

**Dealing with the Trilemma:  
Optimal Capital Controls with Fixed Exchange Rates**

**Emmanuel Farhi**      **Iván Werning**  
Harvard University and NBER      MIT and NBER

**Discussion**  
**Fabio Ghironi**

Boston College, Boston Fed, and NBER

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## 45" Summary

- Interesting paper on a very important issue.
- Standard New Keynesian small open economy framework (Galí and Monacelli, *ReStud* 05) modified to have internationally incomplete markets and augmented with taxes on international capital flows (capital controls).
- Perfect foresight exercise:
  - Assume fixed exchange rates, consider a wide menu of shocks, find optimal response of capital controls to individual shocks.
- Exercise performed under wide menu of assumptions on nominal rigidity:
  - Flexible prices, completely rigid prices, one-period sticky prices, Calvo.
    - Sticky wages.
- Main result (over-simplified): It is optimal to use capital controls to regain some measure of monetary independence.
  - No gains from coordinating capital controls across countries.

## Trinities, Trilemmas, and Dealing with Them

- Tommaso Padoa-Schioppa brought the concept of “impossible trinity” to the forefront of the policy debate on monetary unification in Europe (and the associated academic literature) in the late 1980s/early 1990s:
  - It is impossible to have free capital mobility, fixed exchange rate, and independent monetary policy.
- Given the impossible trinity, the trilemma is the problem of choosing two among the three options.
- It seems to me that “Dealing with the trilemma” should be about “How do I make this choice? When is a combination of two feasible options better than another?”
- “Dealing with the trilemma... with fixed exchange rates” has already made a *crucial* choice (in some sense, “dealt with the trilemma”) by assuming fixed exchange rates.
- The policymaker is then left with the dilemma “Do I maintain free capital mobility or do I want some monetary independence?”
- Emmanuel and Iván’s answer is “I want some monetary independence—and I achieve it by maneuvering taxes on international asset transactions to manipulate the interest rate differential.”

# Optimal Monetary Policy in Open Economies

- I think the paper should be put in the context of the literature on optimal monetary policy in open economies that was written between the end of the 1990s and the early 2000s (and continues to be developed now), and even of some older literature.
- Obstfeld and Rogoff (*QJE* 02): Price stability and a flexible exchange rate (FLER) are optimal.
- Benigno and Benigno (*ReStud* 03): Price stability and FLER are optimal *under some key assumptions*.
- Galí and Monacelli (*ReStud* 05): Mostly focus on the scenario under which the key assumptions that make price stability and FLER optimal are satisfied.
  - Dmitriev and Hoddenbough (manuscript, 12): Price stability and FLER are optimal in the Galí-Monacelli model with one-period price rigidity under more general assumptions than Galí and Monacelli consider.

## Optimal Monetary Policy in Open Economies, Continued

- Benigno P. (*JMCB* 09): Incomplete markets: Sizable departures from price stability are optimal if steady-state net foreign assets (or debt) are not zero (large imbalances) and shocks are persistent.
- De Paoli (*JMCB* 09): Complete versus incomplete markets in a small open economy model and role of substitutability.
- Local currency pricing (LCP) can change some key conclusions:
  - See Devereux and Engel (*ReStud* 03). See also Corsetti and Pesenti (*JME* 05) on the role of exchange rate pass-through, and Corsetti, Dedola, and Leduc (*Handbook* 10) for a survey.

## Give FER a Chance

- It seems to me that, for the overwhelming majority of their analysis, Emmanuel and Iván (EI) focus on an environment in which price stability and FLER are optimal—or in which we have no information on *how large* optimal departures from price stability and FLER should be.
  - Even when the exercise is not assuming the Cole and Obstfeld (*JME* 91) knife edge, we do not know how far from price stability and FLER optimal policy would actually be.
- At some level, given the model that EI are using and their assumptions, their exercise can be cast in these terms (as far as what the policymaker is thinking):
  - “I chose fixed exchange rates (FER), but I am realizing I made a terrible mistake. So let me use capital controls to set things straight.”
    - Note: This kind of policy would not be feasible in Europe’s Single Market.

## Give FER a Chance, Continued

- Well, from a policy perspective, in this model, why not ditch FER in the first place? Why should policy be committed to FER to begin with?
  - Possible answer: Because commitment to the country's own optimal policy is not feasible, and commitment to FER is better than discretion (a Giavazzi-Pagano, *EER* 88, argument). But it is not in the paper.
    - See Soffritti and Zanetti (*IJFE* 08) for an exploration of the Giavazzi-Pagano argument in the Galí-Monacelli model.
- I think it would be important to do this policy exercise in a framework in which FER stands a meaningful chance of being the “right” thing to do (at some level, under some circumstances) as part of the country's policy choices.
- In the current setup, that is not clear, and it is no surprise then that the policymaker wants to use capital controls.

## Give FER a Chance, Continued

- For those who are familiar with the New Keynesian literature I mentioned above (and other contributions), it is no surprise that the policymaker wants to use capital controls, and it is no surprise *how* the policymaker wants to use them in response to individual shocks.
- Given results in Benigno and Benigno (*ReStud* 03) and Dmitriev and Hoddenbagh (manuscript, 12), it is also no surprise that there is no need to coordinate capital controls across countries.
- As for LCP, the argument in the paper that it makes no difference is not convincing if one takes the perspective that the analysis of capital controls should be taken as part of analyzing which two ingredients of the “impossible trinity” policymakers should commit to (“dealing with the trilemma”).
  - Whether or not there is LCP may matter for the desirability of FER, and, therefore, for the desirability of capital controls as part of the optimal policy regime.



