



BANK FOR INTERNATIONAL SETTLEMENTS

Discussion of Dedola, Rivolta and Stracca "If the Fed sneezes, who catches a cold?"*

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* The views expressed in this presentation are my own and not necessarily those of the Bank for International Settlements.



What happens if the Fed raises interest rates?

- Examine effects of US monetary policy shock on macroeconomic and financial variables in 36 economies (18 AE, 18 EME)
 1. Estimate US monetary policy shock from BVAR with sign restrictions
 2. Regress macro and financial variables on these shocks
 3. Show impulse responses from these stage two regressions



What happens if the Fed raises interest rates?

- Examine effects of US monetary policy shock on macroeconomic and financial variables in 36 economies (18 AE, 18 EME)
- US monetary policy tightening leads to
 - Decline in output and increase in unemployment around the world
 - Portfolio and banking outflows and lower domestic credit and house prices in EMEs but not AEs



1. Estimating US monetary policy shocks

- Large VAR for US economy

1. Federal funds rate
 2. US CPI
 3. US IP
 4. S&P 500
 5. US corporate bond spread
 6. US mortgage spread
 7. US CP spread
 8. 1y Treasury yield
 9. \$ NEER
 10. Commodity prices
 11. US 3m T-bill – global short term rate
 12. OECD IP
 13. AE stock prices
 14. 3m Euribor
 15. Japanese call money rate
 16. 3m sterling bill rate
- Real economy
- Financial variables
- Link to the rest of the world
- Rest of the world

Total: 16 variables (13 at the time?)



1. Estimating US monetary policy shocks

- A lot of variables

- ➔ do you really need them all?

- Does the Fed really react to UK or Japanese rates? Do you need them at all, given you have the spread to US rates?
 - Can you summarise US financial variables by common factors? (FVAR instead of BVAR)



1. Estimating US monetary policy shocks

Paper manages to explain estimation procedure without a single equation:

*"VAR model is conceived as a **hierarchical model** where **hyperparameters** are assigned a flat **hyperprior** so that maximizing their posterior simply amounts to maximizing the marginal likelihood with respect to them" ... "a **Normal-Inverse-Wishart** distribution is used" ... "**Bayesian shrinkage** is achieved through the combination of **Minnesota, sum-of-coefficients** and **dummy-initial-observation** priors" ... "an **MCMC** algorithm is used ... based on a **Metropolis** step to draw the vector of **hyperparameters** and on a standard **Gibbs** sampler to draw the model's parameters conditional on the former"*



Identification

- Sign-restrictions, consistent with high-frequency results of Gertler and Karadi (2014)
- Two requirements
 - US exchange rate appreciates when Fed tightens
 - Impact on foreign rates react less than unity

??

Why is a positive US monetary policy shock not a positive shocks if other countries loosen policies even further?



Identification restrictions

- Fed funds rate goes up on impact and stays high for 5 months
- US IP falls on impact and stays low for 5 months
- US inflation does not increase 3 months after impact
- 1y US Treasury yields rise on impact and stay high for 3 months
- US mortgage spreads fall after one month
- US CP spreads fall on impact and stay low for two months
- S&P 500 falls on impact
- US NEER appreciates on impact
- US 3m interest rate differential to RoW falls on impact



Identification restrictions

- seem broadly reasonable
- But not clear (to me at least) how they capture effect of asset purchases
- Still, way better than using recursive restrictions!
- Alternative: use innovations for FF futures and bond prices directly



2. Estimating impact of US monetary policy

- Univariate approach: for each non-US variable, estimate ARMA model that incorporates US monetary policy shock



Results

- Forest of many trees (17x36 IR!)
- ➔ Group according to country characteristics

Advanced	Emerging
Pegged exchange rate	Floater
Financially open	Closed
Lot of trade	Closed
Lot of dollar exposures	Few dollar exposures

Based on residence,
not nationality



Split is static and depends on whether country is above or below median

- Dynamic split
- Try McCauley et al dollar zone indicator
- Try top and bottom quartiles



