

# Favorite result so far - target criterion for anchoring

Laura Gáti

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My favorite result so far is Equation (1), which is the target criterion in the case of the anchoring model.

$$\pi_t = -\frac{\lambda_x}{\kappa} \left\{ x_t - \frac{(1-\alpha)\beta}{1-\alpha\beta} \left( k_t^{-1} + ((\pi_t - \bar{\pi}_{t-1} - b_1 s_{t-1})) \mathbf{g}_\pi(t) \right) \left( \mathbb{E}_t \sum_{i=1}^{\infty} x_{t+i} \prod_{j=1}^{i-1} (1 - k_{t+j}^{-1} (\pi_{t+1+j} - \bar{\pi}_{t+j} - b_1 s_{t+j})) \right) \right\} \quad (1)$$

There are two main reasons why I think this is a neat result. The first is that it's an intuitive description of the relationship between inflation and the output gap that optimal monetary policy in the anchoring model seeks to bring about. It instructs the central bank to trade off inflation stabilization with current output gap stabilization, plus a term that captures future output gap stabilization, taking the current and expected future stance of learning and anchoring into account.

The second reason is that you can cleanly isolate the effects of learning vis-à-vis rational expectations on the one hand, and anchoring versus exogenous gain learning on the other. Shut down both learning and anchoring and you get the discretionary RE target criterion. Add learning but no anchoring and you get the Molnár and Santoro 2014 result, which is a novel intertemporal tradeoff due to learning. Add anchoring and you get another intertemporal tradeoff that is captured by the term *forecast error*  $\times \mathbf{g}_\pi$ , which says plainly that monetary policy needs to consider the effects of its actions on how anchoring changes with realized inflation. Pretty neat!