# Discussion of Gertler and Kiyotaki's "Banking, Liquidity and Bank Runs in an Infinite Horizon Economy"

Jordi Galí

CREI, UPF, Barcelona GSE

June 2014

### Motivation

- Persistent macro effects of financial crisis
- Social demand for "forecastability" of crises

# Main Ingredients

- Two intermediation technologies: efficient (banks) and inefficient (households)
- Banks' funding subject to two frictions:
  - (i) upper bound on leverage ratio
  - (ii) cannot issue new equity
- Possibility of bank runs if:

$$(Z_t + Q_t^*)K_{t-1}^b \le R_t D_{t-1}$$

# The GK Model in Perspective

- Macro modelling before the financial crisis
- Rethinking macro models: financial frictions amplification vs. endogenous financial crises
- The GK model
  - amplification of exogenous shocks ("financial accelerator")
  - further amplification if bank run  $\Rightarrow$  non-linearity
  - possibility of bank runs (and bank run driven crises) is endogenous ("predictability"?)

### Comments/Questions

- Bank runs without a "sequential service constraint"
  - run possible only if "insolvency after liquidation"
  - not restricted to banks
  - but no advantage to running first...
- Multiplicity of bank run equilibria? (# of banks)
- ullet Key assumption: convexity of household management costs  $f(K_t^h)$

$$Q_t = -f'(\mathcal{K}_t^h) + \mathcal{E}_t \left\{ \sum_{k=1}^\infty \Lambda_{t,t+k} (Z_{t+k} - f'(\mathcal{K}_{t+k}^h)) 
ight\}$$

Is it plausible?

 What does direct household intermediation represent? Shadow banking system?



### Comments

In the model banks do not lend more because of their "financing constraints"

But the ECB is willing to lend "unboundedly" almost for free! More likely: banks do not lend more because the demand for loans is low

• Forecastability in the GK model: financial crisis more likely...

...after prolonged downturn

...after a persistent decline in value of bank assets

Counterfactual!?

# Concluding remarks

- Contribution: micro-founded bank runs in infinite horizon macro model
- Extension to a richer framework? (capital accumulation, variable inputs, sticky prices...)
- But do bank runs (as modelled) capture the central features of financial crises?