

# Money and Modern Bank Runs

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# Traditional Bank Run Models

- Diamond and Dybvig (1983)
- Single representative bank
- Real contracts
- Multiple Equilibria:
  - Good equilibrium: First Best
  - Bad Equilibrium: **Bank Run**

# Modern Bank Runs

- Interbank Market
- Nominal Contract
- Net Settlement System
- Funds are transferred from banks with surplus to banks in need via the interbank market.
- Funds stay in the banking system
- No costly liquidation
- NO BANK RUN

# Assumption: Net Settlement System

- **Net Settlement Sytem:**
- Payments accumulate and are cleared at the end of the day
- Economizes on liquidity
- Interbank credit risk
- **Real Time Gross Settlement System (RTGS):**
- Immediate finality of payments
- Interbank credit risk is minimum

# Real Time Gross Settlement

- Mc Andrews & Trundle (2001)
- In the 1980s: Net Settlement systems
- Trend towards RTGS
- In the 1990s: All EU and G10 countries (except for Canada) use RTGS
- Immediate settlement of payments
- UK: Central bank provides additional intraday liquidity **against collateral.**
- US: FED provides liquidity on uncollateralized basis but **interest charged.**

# Interbank Market

- Second bank does not make any loans or deposits at  $t = 0$ .
- Operates only when needed in later periods
- Looks more like a lender of last resort
- Aggregate risk: Only first bank is subject to
- However some shocks affect the whole banking system

# Assumption

- Banks can ensure:
- Short term entrepreneurs store
- Long term entrepreneurs invest

# Market Solution

- Diamond & Dybvig:
- Short asset: Storage
- Long asset:
  - Pays 1 unit if liquidate at  $t = 1$
  - Pays  $R > 1$  at  $t = 2$ .
- Long asset dominates the short asset (from  $t = 0$  to  $t = 1$ )
- Everybody holds the long asset at  $t = 0$
- Depositors gets  $(1, R)$ .

## Market Solution (cont.)

- Skeie (2004):
- Long asset:
  - Pays  $r < 1$  unit if liquidate at  $t = 1$
  - Pays  $R > 1$  at  $t = 2$
- Long asset **does not** dominate the short asset (from  $t = 0$  to  $t = 1$ )
- Market solution:  $(1, R)$  ?

# Overall

- A very nice application of nominal contracts and the interbank market
- Important contribution to the bank run literature
- Might be shorter (68 pages)