

Self-Oriented Monetary Policy,
Global Financial Markets, and
Excess Volatility of International Capital Flows

by

Ryan Banerjee, Michael B. Devereux, and Giovanni Lombardo

Discussion by

Charles Engel

University of Wisconsin

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Motivation for this paper:

- There appear to be large effects on emerging markets of monetary policy changes and financial shocks originating in the U.S. and Europe.
- Capital flows are largely dictated for emerging markets by external developments.
- Emerging market policymakers have expressed concerns about the effects of interest rate changes and financial shocks emanating from the U.S. and other developed countries.
- Floating exchange rates do not seem to insulate countries very well from these shocks.
- Precipitated calls for capital controls and coordinated financial regulation.

What this paper does:

- Produces new evidence that U.S. monetary policy shocks have spillover effects on emerging market exchange rates, GDP, and capital flows
- Builds a 2-country model of a center country and emerging markets. Global banks, located in center country, face equity constraints. Emerging market banks, which are financed by loans from global banks, also face equity constraints.
- Simulations show that under standard Taylor-rule monetary policy, spillovers from the center to the emerging markets are large, whether or not exchange rates float.
- But under optimal policies – cooperative or not – the effects of financial shocks and the spillovers are greatly ameliorated.

The driving force in the model is the “double agency” problem:

The balance sheets of global banks are constrained by a Gertler-Karadi style constraint. Banks’ assets are constrained by an incentive-compatibility constraint. If the stock-market value of the bank is too low, bankers will be tempted to dissolve the bank and walk off with the bank’s assets.

This constraint magnifies the effect of a monetary policy shock, and can also lead to a severe downturn under a “financial shock” (a tightening of the constraint.)

Emerging markets are hit by a double whammy. Emerging market banks receive fewer loans when the global bank is constrained. But that in turn tightens their constraint.

Model Set-Up

Center country:

- Households consume final consumption goods, produced by monopolistic competitors with sticky nominal prices.
- Households receive interest on deposits, wages and profits from center-country firms.
- Final consumption goods are produced using intermediate goods that use capital and labor in production.
- Capital goods are produced and sold to banks.
- Global banks' assets are capital that is rented to producers and loans to emerging market banks.
- Global banks' liabilities are deposits from households
- Global banks face a constraint that their firm value must be greater than some constant times the value of their assets.

Emerging markets:

- Households also consume final goods
- Households purchase center country bonds. (Gov't bonds? They don't show up anywhere for the center country, and center country gov't budget constraint is missing.)
- Households also receive wages and profits of emerging market firms.
- Note that these households do not hold deposits at emerging market banks.
- Production structure is same as center country
- Emerging market banks own capital and rent it to firms.
- Emerging market liabilities are loans from global banks.
- Emerging market banks also face an incentive compatibility constraint analogous to those that center country banks face.

Main results from model:

When center and EME follow standard Taylor rules:

- Center country monetary contraction or financial shock (tightening of constraint) leads to magnified effects on output and investment compared to no constraint case.
- There is a large contraction of financial flows to EMEs.
- EME's currencies depreciate
- Investment falls even more in EME than in center – effects of double agency
- Currency depreciate ameliorates effects on output in EME. When exchange rates are fixed, output drop is greater in EME.

More results from model:

- Spreads rise dramatically in EMEs.
- Currency depreciation worsens the constraint on EME banks because it raises the local currency value of liabilities
- When loans are denominated in local currency, the spillover effects from the center country are smaller, but not a lot smaller.

When center country and EME follow optimal monetary policy:

- Effects of financial shocks in center country are significantly dampened.
- Outcomes are dramatically better in EMEs: output drop is smaller, increase in spreads is smaller, currency actually appreciates
- Here, it is important that exchange rates not be fixed
- The outcomes under non-cooperative policy are not much different than under cooperative policy, suggesting spillovers from optimal policy are small.

