

Discussion of Bletzinger and von Thadden:

Designing QE for a currency union

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## An important research agenda

- ▶ When is QE more effective than short-term refinancing operations?
- ▶ Will balanced QE work in a heterogeneous currency union?

# Sticky-price currency union

# National governments

- ▶ raise lump-sum taxes locally
- ▶ **issue nominal consols and nominal short-term debt.**
- ▶ receive share of seignorage.
- ▶ local taxes always stabilize debt  $\Rightarrow$  all debt is safe, no FTPL.
- ▶ **fixed maturity structure of gov't debt.**

# Central bank

- ▶ Fix short-term short-term refinancing rate s.t. ZLB.
- ▶ **QE: Purchases of long-term sovereign debt**
  - ▶ may be symmetric (in proportion to country size)
  - ▶ or asymmetric (purchase amount differs by country)
- ▶ **Seignorage revenue**
  - ▶ split in proportion for s-t refinancing
  - ▶ with or without profit/loss-sharing for long-term operations.

# Households

- ▶ consume HOME and FOREIGN tradable good (home bias).
- ▶ work, save in non-interest bearing cash (MIU) and short-term deposits
- ▶ deposits with local banks only (fragmented financial market).
- ▶ **local deposit rate matters for savings decision.**
- ▶ IS curve

$$c_t = E_t \sum_{j=0}^{\infty} [R_{D,t+j} - \pi_{t+j+1}]$$

# Commercial banks

- ▶ link central bank policy and private-sector deposit rate
- ▶ **issue short-term deposits** (funding side) to domestic HH.
- ▶ **invest funds** in:
  - ▶ short-term gov't debt (HOME and FOREIGN)
  - ▶ long-term gov't debt (HOME and FOREIGN)
- ▶ **Imperfect** substitutes (by assumption):
  - ▶ Short and long-term bonds (target for liquidity ratio,  $\nu_1$ ).
  - ▶ Home long-term and Foreign long-term (target FOREIGN share,  $\nu_2$ ).

# Transmission mechanism

- ▶ **Long-term deposit rate** matters for economic activity.
- ▶ Competitive banking market in each country:

$$R_{D,t}^{\text{HOME}} = \omega_1 \cdot R_{CB,t} + \omega_2 \cdot R_{\text{long},t}^{\text{HOME-issued}} + (1 - \omega_1 - \omega_2) \cdot R_{\text{long},t}^{\text{FOREIGN-issued}}.$$

- ▶ Wedges:

$$R_{D,t}^{\text{HOME}} = R_{CB,t} + \nu_1 \cdot [\text{deviation from maturity target}]$$

$$R_{\text{long},t}^{\text{HOME-issued}} = R_{\text{long},t}^{\text{FOREIGN-issued}} + \nu_2 \cdot [\text{deviation from issuer target}]$$

## The main result: Replication

Consider any allocation that would emerge under a policy for short-term refinancing rates under which short-term refinancing rates are unconstrained, but which respects that *deposit rates are non-negative* in both countries. If the union is characterized by

- ▶ **asymmetric transmission** of shocks, then any allocation emerging from an area-wide rule can be **replicated** by a rule on short-term refinancing rates, where the latter are non-negative, and **country-specific QE policies**.
- ▶ **asymmetric shocks**, then **QE policies can be symmetric**. The same is true, of course, if everything is symmetric.

# Comments

# Fiscal policy

- ▶ **Unconventional maturity policy at the ZLB and otherwise.**
- ▶ Perfectly fine-tune deposit rate through debt policy.
- ▶ **Deliver us from evil** (monetary union)!!!
- ▶ How structural are the portfolio adjustment costs?
- ▶ What might the **local governments do** in (light of QE)?

# Fiscal policy

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- ▶ How structural are the portfolio adjustment costs?
- ▶ What might the **local governments do** in (light of QE)?
- ▶ And, why haven't they already done so (regardless of QE or not)?

## Limits of limits to arbitrage?

- ▶ An essential element for asymmetric QE to work is that  $R_{D,t}$  is country-specific.
- ▶ How long will it be before HOME depositors flock to FOREIGN bank, in a financially integrated union?

# Multiplicity

- ▶ **QE “safe to use” in belief-driven equilibria?**
- ▶ Does rule with QE necessarily implement baseline allocation?
- ▶ Does QE necessarily stimulate? Or only **if QE large enough?**
- ▶ Or Mertens-Ravn redux?

## In sum

- ▶ When will **QE be more effective** than short-term refinancing operations?
  - ▶ If imperfect substitutability of long-term and short-term bonds.
  - ▶ **for deep, but not too deep recessions**
    - ▶ Main short-term refinancing rate is at zero.
    - ▶ But the yield curve is not yet flat.
- ▶ Will balanced QE work in a heterogeneous currency union?
  - ▶ Yes, if heterogenous shocks
  - ▶ No, if heterogeneous transmission
- ▶ **Nothing but praise.**