

McCallum, “Inflation Targeting and the Liquidity Trap”

Discussion by Lars E.O. Svensson

- **Paper**

- **Purpose:** Do issues of liquidity traps, expectation traps and indeterminacy reduce the desirability of inflation targeting?
- **Conclusion:** No, probably not of practical importance

- **Comment**

- **Agree** with conclusion
- **Disagree** with approach, modeling of inflation targeting

- **Approach? Model of inflation targeting?**

- Commitment to “instrument rule”
 - * Commit to a particular reaction function.
 - * Stick to it whatever happens.
- This is *not* how inflation targeting is being done!
Nor is it how inflation targeting *should* be done.

- “Implicit in any monetary policy action or inaction, is an expectation of how the future will unfold, that is, a forecast.

The belief that some formal set of rules for policy implementation can effectively eliminate that problem is, in my judgment, an illusion. There is no way to avoid making a forecast, explicitly or implicitly.” (Greenspan 1994)

- “Inflation targeting is not a [commitment to an instrument] rule. It is ‘constrained discretion’.” (Bernanke and Mishkin 1997)
- “Rarely does society solve a time-consistency problem by rigid pre-commitment... Enlightened discretion is the rule.” (Blinder 1999)
- “Mechanical policy rules are not credible... No rule could be written down that describes how policy would be set in all possible outcomes. Some discretion is inevitable. But that discretion must be constrained by a clear objective to which policy is directed...” (King 1999)

- **Inflation targeting is “forecast targeting”**

- *Not* responding mechanically to (equilibrium) inflation forecasts, “forecast-based instrument rules” (Batini and Haldane)
- *Instead*, treat inflation (and output-gap) forecasts as intermediate targets
 - * *Not* respond mechanically to
 - * *Instead*, put in loss function, choose instrument rate (path) to minimize loss function
 - * Select instrument rate (path) so inflation (and output-gap) forecasts “look good” (fulfill first-order condition)

- Targeting rule: Commitment to do whatever it takes to achieve the target (get the forecast(s) right).

Example 1: Strict inflation targeting, T shortest lag to affect inflation

$$\pi_{t+T,t}(i_t) = \pi^*$$

Ben: Let $\gamma \rightarrow \infty$

$$i_t = \gamma[\pi_{t+T,t}(i_t) - \pi^*]$$

Complete inpracticable, what if mistake?

Instead: Solve $\pi_{t+2T,t}(i_t) = \pi^*$ for optimal i_t

Simple rule of thumb: Adjust i_t in proportion to deviation of unchanged-interest-rate forecast from inflation target

$$\begin{aligned} \pi^* &= \pi_{t+T,t}(i_t) \\ &= \pi_{t+T,t}(i_{t-1}) + \frac{\partial \pi_{t+T,t}}{\partial i_t}(i_t - i_{t-1}) \\ i_t - i_{t-1} &= \frac{1}{-\partial \pi_{t+T,t} / \partial i_t} [\pi_{t+T,t}(i_{t-1}) - \pi^*] \end{aligned}$$

5

Example 2: Flexible inflation targeting

$$\sum_{\tau=0}^{\infty} \delta^\tau [(\pi_{t+\tau,t} - \pi^*)^2 + \lambda x_{t+\tau,t}^2]$$

Targeting rule (Svensson-Woodford 99, “Implementing Optimal Policy through Inflation-Forecast Targeting”)

$$\pi_{t+\tau,t} - \pi^* = -\frac{\lambda}{\alpha}(x_{t+\tau,t} - x_{t+\tau-1,t}), \quad \tau \geq 0$$

Select instrument-rate path $\{i_{t+\tau,t}\}_{\tau=0}^{\infty}$, implement $i_t = i_{t,t}$

- Advantages with targeting rules
 - Uses all information, including judgment
 - More robust than optimal instrument rule
 - Realistic

- Independent review of NZ monetary policy

Alternative 1 (Ben?)

1. Ask Dr Brash to specify the reaction function used
2. Assess reaction function
3. Compare actual instrument with reaction function, assess any deviations

Alternative 2 (Me)

1. Assess quality (precision, bias) of Reserve Bank's forecasts
2. Assess whether inflation and output (gap) forecasts at the time of decisions (conditional on policy settings) look good relative to inflation target and avoid unnecessary output(-gap) movements

7

- Zero bound/liquidity traps/deflationary spiral and the desirability of inflation target?
 - Positive inflation target
 - * Reduce probability of zero bound and liquidity trap
 - Inflation-forecast targeting: Aim at inflation target, react in time to deflationary risks
 - Monitor private-sector inflation expectations
 - * Credibility, $\pi^e \approx \pi^*$, allows negative real interest rate
 - * Fall in π^e provides warning
 - Prepare emergency measures in case bad shocks cause zero bound/liquidity trap/deflation (Svensson JH)
 - * Shift to base operating target
 - * Aggressive open-market and foreign-exchange interventions
 - * The foolproof way of escaping from a liquidity trap (Svensson BoJ)

8

- The foolproof way
 - Price-level target path, above current price level, eliminate “price gap”
 - Temporary peg, real depreciation below long-run equilibrium real exchange rate
 - Jumpstart economy via (1) real depreciation, and (2) fall in short and long real interest rate (via expected real appreciation, inflation expectations)
 - Inflation takes off
 - Abandon peg and shift to price-level or inflation targeting, when price-level target path has been reached
- Nonlinear policy

- **Conclusion:** Inflation targeting eminent way of minimizing risk of zero bound/liquidity traps/deflationary spiral
 - Agree with Ben, but for different reasons