"Managing Volatility in Low-Income Countries: The Role of the Monetary Policy Framework"

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MANAGING VOLATILITY AND INCREASING RESILIENCE IN LOW-INCOME COUNTRIES

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Monetary Policy in Developed and Emerging Countries: A Benchmark

- Its role: to bring about and preserve price stability and anchor inflationary expectations.

- Policy is active: it aims to minimize macroeconomic volatility by identifying and responding to shocks.
  - The policy of choice for stabilization purposes…
  - …with one caveat: the recent crisis.
  - Reflected in the "Flexible Inflation Targeting" strategy adopted by many/most central banks.
  - Little role for monetary aggregates.

Monetary Policy in Low-Income Countries: A Different Story? (1)

- Historically: monetary policy was passive or accommodative.

- More recently, the purpose of monetary policy was to:
  - Bring inflation down from high levels.
  - Reduce fiscal dominance.
  - Dismantle or reduce pervasive distortions in financial and exchange rate markets.

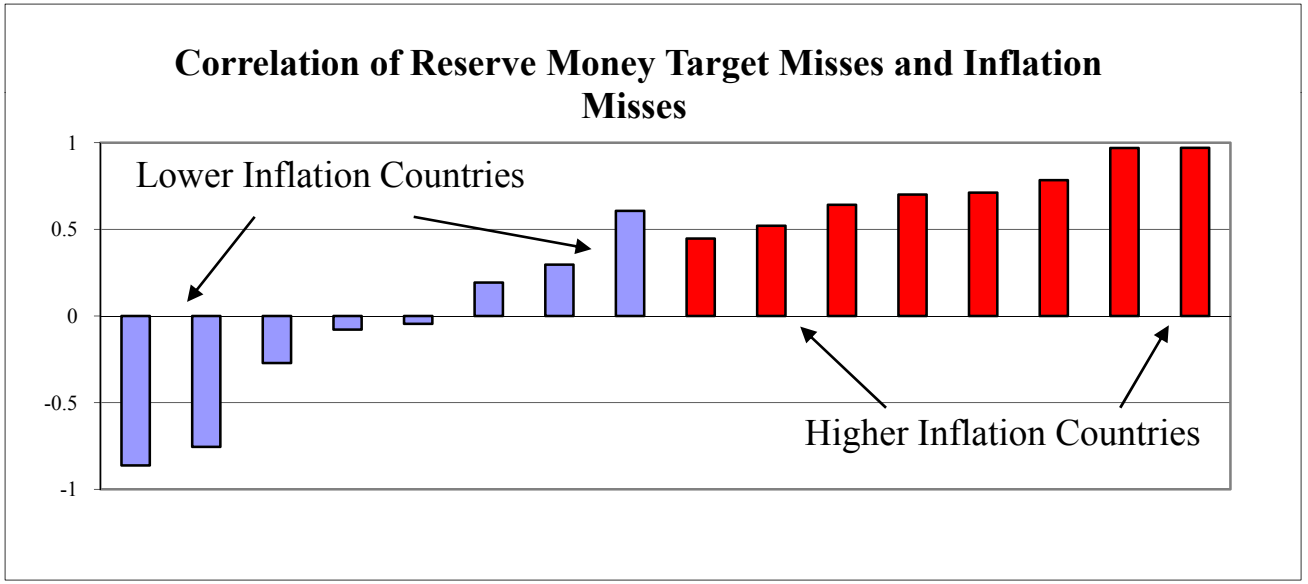
- Policy suffered from lack of credibility. Still the case in some countries (latent fiscal dominance).

Monetary Policy in Low-Income Countries: A Different Story? (2)

- Now, time is ripe for monetary policy in LICs to be active and help manage volatility.
- Yet, current frameworks continue to emphasize intermediate targets (money, exchange rates).
  - Most countries outside CFA zone target money.
  - This made sense during the stabilization phase: money targets serve as signal that stabilization is on track. A "**tripwire**" role.
- Money-targeting remains widespread in "mature stabilizers": countries that have achieved low inflation and a basic measure of stability/credibility

Monetary Policy in Low-Income Countries: A Different Story? (3)

- Considerable flexibility in practice. Targets are often missed, with little cost in terms of inflation surprises (especially for mature stabilizers).



- But policy discussions are often centered around target misses.

Is Money Targeting Consistent with Active Monetary Policy?

- Does some degree of money targeting make sense?
  - Money targeting is not a straightforward exercise of hitting targets.
  - Need to think about what money targeting means and how to make it effective in the face of shocks.

- Berg, Portillo and Unsal (2010): (flexible) adherence to money targets can be optimal, from an active monetary policy perspective (depending on how it's done).

Why Money Matters

- Information gaps are pervasive in LICs:
  - Output and inflation are observed imperfectly and with substantial lags.
  - Financial markets imperfections: observed interest rates may bear only a loose connection to the (latent) interest rate relevant to private sector decisions.

