

**Discussion of**  
**External Constraints on**  
**Monetary Policy and the**  
**Financial Accelerator**  
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# 1. The Paper

## 1.1 Exercise

- A Mundellian fixed-versus-flex exercise for a small open economy. Other papers:
  - Schmidt-Grohe and Uribe (2000), Devereux (2000)
- Special feature: External financing constraint (financial accelerator). Other papers:
  - Chang, Cespedes and Velasco (2000a,b)

## 1.2 The Model

- Shares many features with conventional small open economy models:
  - Imperfectly substitutable tradable goods
  - Money and sticky prices
  - Assets:
    - Uncovered interest parity
    - Exogenous foreign interest rate
  - Goods:
    - Law of one price.
    - Exogenous price of foreign produced goods.
    - Exogenous demand for domestically produced goods.
- The main difference is the accelerator. Higher real interest rates now affect demand in two ways:
  - Consumption: Via intertemporal substitution
  - Investment: Via the price of capital, net worth, and the financing premium

## 1.3 Results

Two specific contractionary foreign and domestic shocks cause

- Under fixed rates
  - Larger recessions
  - Lower initial inflation
- With an accelerator
  - Exacerbated recessions
  - Especially under fixed rates

## **2. Comments on the Modelling Framework**

### **2.1. Small Open Emerging Economies**

#### **(i) Goods Markets**

- Large movements in the relative price of tradables and nontradables (Mendoza, Tim Kehoe)
- Very different from US (Engel)
- Suggestion: Use a tradables / nontradables 2-sector model, or a 3-sector model

#### **(ii) Money Demand**

- Money is a more important transactions medium than in the US
- Evidence for non-zero cross-partial in the utility function: Reinhart and Vegh (95)
- Suggestion: Cash-in-advance

### (iii) Bond Market

- UIP version in the text:
  - Requires identical domestic and foreign preferences
  - But that is not assumed
- For very small countries a reasonable assumption is that international investors
  - are risk-neutral, and
  - determine interest rates

- That gives rise to a stronger version of UIP

$$E_t \left[ (1 + i_t)^{\frac{1}{2}} - (1 + i_t^*) \frac{S_{t+1}^{\frac{3}{4}}}{S_t} \right] = 0$$

- Risk neutrality of foreign investors has implications for other aspects of the model (see below)

#### **(iv) Zero Steady State Inflation**

- Built into this model
- Grossly at odds with the facts for emerging markets
- Alternatives:
  - Indexing to steady state inflation
  - Staggered pricing rule, Calvo, Celasun and Kumhof (2001) → endogenous inflation inertia → very different dynamics

## **2.2. Accelerator Models**

### **(i) The Optimal Debt Contract**

External finance premium equation is inserted from another modelling environment with different assumptions (BGG 2000). Potential problems:

1. Even BGG 2000 do not prove contract optimality from scratch
2. Costly state verification may not be the only issue. House (2000) gets different results under adverse selection
3. Emerging markets create a host of special considerations:
  - Risk-neutral foreign lenders should imply indeterminate risk allocation between foreigners and entrepreneurs. That would change the contract
  - What about monetary policy uncertainty?

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  - Lenders have to spend time on "central bank watching" as part of costly state verification
  - Additional source of risk under flexible rates but not under dollarization
  - Optimal contract should be different

### **(ii) Is This A General Equilibrium Model ?**

- This aspect is not totally transparent to me
- The risk premium function is inserted from a partial equilibrium story
- Should solve for the equilibrium risk premium function as part of the general equilibrium outcome of the model
- Equilibrium asset prices and default probabilities should be jointly determined

## **2.3. Interest Rate Rules and Price Level Determinacy**

- In Kumhof (2000) I show that targeting the forward-looking inflation rate instead of the CPI price level can give rise to price level indeterminacy
- The interest rate feedback rule in this paper is likely to suffer from the same problem
- Suggestion: Include a proof of uniqueness

## **3. Comments on the Experiments**

### **3.1. How Strong are the Results?**

#### **Need for Welfare Analysis**

- Difficult to do correctly, have to aggregate welfare of households and entrepreneurs
- But entrepreneurs "very small"
- Could compute just household welfare
- The number is likely to be small (under 0.5%)
- Paper only discusses output contractions. Output booms under sticky price distortions are in fact welfare improving

## **Real Interest Rate Increase Overstated?**

- Foreign nominal interest rate shock: Not clear whether this is the foreign real rate or foreign inflation
- Problem if it's foreign inflation, which is missing from the formula for economy-wide inflation
- This would overstate the real interest rate increase, and the disadvantages of exchange rate targeting

## **3.2. Are We Missing More Important Issues?**

### **(i) Scope of Regime Comparisons in This Paper**

Paper compares fixed rates with one particular form of flexible rates under two specific shocks. This is a little narrow:

- The form of flexibility can matter a lot: E.g. money and inflation targets perform very differently in a cash-in-advance economy under money demand shocks
- Under sticky prices and foreign real shocks flexible rates are bound to do better. The question is by how much relative to issues that are omitted from the model, and which may be much more important:
  - Dependence of form of financial contracts on exchange rate regime
  - Credibility

## **(ii) Credibility**

**Paper would not be a fair comparison of exchange rate and inflation targeting:**

- The inflation target is not a strict levels target, but the exchange rate target is (it's essentially dollarization)
- To level the playing field, could
  - impose strict price level targeting, or
  - allow for a flexible exchange rate target ???

## **Flexibility in emerging markets - some history:**

- 70s/80s: Dirty exchange rate pegs → lots of disasters  
→ search for commitment devices → strong exchange rate rules
- 90s/00s: Dirty CPI pegs, but with a fashionable new name, "inflation targeting"
- That's ok if we no longer need strong commitment devices - but we better be sure of that. In particular:
  - Unsustainable inflation targets are vulnerable to BoP crises: Kumhof (2000)
  - Welfare losses from imperfect credibility are potentially much larger than those based on Mundellian stories: Mendoza (2000)