rho z_{t-1} + \theta_t$$

  – Lack of "credibility" $\equiv \left|\pi_{t|t-1} - \pi^*\right|$
  – CB "type" $\equiv z_t$
  – "Reputation" $\equiv z_{t|t-1}$
  – "Signalling"
  – Estimation error $\equiv z_t - z_{t|t-1}$
  – Imperfect control: $\pi_t = $ CB intention + control error
  – "Transparency": Fraction of control error observable by private sector, observability of CB intention, inference of type
  – Commitment mechanism: Increased transparency makes reputation more sensitive to actions

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- Separating equilibria

  – Observe outcome, infer CB type
  – Counter to p. 8, fn. 6, *not* enough to observe action (instrument setting)
  – Observing *action* not enough to infer *intention*
  – In the real world, CB type not precisely known
  – Increased transparency implies increased observability of CB intentions