Discussion “Expectations-Driven Liquidity Traps: Implications for Monetary and Fiscal Policy” Nakata Schmidt

SUERF Bank of Italy Conference

Discussant: Juan Passadore (EIEF)

November 2020

Intro

- Interesting Paper. Important question. In a nutshell:
    - Theory: Textbook NK model. Central Bank lacks commitment.
    - Equilibrium multiplicity. Construct an equilibrium that switches between two states. Sunspot: No change in fundamentals, coordination failure.
    - Many results in the paper. Two of them subject to recent policy discussions:
        - Raise the inflation target?
        - Expansionary fiscal policy.

- Discussion:
    - Commitment.
    - Alternative explanation. Secular Stagnation: low real rates.
    - What can we learn from data?
    - Fiscal policy.

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- Programming problem of Central Bank. No commitment, Markov policy problem, government optimizes given current conditions:

$$V(s) = \min_{\pi(s),y(s),i(s)} [\pi(s) - \pi^*]^2 + \bar{\lambda} y(s)^2 + \beta \mathbb{E} V(s')$$

subject to

$$\pi(s) = \kappa y(s) + \beta \mathbb{E}_{s'|s} \pi(s')$$
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- Previous system pins down the allocation. Last step. Given $\{\pi, y\}$ solve for i. What rate is compatible with inflation and output? Euler equation:

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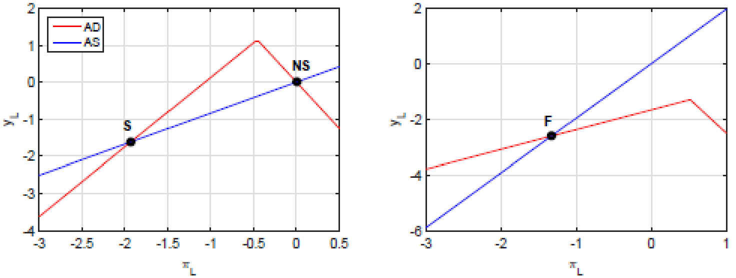
Sunspot vs Fundamental

Figure 1: Aggregate demand and aggregate supply in the low state



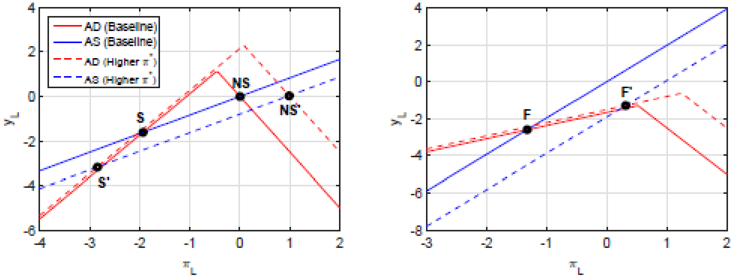
(a) Model with sunspot shock

(b) Model with fundamental shock

Note: In the left panel, S marks low-state output gap and inflation in the sunspot equilibrium and NS marks low-state output gap and inflation the no-sunspot equilibrium. In the right panel, F marks low-state output gap and inflation in the fundamental equilibrium. Inflation is expressed in annualized terms.

Sunspot vs Fundamental: Raise the target? Depends...

Figure 2: The effect of increasing the central bank's inflation target



(a) Model with sunspot shock (b) Model with fundamental shock

Note: Solid lines: $\pi^* = 0$; dashed lines: $\pi^* = 1/400$. In the left (right) panel, S (F) marks output gap and inflation in the sunspot (fundamental) equilibrium in the baseline and S' (F') marks outcomes in the sunspot (fundamental) equilibrium in the case of a higher π^*. NS marks output gap and inflation in the no-sunspot equilibrium in the baseline, and NS' marks outcomes in the no-sunspot equilibrium in the case of a higher π^*. Inflation is expressed in annualized terms.

1. Commitment

- Optimal policy with commitment. Key: ability to make and fulfill promises. Central Banks are currently engaged in: Forward Guidance, Unconventional monetary policy, Long run targeting...

- Some of these policies involve some degree of commitment to future policies. Why it matters? Werning (2012). NK model in a liquidity trap.
    - Optimal policy lack of commitment. Recession. Even Depression.
    - Optimal policy commitment. Optimal Policy: low rates for a long period of time. Promise a boom. Stimulates output today.

- Question: What do we know about the existence of the self-fulfilling liquidity trap with commitment? About the policies to mitigate this trap (fiscal and monetary)?

- Hard problem. History matters.

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- Among other reasons (for pushing real rates down)
  - large crisis and deleveraging
  - aging population
  - scarcity of safe assets
  - excess savings from corporations
  - inequality
  - downward trend in the price of capital goods

- Negative real rates: competing explanation. We need to think about both scenarios. Reality, probably a combination of both.

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  - Caramp Singh (2020), bond premium cyclicality. Yes the US.
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- Example: Hawkish Dovish Fed chair. Asset prices. COVID.

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- Comments
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  - Regional multipliers. Positive, and larger in the liquidity trap. Nakamura Steinsson (2014), Sarto (2020) methodology to estimate the intercept.
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