Comment: Empirical work and relation to theory

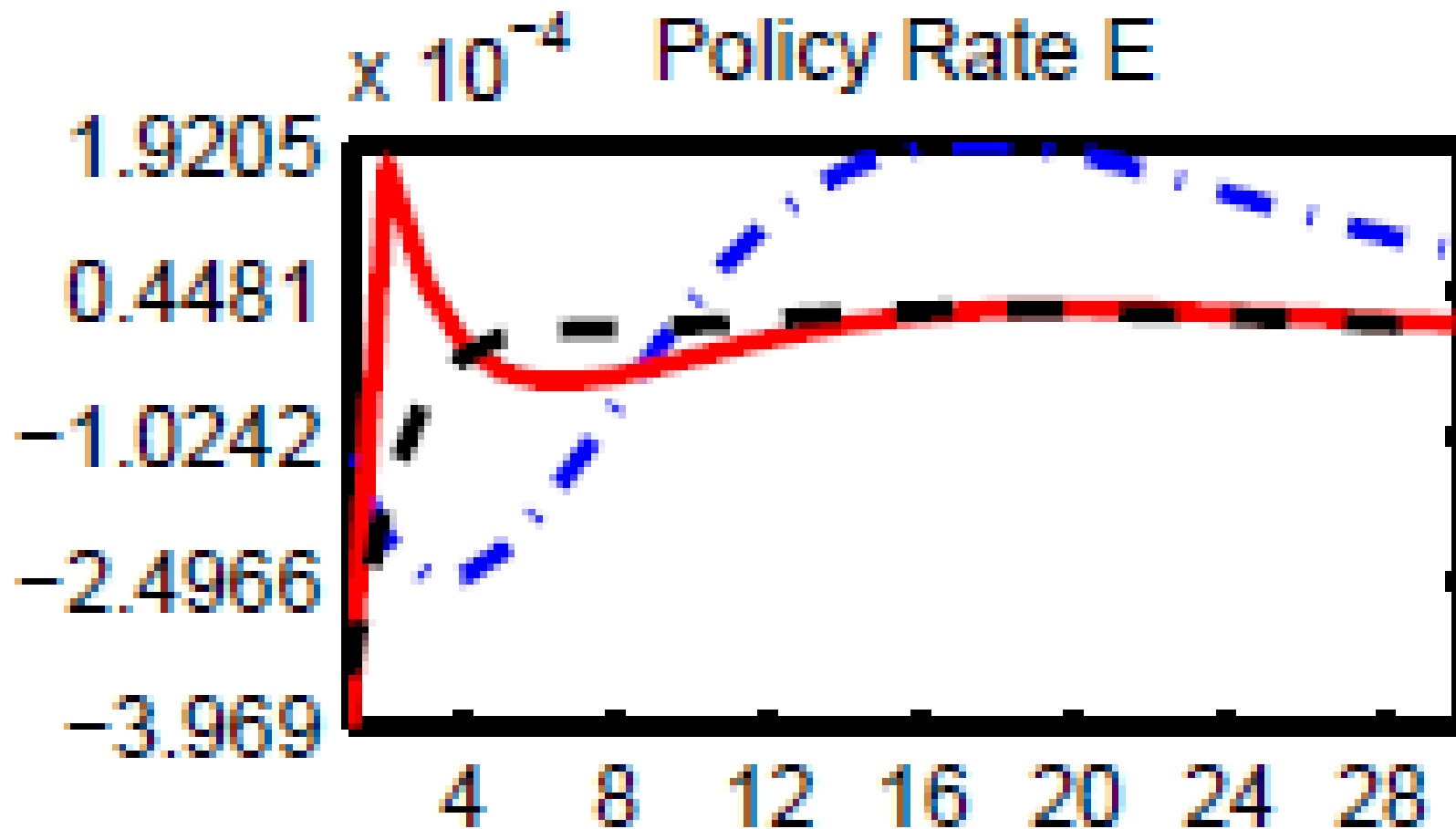
- What is a shock to monetary policy? Is it a random mistake?
- Is it a change in the policymaker's preferences? (If so, might this not be better modeled by a change in the weight given to inflation or other variables in the policy rule?)
- Or is it an unanticipated move by the central bank? That is, markets and central banks are acting optimally with rational expectations, but central bank has more information, some of which is revealed by their policy choice.
- The Romer and Romer measure is based on the forecast error of the Fed's Green Book forecast of the Fed Funds rate. But I understand that "forecast" to be more of a baseline than a forecast. Why not use deviations from Fed funds futures?

Comment/Question: Does EME Policy Matter?

