Comments on "An Analysis of Devaluations and Output Dynamics in Latin America Using an Estimated DSGE Model" by Camilo E. Tovar

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Plan of the Presentation

- Introduction
- Identifying Exchange Rate Shocks
- Policy Specification and the Consequence of Omitted Targets
- Minor comments

Introduction (I)

- This paper assesses the consequences of devaluations on output in Chile, Colombia and Mexico
- In doing so, a structural model is derived and estimated for each economy
- There are eight structural shocks that hit the economy
- The model considers the expenditure-switching and the balance sheet effect from exchange rate to output

Introduction (II)

- In this setup, the paper quantifies the impact that devaluations have on output
- The main conclusion is that, when devaluations are trigger by an "explicit and exogenous policy shock", the expenditure-switching effect dominates the balance sheet effect, so devaluations are expansionary in terms of output
- Also, this policy shock is found to be more important than both the foreign interest rate and export demand shock in explaining exchange rate movements

Identifying Exchange Rate Shocks (I)

- To identify the "explicit and exogenous policy shock" that generates a devaluation, the paper relies on the Taylor-type policy rule:

$$i_t - \bar{i} = \omega_\pi \left(E_t \pi_{t+1} - \bar{\pi}_t \right) + \omega_y \left(y_t - \bar{y}_t \right) + \frac{\omega_s}{1 - \omega_s} \left(s_t - \bar{s}_t \right)$$

- Where movements in $\bar{s}_t$ are associated with the "explicit and exogenous devaluationary policy shock". In this case, this shock generates a reduction in the nominal interest rate

Identifying Exchange Rate Shocks (II)

- Comments:

- 1. Policy concerns about exchange rate are not necessarily reflected in the policy interest rate. In particular central banks may use sterilized FX interventions (Domec and Mendoza (2002), Tapia and Tokman (2004)).

  1.1 Also, the fact that a country, like Mexico, has intervened several times since 1996 to 2006 (IMF 2005) may explain the fact that the estimated value of is comparatively smaller and does necessarily implying that this country has a more flexible exchange rate regime.

Identifying Exchange Rate Shocks (III)

- Comments:

- 2. The identification scheme relies on the fact that ω_s is positive. But how can you explain the impact of devaluations in countries like New Zealand and Australia in which ω_s is zero? (Lubik and Schorfheide 2005).

  2.1 Unless there are additional shocks to the exchange rate, the impact of devaluations on output may be, in this framework, negative for New Zealand and Australia.

Identifying Exchange Rate Shocks (IV)

- Comments:

- 3. On the other hand, are shocks to $\bar{s}_t$ really exogenous?. In particular, the CB may target a nominal exchange rate which is coherent with the underlying fundamentals determining the RER (ToT, Relative Productivity,…).

  3.1 In this respect, the target may change as a response to other variables in the economy. Hence movements in the target may be combinations of policy and non policy shocks.

Policy Specification (I)

- Comments:
- If additional policy targets are not included, the estimated "devaluationary policy shock" may contain shocks to this target.
- In particular, if the natural interest rate is time varying, omitted shocks to this variable may be captured by the "devaluationary policy shock"

$$i_t - \bar{i} = \omega_\pi \left(E_t \pi_{t+1} - \bar{\pi}_t \right) + \omega_y \left(y_t - \bar{y}_t \right) + \frac{\omega_s}{1 - \omega_s} \left(s_t - \left(\bar{s}_t - k\varepsilon_t^i \right) \right)$$

Policy Specification (II)

- In this way reductions in the natural rate of interest, rather than “devaluationary policy shocks” may explain contractions in the policy interest rate.

Minor Comments

- The degree of interest rate smoothing is quite low in Chile (contrary to estimates in Soto and Medina (2006) and Caputo et al (2005)
- One reason for this is the use of a nominal interest rate rather than the indexed rate, which was the policy instrument until 1999
- The model lacks consumption, inflation and nominal wage persistence. Those are relevant features for the Chilean economy (and may be also for Mexico and Colombia)
- Why not to use a Bayesian approach?

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