

# 6th Annual Central Bank Workshop on the Microstructure of Financial Markets

A Theory of Endogenous Liquidity Cycles

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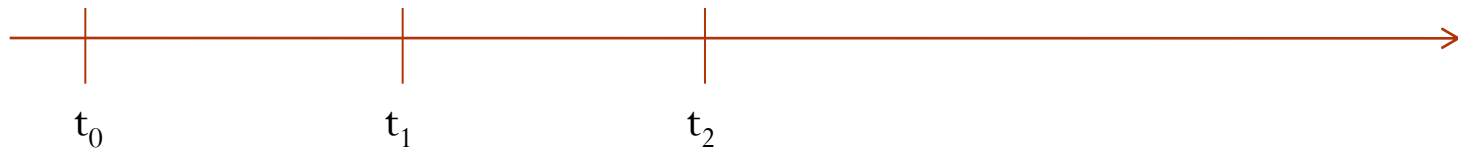
# Guideline

- Background: “Spreads between liquid and illiquid assets are larger in recessions and liquidity crises are typically associated with economic downturns. During the recent economic crisis of 2008-2009, many markets—especially those for securities backed by subprime mortgages—suffered sudden liquidity dry-ups.”
- Aim of the paper: establish a link between market liquidity variations over time on the secondary market and the state of the economy.
- Method: dynamic model of liquidity based on adverse selection.
- Result: fluctuations in liquidity and economic activity arise endogenously and are not driven by exogenous shocks to the economy.

# Description of the model

- Infinite-horizon model with no “noise traders” or “liquidity traders”
- 3 types of risk neutral agents
  - Entrepreneurs:
    - They have access to a private investment technology
    - They live for only one period
    - They have no resources to cover the cost of this project
  - Financiers:
    - They loan capital to entrepreneurs
  - A single investor:
    - He can produce information about the value of the entrepreneurs’ assets
    - He is long-lived repeatedly interact with entrepreneurs

# Timescale of the model



- $t_0$ : the entrepreneur can invest in a risky project.
  - Because of this involvement at  $t_0$  they have an informational advantage over potential buyers ==> adverse selection
- $t_1$ : the entrepreneur observes the future cash flow of the project
  - They have incentive to take excessive risks ==> moral hazard problem ==> they want to sell their projects
- $t_1$ : the investor learn the future cash flow of the project with probability  $\alpha$
- $t_1$ : two-stage bargaining game between the entrepreneur and the investor
- $t_2$ : cash flow realization

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- This model does not take into account the simultaneously side of crisis
- There is only one investor (more or less informed), no noise traders, no liquidity traders
  - Gains from trade?