## What Do Policymakers Have in Mind?

- Magud, Reinhart, and Rogoff (NBER WP, 11) summarize the key concerns of policymakers when considering the option of capital controls:
  1. Fear of appreciation (overvaluation, competitiveness);
  2. Fear of hot money (reversals);
  3. Fear of large inflows (excessive risk taking);
  4. Fear of losing monetary independence (impossible trinity).
- EI focus on item 4, but it is not clear that item 4 is/should be the most important one.
  - EI argue that they address also item 2, sudden stops, and issues related to risk, but I am not convinced of that.

## Overborrowing

- The issue of overborrowing and the use of capital controls as a prudential tool to address it in environments with pecuniary externalities has recently received much attention (Bianchi, *AER* 11; Bianchi and Mendoza, manuscript, 12; Jeanne and Korinek, NBER WP, 10; Korinek, *IMF ER* 11).
- See, however, Benigno et al (Bank of Chile volume chapter, 11, and *JIE* forthcoming), who challenge some of the conclusions in this literature.

# Allocation

- A crucial issue, I believe, has to do with the allocation of external borrowing:
- Giavazzi and Spaventa (volume chapter, 10) point to the misallocation of external borrowing (much of it went to financing housing sector booms) as a key source of Europe's crisis:
  - If borrowing is funneled to financing a non-tradable boom, this can pose challenges for the sustainability of the country's external balance (as it may not generate—or may not be perceived to generate—sufficient revenue from tradable exports in the future).
  - Benigno and Fornaro (manuscript, 12) study this argument formally.
- This is a key problem (reminiscent of the “Dutch disease”) that the literature on optimal capital controls should explore.
  - Lartey (*RIE* 08) studies some monetary policy implications of resource allocation effects of capital inflows in the context of Dutch-disease-type dynamics.

## Back to the Paper: Too Much Stuff

- I enjoyed reading the paper, but there is really too much in it: Way too many cases, way too many results.
- EI should select the nominal rigidity framework they consider most relevant for their purposes, and present that and the associated results. Leave the rest for book material/problem sets for graduate students.

## Why Perfect Foresight?

- Perfect foresight responses to individual shocks: Why?
- The argument in the paper that uncertainty would not matter given the strategy of log-linearizing the model is not quite convincing:
  - It is not clear that log-linearization is appropriate, given the normative nature of the exercise.
    - The New Keynesian (closed and open economy) literature taught us that log-linear approximation of a stochastic model is appropriate for welfare evaluation purposes only under special conditions, which I am not sure are always satisfied here.

## Why Perfect Foresight? Continued

- Why not a Ramsey policy problem under uncertainty?
  - I would find that more informative, given assumptions on the stochastic processes of the shocks.
- What would it imply for the average level of capital controls?
- Would it be optimal to have sizable volatility of international capital taxes over the cycle?
  - If the model implied very small volatility of optimal capital controls for plausible shock processes, we may conclude that a constant level of controls is optimal—something perhaps more feasible in practice than fine tuning controls in response to each separate shock.
  - Besides the monetary policy literature, intuition could build on the optimal taxation literature.

## Why Perfect Foresight? Continued

- While I understand EI's goal to provide qualitative insights in a simple model, I think the value of those insights must be placed in the context of the broader literature on optimal monetary policy in open economies and the qualitative insights that that literature already generated.
- Doing that leads me to think that a Ramsey exercise under uncertainty (even in the same framework as EI are currently using) would be more useful than the current, too large menu of results that are really impossible to evaluate in terms of actual quantitative significance.
  - Schmitt-Grohé and Uribe (NBER WP, 12) do this kind of exercise—with its own issues, as the small economy lends rather than over-borrows in booms in their model...
  - See also De Paoli and Lipinska (manuscript, 12)—although I am not sure the reason for using capital controls in their exercise is the most relevant one.
- Moreover, uncertainty would also allow EI to address issues of risk much more directly than they currently do.

## Capital Controls in Theory and Practice

- Finally, I think the policy prescriptions of all these exercises should confront themselves with the empirical literature on the historical practice and success of capital controls.
- From this perspective, I find Klein (*Brookings* forthcoming) particularly relevant, with the distinction between “walls” (long-standing controls on a broad range of assets) and “gates” (episodic controls on narrower asset classes).
- What do our models have to say about walls versus gates?
- It seems like results that would prescribe cyclical use of controls depending on shock nature would encourage the use of gates.
- Klein’s results provide some reasons for skepticism that we should keep in mind.



## Conclusion

- This is an interesting paper on a clearly important question.
  - The recent change in the IMF's attitude toward capital controls makes the question even more interesting.
- I would:
  - tie the exercise more explicitly to the literature on optimal monetary policy and exchange rate regimes;
  - work with a framework in which FER stands a better chance to be a sensible choice;
  - focus on a Ramsey problem under uncertainty;
  - include some of the issues that are central in ongoing debates.
- I look forward to reading more of EI's work.
- Thank you!