

Monetary policy strategy: “Old issues and new challenges”

Joint Deutsche Bundesbank/Federal Reserve Bank of Cleveland Conference
Frankfurt am Main, 6-7 June 2007

Stefan Gerlach

Bank for International Settlements

Discussion of „Money in monetary policy design: ECB-style cross-checking in the New Keynesian Model “

by Günter Beck and Volker Wieland

**Money in monetary policy design:
ECB-style cross-checking
in the New Keynesian Model**

by Günter Beck and Volker Wieland

Comments by
Stefan Gerlach, BIS

- Interesting paper!
- Provides (explores) two potential justifications for the ECB's two pillar strategy.
 1. Direct effect of money growth on inflation.
 - “Two-Pillar” (“money augmented”) Phillips Curve.
 - Since money growth is a structural determinant of inflation in this model, CB should react to it.
 2. Money growth may contain information about unobservables:
 - potential output
 - equilibrium real rate.

Backward-looking model

$$\pi_t = \pi_{t-1} + \alpha_y (y_t - y_t^*) + \varepsilon_{\pi,t}$$

$$y_t - y_t^* = (y_{t-1} - y_{t-1}^*) - \beta_r (i_t - \pi_{t-1} - r_t^*) + \varepsilon_{y,t}$$

$$i_t^{opt} = r_t^* + \pi_{t-1} + \frac{1}{\alpha_y \beta_r} (\pi_{t-1} - \pi^*) + \frac{1}{\beta_r} (y_{t-1} - y_{t-1}^*)$$

- CB will set interest rates on the basis of its perception of y^* and r^* .
- Consider a standard money demand function:

$$\Delta m_t - \Delta p_t = \gamma_y \Delta y_t - \gamma_i \Delta i_t + \Delta \varepsilon_t^{md}$$

- Next, consider “trend” values, and note that the trend change of interest rates and the money demand shock are zero:

$$\mu_t^T \equiv (\Delta m_t - \gamma_y \Delta y_t)^T = \Delta p_t^T$$

- If $\mu_{t-1}^T \neq \bar{\pi}$ on a sustained basis, then the CB must have gotten something wrong:
 - y^*
 - r^*
- To detect this, the authors propose that CB “tests” whether κ exceeds some critical value:

$$\kappa = \left| \frac{\mu_{t-1}^T - \bar{\pi}}{\sigma_{\mu}} \right|$$

- The notion that faulty policy settings leads to excessively high or low money growth is intuitively appealing.
- However, a change in the structural parameters could also lead κ to exceed the critical value.
- Perhaps rationale for “monetary analysis”:
 - Monetary analysis aims at understanding whether money growth reflects demand-side or supply-side developments in the banking system.

- Informal method to estimate unobservables:
 - Can explain the origins of monetary targeting (or use of money as information variable).
- There are more modern and better methods CBs can use now to estimate the unobservables:
 - Kalman filtering – use all endogenous variables.
 - In this case, CB will always react to money growth.
 - That said, not clear that the solution to the information-extraction problem will require CB to react to money all.
 - If not, explanation for why weight on money has fallen?

- Empirical calibration of Kalman filter would be interesting:
 - Can the misperception hypothesis explain the data?
- Sum up:
 - Simple, plausible explanation for why CBs started to look at money.
 - Probably not a good explanation for why they do so today.
 - Interesting to see this worked out in greater detail.