

# Monetary Union begets Fiscal Union

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## Discussion

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This is a very interesting and thought-provoking paper:

- heavy on good theory
- speaks directly to current situation of EMU

EMU is incomplete

- This is understood, at least by some (→ 5PR)
- Details controversial
- Scope for changes ?
  - get clear on benefits from further integration
  - but: understand participation constraints of member countries

## Novel approach to costs and benefits of monetary unions

- **Costs** (see *Mundell*)  
→ **common MP cannot offer country-specific stabilization**
- **Benefits** ( $\neq$  *Mundell*)  
→ benefits from **risk-sharing (via fiscal union)** can be more easily sustained within MU (than under independent MP)  
→ scope for sequential reinforcement of integration steps towards complete MU
- Challenge: **limited commitment**  
→ cross-country transfers (facilitating **risk-sharing today**) to be **backed by credible promises of future reciprocity**

- **Narrow reading:**
  - FP and MP complement each other
  - strong need to activate this complementarity in MU (to compensate for shortage of independent policy instruments)  
(see *Cooper/Kempf: Overturning Mundell: Fiscal policy in a monetary union*, Review of Economic Studies, 2004)
- **Broad reading:**
  - risk sharing (private, public) to complement MP in MU

## Limited commitment via repeated game set-up

Analytics follow 2 step-approach:

- **Stage game** (static welfare maximization)  
→ risk-sharing, stabilization friction: MU vs. independent MP
- **Sustainability of stage game outcomes via trigger strategies**  
(calling for off-path punishments)  
→ benefits from risk-sharing depend on future reciprocity

# Model features: stage game

- **2 country set-up**
- **Welfare objective:**

$$E \left[ \sum_{t=0}^{\infty} \beta^t u(C_T^i, C_{NT}^i, N_t^i) \right]$$

$$u(C_T, C_{NT}, N) = \log(C_T) + \alpha \left( \log(C_{NT}) - \frac{N^{1+\varphi}}{1+\varphi} \right)$$

- **Tradeable sector (T):** non-produced, risky endowment of identical goods; distribution is a function of aggregate state  $s$   
→ scope for risk sharing via state contingent transfers of T goods ("fiscal union")
- **Non-Tradeable sector (NT):** produced with immobile labour  
preset prices, variety of goods, local producers with monopoly power  
→ welfare gains from setting the labour wedge in NT equal to zero
- **First–best: complete risk sharing in T and efficient production in NT**

# Model features: stage game

- **Timing:**

- i) Producers set prices  $P_{NT}^i$

- ii) Aggregate state  $s_t$  realized (determining  $T$ -endowments)

- iii) Governments set transfers  $T^1, T^2$

- iv) Monetary policy sets exchange rate ( $\varepsilon$ ), i.e. the domestic currency price of  $T$ -good

- v) End of period equilibrium

- Monetary policy: **no strategic role**

- Monetary policy: **two regimes**

**Independent MP:**  $P_T^i = \varepsilon^i, i = 1, 2$

**MP in Monetary union:**  $\varepsilon^1 = \varepsilon^2$

# Model features: stage game

- **First-order conditions:** establish a link between  $T$  and  $NT$

$$C_{NT}^i = \alpha \frac{\varepsilon^i}{P_{NT}^i} C_T^i$$

- **Independent monetary policy:**

→  $\varepsilon^i$  can always be set s.t. effective tax wedge within NT sector is zero

→ Efficiency in NT can always be achieved

→ **First-best: monetary and fiscal policy decoupled**

- **Monetary union:**

→  $\varepsilon$  affects average of tax wedges in the two countries

→ **Risk-sharing miracle** : efficiency in NT can be achieved if fiscal union makes both countries 'similar' via full risk sharing

→ **First-best: monetary and fiscal policy interact**



## Model features: sustainability of stage game outcomes

- Assume: i) endowments are ex-ante symmetric and ii) risk-sharing via Markov transfer rules
- Trigger strategies: **autarky (no risk-sharing) forever as punishment if cooperation breaks down**
- **Criterion for sustained risk-sharing** (reasoning of country with high endowment):

