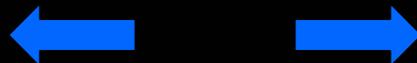




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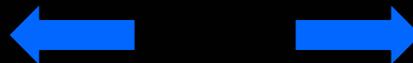
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**Comments on “Do Exchange Rates Matter  
in Inflation Targeting Regimes?...” by  
Felix Hammermann**

**Marcel Fratzscher  
European Central Bank**

*Kiel Workshop on Monetary Policy and Macroeconomic  
Stabilisation in Latin America*

Kiel Institute of World Economics, 11-12 September 2003



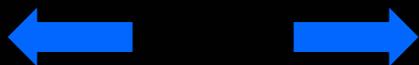
# 1. Motivation and key messages

- Main questions:

- Did central banks in Poland and Chile target exchange rates in the 1990s?
- Has there been a break in the role of exchange rate policy with changes in the *de jure* policy stance?

- Why this question is important:

- Is there evidence of “fear of floating” (Calvo and Reinhart 2000) for emerging/transition economies?
- How is monetary policy actually conducted in an environment of change and uncertainty?
- --> what is degree of monetary policy autonomy



## 2. Modelling strategy

- Use of a monetary policy reaction function augmented by exchange rate (see Clarida, Gali and Gertler 1998):

$$i_t = \bar{i}_t + \gamma(\pi_t - \bar{\pi}) + \lambda(y_t - \bar{y}) + \delta(q_t - \bar{q}) \quad (6)$$

- paper nicely derives that this reaction function is mutually consistent with Taylor rule, MCI and an exchange rate targeting monetary regime

## 2. Modelling strategy

- Empirical VAR model very distinct from theoretical model:

$$i_t = \alpha + \beta_1(y_{t-n}^{foreign}) + \beta_2(p_{t-n}) + \beta_3(y_{t-n}) + \beta_4(NEER_{t-n}) + \beta_5(i_{t-n}) + \varepsilon_t \quad (10)$$

- ordered VAR, following Choleski decomposition, and impulse response analysis

### 3. Main results and messages: Poland

- Structural break for the role of the exchange rate in Poland in early 1998
  - result sensible: in line with the switch to inflation targeting - and before official adoption of floating exchange rate regime
- Output reacts immediately (0-2 months) to exchange rate shock (Fig. 2)
  - somewhat puzzling, given evidence in the literature, also related to J-curve effects

### 3. Main results and messages: Poland

- Pass-through of exchange rates to prices becomes *lower* after 1998 (Fig. 2)
- versus: exchange rate effect on monetary policy (short-term interest rates) becomes *larger* after 1998 (Fig. 3)
  - ----> results seem contradictory and it is hard to see how they can be reconciled
  - Poland's move towards floating and inflation targeting should rather imply the opposite

### 3. Main results and messages: Poland

- Monetary policy reacts to shocks in prices in short-term (Fig. 3)
  - versus central bankers: monetary policy should respond to price shocks only if these are permanent, and taking into account delayed effect of monetary policy on inflation of around 12-18 months (I.e. long run)

## 4. Main results and messages: Chile

- No presence of structural break in 1990s (Fig.4)
  - sensible as Chile adopted some form of inflation targeting as early as 1990
- monetary policy *eases* after positive output shock (Fig. 6)
  - counter-intuitive, at least if output is at or above desired level
- again, monetary policy is found to react to price changes only in the very short-run (0-2 months, Fig. 6)
  - see same point for Poland

## 5. Three suggestions

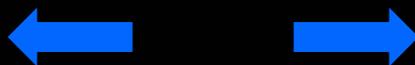
1. Empirical model is too different from what central banks do in the real world

$$i_t = \bar{i}_t + \gamma(\pi_t - \bar{\pi}) + \lambda(y_t - \bar{y}) + \delta(q_t - \bar{q}) \quad (6)$$

versus

$$i_t = \alpha + \beta_1(y_{t-n}^{foreign}) + \beta_2(p_{t-n}) + \beta_3(y_{t-n}) + \beta_4(NEER_{t-n}) + \beta_5(i_{t-n}) + \varepsilon_t \quad (10)$$

- why not implement the central bank reaction function empirically?



## 5. Three suggestions

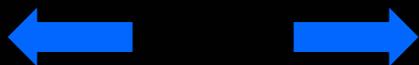
### 1. This is important because:

- central banks don't react to “levels” of prices, output or exchange rates
- central banks with an inflation target likely to react very differently to e.g. a negative inflation shock depending on whether inflation is above or below target level/range
- ---> it may make sense to implement the monetary policy reaction function of eq. (6) also empirically

## 5. Three suggestions

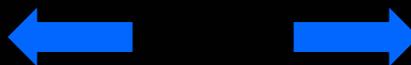
### 2. Econometric model: VECM more appropriate than VAR

- non-stationarity of data (also: price indices likely to be  $I(2)$ ) introduces bias in VAR results
- VECM avoids making exogeneity assumptions
- alternative 1: use Engle-Granger two-step method - check for stationarity of residuals in VAR and then estimate VECM
- alternative 2: use cointegration technique using e.g. Johansen (1988) procedure; allows direct testing of exogeneity plus speed of adjustment to equilibrium



## 5. Three suggestions

3. Question of “monetary policy independence” is at the core of the issue
- more direct test of true degree of monetary independence is to include *foreign interest rate* rather than foreign *real* shock in the empirical model
  - Frankel et al. (2001) show that domestic interest rates often respond strongly to changes in US or euro area interest rates even for emerging markets with relatively flexible exchange rates
  - implication/interpretation: increasing openness and financial market integration leads to *lower* monetary policy autonomy even if more currency flexibility



## 6. Conclusions

- Paper addresses a very relevant question
- many counter-intuitive results may change if
  - (a) true theoretical model is tested, and
  - (b) different econometric approach (VECM) is employed
- some findings interesting, but caution important for drawing policy implications - in particular with regard to the issue of “monetary policy independence” (p.27)



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