- Monetary aggregates have informational content:
  - Monetary aggregates are measured accurately. No lags.
  - Systematically related to key variables such as output and the interest rate. Subject to money demand shocks.

Berg, Portillo and Unsal (2010)

- We introduce information incompleteness in a standard new-Keynesian model (Svensson and Woodford (2003, 2004)).
- Distinction between ex-ante targets and ex-post adherence to targets.
  - Targets are chosen at time t-1. Ex-ante policy is active.
  - A time t, the central bank only observes the money market.
- Adherence to targets can be thought of as a signal extraction problem:
  - The central bank is using information from the money market to infer the state of the economy and adjust policy.

Analytical Results

- Adherence to money targets should be higher when:
  - Money demand is not (too) volatile,
  - The volatility of real shocks is high,
  - The interest rate channel (of the monetary policy transmission mechanism) is weak.
- Strict adherence to money targets is not optimal: it generates output volatility.
  - Zero adherence is not optimal either!
- As the interest rate channel strengthens, knowledge / information about the state of the economy improves, optimal adherence to money targets declines.

Empirical Results

- We estimate the model for Ghana, Tanzania and Uganda (structural and policy parameters, volatilities).
- We derive the optimal use of monetary aggregates based on econometric estimates of structural parameters and volatilities.
- We Compare "optimal" adherence to money targets with econometric estimates:
  - Uganda is using money market information in an optimal way.
  - Ghana and Tanzania would benefit from paying closer attention to monetary aggregates.
- Model is very stylized. Results are only suggestive.

Monetary Policy (Complete Information)

- Taylor rule for the relevant short term interest rate:

$$R_t^T = RR_t^* + \pi^* + \phi_\pi(E_t(\pi_{t+1}) - \pi^*) + \phi_{ygap} ygap_t$$

- There is always a money growth target (ΔM^T) that is consistent with the active monetary policy described above.

- ΔM^T and ΔR^T represent the "right", active, monetary policy stance.

- This is what the authorities would like to do if they had complete information about the state of the economy.

Monetary Policy (Incomplete Information)

- Ex-ante targets on money growth and interest rates:

$$\Delta M^T_{t|t-1} = E_{t-1}(\Delta M^T_t) \qquad R^T_{t|t-1} = E_{t-1}(R^T_t)$$

- Ex-post:

$$\lambda(R^N_t - R^T_{t|t-1}) - (1-\lambda)(\Delta M_t - \Delta M^T_{t|t-1}) = 0$$

- The term (1- λ) measures the relative adherence to money targets. Two ways of thinking about this equation:
  - λ should be lower when money contains information about the state of the economy:

$$R^N_t = R^T_{t|t-1} + \frac{(1-\lambda)}{\lambda}(\Delta M_t - \Delta M^T_{t|t-1})$$

  - λ should be higher when movements in interest rates matter for the transmission of shocks:

$$\Delta M_t = \Delta M^T_{t|t-1} + \frac{\lambda}{(1-\lambda)}(R^N_t - R^T_{t|t-1})$$

Estimated Lambda versus Optimal Lambda

- Each country's adherence to targets is consistent with their de jure policy regime.

- All three countries should pay close attention to money market developments.

Table 5: Estimated and optimal lambda (λ)

	Ghana	Tanzania	Uganda
Estimated Lambda	0.9285	0.6642	0.3377
Optimal Lambda	0.3634	0.4421	0.3246

- Results are suggestive.

The Ongoing Research Agenda:

- Our treatment of the monetary policy problem in LICs is stylized. Many other important issues: nature of shocks/structure of the economy (O'Connell (2009)).

- Understanding the monetary transmission mechanism in LICs is an important item in the research agenda (Mishra, Montiel and Spilimbergo (2010)).

- Need for modeling frameworks that reflect key features of low income countries.

The Monetary Policy Framework in LICs: Other Issues

- The role of Sterilized Interventions in FX markets (Benes, Berg, Portillo and Vavra (2010)).
  - Managed floats are pervasive.
  - Countries use sterilized interventions alongside interest rate/money targets.
- The interaction of fiscal and monetary policy responses to aid flows (Berg, Mirzoev, Portillo, and Vavra (2010)).
  - How to manage the liquidity injection from spending the local-currency counterpart of aid?
  - Reserves Policy: if aid is put into reserves but fiscal spending increases, private savings will have to increase (crowding out).

Beyond The Short Term: Ongoing Work...

- Short-term policy responses (monetary, fiscal) have implications for the medium term.
  - Combinations of aid-financed fiscal expansions and sustained reserve accumulation may have negative implications for private capital accumulation. (Berg, Gottschalk, Portillo and Zanna (2010)).
- Need for a better understanding of the macroeconomics of debt-financed public investment projects.
  - Joint work with Cathy Pattillo and Edward Buffie.

Thank You