- The main results show that the outcome for EMEs are bad when both countries follow simple Taylor rules. But they are much better when there is optimal cooperative policy, or under optimal non-cooperative policy.
- But how much does the EME monetary policy even matter for outcome in the EME? That is, is the improvement in the EME coming mostly because of the better policy in the center country?
- How would things look if the center country followed optimal (non-cooperative) policy and the EME followed a simple Taylor rule?

Comment: Characterizing optimal policy

- The paper finds that performance is much better under optimal policy than a Taylor rule. This seems important!
- But the paper does not characterize optimal policy in depth.
- How should the instrument relate to observed variables?
- In general, the parameters of an optimal instrument rule depend on the importance of the shocks hitting the economy. As some shocks become more important (their variance increases), the instrument rule changes.
- The paper characterizes impulse responses of the instrument and various endogenous variables when the (only) shock is a financial shock. Does the policymaker have to recognize the source of the shock?
- In any case, I don't understand what the policymaker in the EME is supposed to do. Look at the impulse response:



Red line is EME policy rate under optimal cooperative policy.
 Black-dashed line is under Nash policy game
 Blue-dashed line is under the Taylor rule.

More on characterizing optimal policy

- Some more discussion of the nature of optimal policy would be helpful. Even better would be a simple instrument rule.
- Of course, characterizing the instrument rule under optimal policy is very difficult.
- And it depends on the variance of each of the shocks
- But it would be helpful to try to find a relatively simple representation of optimal policy that expresses the interest rate response to changes in observables like inflation, the output gap and other things. What are the other things? The spread? Capital flows?
- This could be done individually for each type of shock.

More on characterizing optimal policy

- A targeting rule expresses the trade-offs among objectives of policymakers.
- It tells us the weights that should be given to objectives such as inflation, the output gap and other things – such as interest rate spreads or capital flows?
- The optimal targeting rule is generally invariant to changes in the variance of each type of shock.
- For example, the targeting rule might tell us that when financial disruption is less important – spreads are smaller and capital flows more normal – we can focus on inflation, etc.
- It would be helpful to characterize an approximate targeting rule. Can we say what matters for policymakers, in terms of observables?

Comment: Modeling Policymaker Objectives

- Policymakers at the Fed (e.g., Bernanke, Fischer) have said that the Fed is simply trying to meet its internal objectives.
- They assert they are not acting non-cooperatively.
- But this is not cooperative policy either.
- It would be interesting to try to model the outcome of optimal “self-oriented” policymaking. That is, suppose that we posit that policymakers follow an instrument rule that contains only domestic variables. What is the outcome? What is the optimal instrument rule?
- What about even targeting rules, but ones that exclude such “international variables” as exchange rates and capital flows?

Comment: Modeling Policymaker Objectives

- The paper states that under non-cooperative policy, “national considerations alone will dictate policy responses.” But the optimal instrument rule for the EMEs might involve responding to US variables.
- In practical terms, then, might it be the case that the EMEs could follow simple rules that tell them how to adjust the interest rate in response to financial conditions in the US?

Comment: Other policies

The set-up seems tractable for considering other policies and how they might interact with optimal monetary policy:

- Macroprudential policies
- Capital flow management policies
- Direct loans from EME central banks to financial institutions during times of financial stress
- If banks cannot borrow in local currency, is there a role for central bank reserves to help alleviate financial stress?
- Would sterilized intervention be a helpful policy (and effective in this framework)?
- What about at the ZLB?

Comment: Calibration and Estimation

- The parameters of the model are calibrated.
- There are essentially no robustness checks. How much do the outcomes depend on the give parameterization?
- If there is sensitivity, which parameters matter for which results? This could matter for policymakers, especially in the cases where the parameters are not “deep” parameters and could possibly be influenced by policy choices.
- It might be relatively simple to estimate the parameters of the model using Bayesian methods using US data and suitable emerging markets. This could serve as a check on the model, but also, if there are better parameters than the ones chosen, it could influence the nature of the optimal policy prescription.

Conclusions

This is not only a very nice paper, but also a very important one.

Even as it stands now, it is extremely useful for clarifying many of the current debates over spillovers.

With some more work, it could serve as a useful guide for better monetary policymaking.