Excessive Financial Intermediation in a Model with Endogenous Liquidity

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Discussion:
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June 2012
Objective

• Construct a model in which
  – financial frictions can be relaxed at a cost
  – this cost is interpreted as resources spent on financial intermediation
  – financial intermediation can be excessive
  – this results in optimal financial regulation
Sketch of model: setup

- Two periods
  - \( t = 0 \): endowment, asset trade, investment
  - \( t = 1 \): production, repayment, consumption

- Two types of agents, mass 1 of each
  - producers: endowment \( k \) and productivity \( A \)
  - capital suppliers: endowment \( k \) and productivity 0

- Producers
  - borrow from capital suppliers at \( t = 0 \)
  - can pledge at most \( l < A \cdot k \) units of \( t = 1 \) production
Sketch of model: equilibrium

- Capital suppliers supply $k$ inelastically

- Producers demand capital
  - for $R = A$, demand up to $l/A$ units
  - for $R < A$, demand $l/R$ units (constraint binds)

- In equilibrium

\[ R = l/k \quad \text{and} \quad C = A \cdot 2 \cdot k \]

- Financial frictions lead to low interest rates but do not affect total consumption
Sketch of model: financial intermediation

- Producers can now increase their borrowing beyond $l/R$
  - for every additional unit, spend $\delta$ units of capital

- Capital suppliers still supply $k$ inelastically

- Producers demand capital
  - for $R = A$, demand up to $l/A$ units
  - for $R \in [(1 - \delta) \cdot A, A]$, demand $l/R$ units (constraint binds)
  - for $R = (1 - \delta) \cdot A$, demand any amount above $l/((1 - \delta) \cdot A)$

- In equilibrium

  $$R = (1 - \delta) \cdot A \quad \text{and} \quad C < A \cdot 2 \cdot k$$

- Financial intermediation leads to higher interest rates but lowers output
Intuition

- Financial intermediation leads to inefficient rent dissipation
- As author emphasizes, this result depends crucially on the elasticity of supply of funds
- Consider a small open economy that faces $R^* \in ((1 - \delta) \cdot A, A)$
  - financial intermediation leads to large capital inflows and much higher consumption
- Related to literature on financial development and capital flows
  - Gertler, Rogoff (1990), Matsuyama (2004), Caballero, Farhi, Gourinchas (2008), Broner, Ventura (2010), Martin, Taddei (2012)
The richer model

- Introduce dynamics, producer heterogeneity, and money

- Author explores effects of financial intermediation on *liquidity, nominal prices, financial crises*

- But the connection between the model and these concepts seems unclear
  - the author interprets $R$ as the relative price of inputs instead of the interest rate
  - a financial crisis is a reduction in financial intermediation, taking $R$ as fixed due to some *nominal rigidities*
  - financial intermediation only takes place within a single period (no intertemporal markets)
  - money transfers resources between periods
  - not clear how intratemporal intermediation interacts with money

- Overall, a very interesting exercise, but the connections between concepts in the model and concepts in reality need to be sharpened