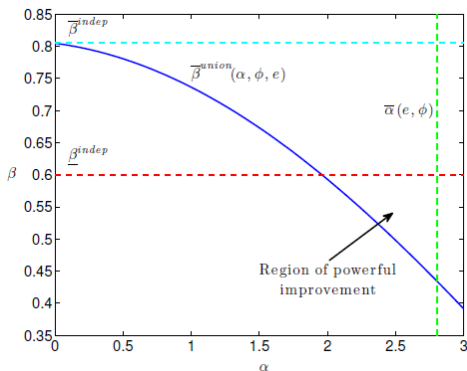
$$\leq \begin{array}{l} \textit{one-shot benefit from refusing the transfer} \\ \textit{expected loss from lack of future risk-sharing} \end{array}$$

- Key feature for comparison between MU vs. independent MP:
  - recall: **Risk-sharing miracle**
  - for any country, **deviation from risk-sharing within MU is more costly than under independence because of the CB's inability in the future to perfectly stabilize the NT sector**
  - **membership in MU imposes an externality on (common) MP which reinforces fiscal cooperation**

# Model features: sustainability of stage game outcomes

"Example of powerful empowerment":

→ Decision to join MU can transport countries from autarky under independent MP to full risk-sharing in a MU



→ *Intuition*: Threshold for discount factor which sustains (full) risk-sharing in a MU declines in  $\alpha$  (size of NT sector)

## Model extension: strategic role of monetary policy

- Reversed timing: **Monetary policy moves first (s.t. it shapes the incentives for risk-sharing)**
  - i) Monetary policy sets exchange rate ( $\varepsilon$ )
  - ii) Producers set prices  $P_{NT}^i$
  - iii) Aggregate state  $s_t$  realized (determining  $T$ -endowments)
  - iv) Governments set transfers  $T^1, T^2$
  - v) End of period equilibrium
  
- Result: **Pro-active MP creates booms in states in which dispersion of T-endowments is high**

→ why? in a boom countries more willing to make transfers

## 1) **Reciprocity** :

- Paper offers a view of '**guarded optimism**'
- Key challenge: **acceptance of transfers today requires trust in future reciprocity**
  - needed for this: current imbalances not to become permanent
  - in this spirit, see *Cœuré* (2015):  
*"Euro area solidarity does not mean permanent transfers. It is about supporting a country which is in difficulty, but only temporarily, and it is conditional on efforts being made to return to balance. The euro area is based on the principle that it is not a transfer union."*

## 1) **Reciprocity** : **Alternative views**

- *Farhi/Tirole:*

Support to programme countries follows a somewhat different logic: if member countries are very different, **ex post solidarity** is reasonable, but this will **not replace agreement on ex-ante risk sharing**

- *Stiglitz:*

Changes are needed, "*but these seem well beyond the politics of Europe today, with Germany still arguing that Europe is not a transfer union.*"

- **Political economy of these views is different:**

→ symmetric relationships between countries (in the initial spirit of EMU) vs. asymmetric relationships

## 2) **Private vs public risk –sharing :**

- **Public risk sharing:**  
is controversial because of severe commitment problems  
but not without alternative:
- **Agenda of Banking Union:**  
→ attempts to bypass as much as possible these problems via  
**private risk-sharing**  
→ 'bail-ins with priority over bail-outs'

### 3) **Exit option** :

- Paper rules out exit, i.e. **fall-back position if cooperation breaks down in MU is autarky (no risk-sharing) within MU**
- Part of the Greek tragedy: some players operated with different threat points (i.e. **outside MU**)
- This dampened the benefits from cooperation stressed in the paper

## 4) **Monetary policy** :

- Claim made in the paper: **MP did too little too late (while it should have been pro-active)**
- Maybe, but there is something missing...
- ...**activation of euro area QE was time-consuming and not trivial since it had to find a design on how to stabilize the EA economy without becoming itself a major source of risk-sharing**
- assignments? lines between MP and FP?



# Summary

- great paper
- heavy on good theory
- policy contribution: powerful, since it offers a big picture where the euro area stands: **current incompleteness, ways forward**