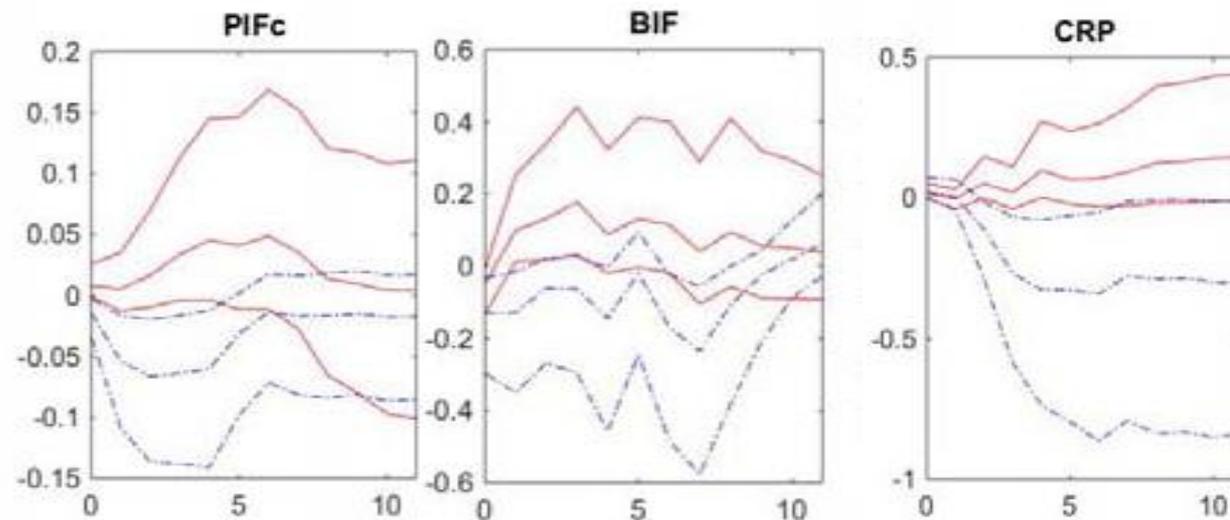
Results

- Exchange rate depreciates, both in nominal and real terms
- Economic activity slows
- EMEs experience capital outflows and credit to private sector contracts. No impact in AEs

- But impact barely outside 1 STD band.
- Not clear whether differences across groups are statistically significant



Zooming in on capital flows to EMEs

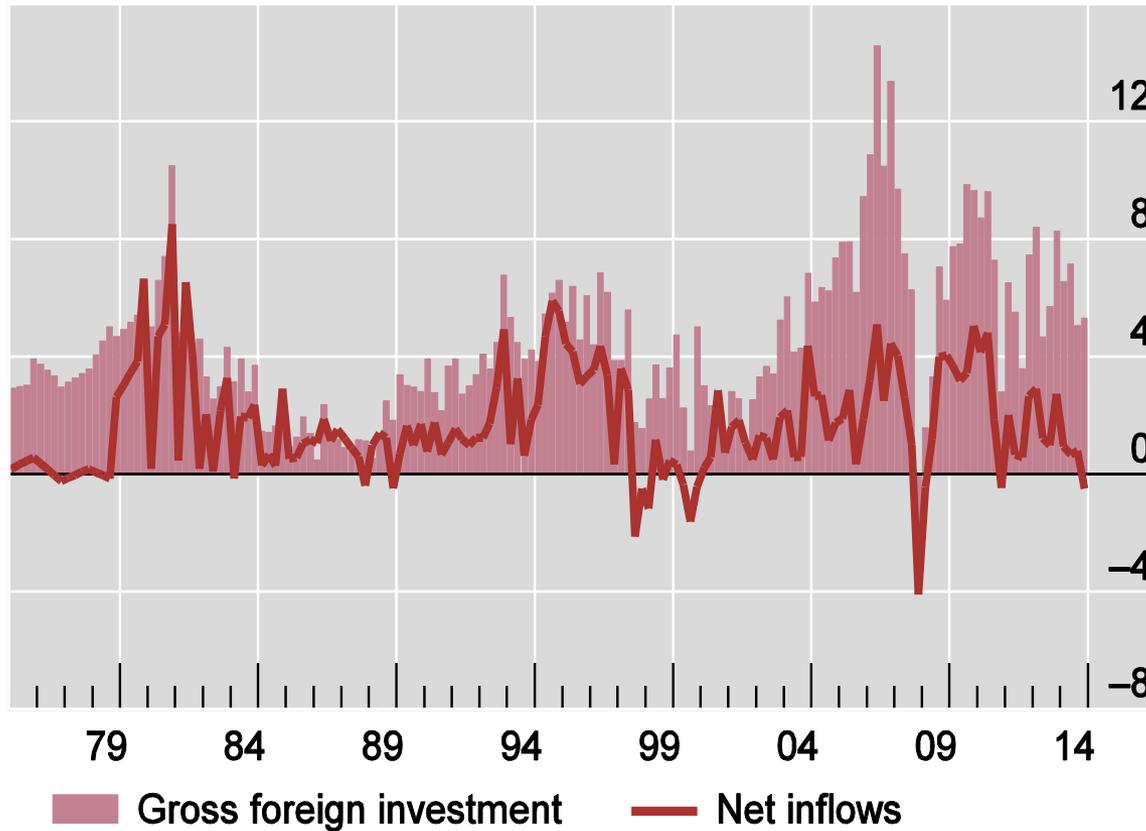


Red solid: AEs, blue dotted: EMEs



Zooming in on capital flows to EMEs

- Important: inflows to EMEs higher than ever!



Zooming in on capital flows to EMEs

- Which countries are particularly affected? ???
 - Countries with dollar pegs (CH, IN, MY, **MX**, PH, TH)
 - Countries with relatively closed capital accounts (but open ones seem all to be small and in CEE)
- Need more work on this in subsequent versions of the paper



Applying to lift-off

- Is lift-off the shock or is postponing lift-off the real shock?
- Is effect symmetric?



Summary

- Interesting topic, well done paper, albeit incomplete and perhaps a bit over-engineered

