

International transmission of Monetary Shocks

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Recent literature

- ▶ **Obstfeld (2015)** studies monetary policy independence in open economies by studying the correlation between domestic interest rates with interest rates of base (foreign) country and exchange rate regime
- ▶ ΔVIX_t to capture unobserved global shocks
- ▶ Interactive dummy for exchange rate regime
- ▶ Findings:
 1. Open economies with flexible exchange rate have considerable monetary policy autonomy in short end of the term structure
 2. Long term rates highly correlated irrespective of the exchange rate regime

Summary

- ▶ Based on empirical evidence, the authors find that capital controls give countries the ability to pursue independent monetary policy
- ▶ They do not find significant evidence that a flexible exchange rate regime confers monetary policy autonomy
- ▶ The authors use the following specification:

$$\Delta i_{i,t}^P = \lambda i_{i,t-1}^P + \gamma_1 r_{i,t}^{P*} + \gamma_2 r_t^{US} + \delta \Delta VIX_t + \varepsilon_{it}$$

- ▶ Dummy variables for each regime combination (capital control as well as nominal exchange rate regime)
- ▶ The authors run an OLS regressions on the above specification in their baseline model to estimate the coeffs. on the dummy

Identification issues

Equation (1) is estimated by OLS on pooled data. This raises three potential issues:

1. Robustness of standard errors
2. Country fixed effects
3. Endogeneity on account of lagged policy rate ($i_{i,t-1}^P$)

Identification I: Robust standard errors

- ▶ POLS ignores the panel structure of the data and treats it as if it were a cross section.
- ▶ The panel structure may induce observations within country i to be correlated in some unknown way, inducing **correlation in ε_{it} within i** .
- ▶ In this context, a natural generalization is to assume “**clustered errors**” and report cluster-robust standard errors.

Identification II: Country fixed effects

- ▶ It would be interesting to test the sensitivity of the results to controlling for country fixed effects.
- ▶ Even in the case where the set of control variables is considered as sufficiently rich, fixed effects models may serve as a prudent precaution against omitted variable bias on account of unobservables.

Endogeneity on account of lagged policy rate $i_{i,t-1}^p$

- ▶ Recall that the baseline specification is

$$\Delta i_{i,t}^p = \lambda i_{i,t-1}^p + \gamma_1 r_{i,t}^{p*} + \gamma_2 r_t^{US} + \delta \Delta VIX_t + \varepsilon_{it}$$

$$\implies i_{i,t}^p = (1 + \lambda) i_{i,t-1}^p + \gamma_1 r_{i,t}^{p*} + \gamma_2 r_t^{US} + \delta \Delta VIX_t + \varepsilon_{it}$$

- ▶ In the context of the dynamic panel specification above, the estimated coefficients in equation (1) may be exposed to the Nickel (Ecta. 1981) bias.
- ▶ Consistent estimates of the parameters would require GMM methods such as those proposed by Arellano Bond (REStud 1991), Blundell and Bond (JE 1998).

Chinn-Ito index

- ▶ De-jure index for capital controls which does not capture easing of capital controls adequately
- ▶ Unable to capture easing in controls which do not constitute a complete removal of restrictions
- ▶ Some of the progress made by EMs to move towards capital openness might not get captured
- ▶ In recent years, measures related to anti-money laundering, anti-terrorist financing introduced
- ▶ Lane and Milesi-Ferretti (2007) provide a de-facto methodology for measurement

Thank you.