

Discussion of

“I Theory of Money”

by Markus Brunnermeier and Yuly Sannikov

Javier Bianchi

Minneapolis Fed & NBER

Central Bank of Korea

Overview

- Goal: a unified framework to study financial stability and price stability

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- Interesting paper at the intersection of money, banking & macro!
- Can't do justice to the paper in 10'..

Outline of Discussion

- Key Mechanisms
- Illustration in Bewley's model of fiat money, based on Sargent-Wallace 1982, Ljungqvist-Sargent, CH 18
 - Outside money only
 - Inside and outside money
 - Effects of shocks to borrowing constraints and risk
- Comments
 - Application/relevance of mechanism
 - Determinacy

Basic Idea/Story

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Liabilities denominated in monetary units

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- Price stability and financial stability go hand in hand

Bewley's model of fiat money

- Uninsurable idiosyncratic income shocks y_t . Deterministic agg. dynamics
- Only outside money. Central bank sets $\{M_t^s\}_0^\infty$
- Households

$$\max \mathbb{E}_0 \sum_{t=0}^{\infty} \beta^t u(c_t)$$

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- At SS with $P_t = P$, $\mathbb{E}\hat{m} = \frac{M}{P} \Rightarrow$ Quantity theory of money

Bewley with Inside and Outside Money

- Private money creation b_{t+1} (real notes)

$$c_t + \underbrace{\frac{M_{t+1}}{P_t} + b_{t+1}}_{a_{t+1}} = \underbrace{b_t + \frac{M_t}{P_t}}_{a_t} + b_t r + y_t + T_t, \quad b_{t+1} \geq -\phi, M_{t+1} \geq 0$$

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- * Credit crunches lead to deflation
- Feedback in paper require $\downarrow P_t$

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- Methods: (Brunnermeir-Sannikov, 2014). Full eq. dynamics also in discrete time. Pros? Cons?

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- Emerging markets: Alternative debt-deflation through foreign currency and movements in real exchange rate might be more relevant.

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- Multiple paths of prices consistent with sequence of q_t^*
- But initial P_0 has redistributive effects $b_t = B_t/P_t \rightarrow \{q_t^*\}$
- Important difference in the paper seems to be outside money.
- Clarify determinacy of P_t — key for deflation spiral

Policy

- Liquidity spirals and deflation spirals cause “excessive borrowing”
- Would be interesting to study how the benefits from macroprudential policy vary when monetary policy is conducted optimally
 - Models of optimal macroprudential policy typically abstract from monetary policy (Lorenzoni, 2008; Bianchi, 2011; Bianchi-Mendoza 2013)
- Time inconsistency aspects of monetary and macropru?

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- Optimal Policy? Macroprudential tools?