Discussion of “Contagious Malady? Global Dimensions of Secular Stagnation”

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Steady state of the basic model

- The model:
  - Eq. credit market: $\frac{\beta}{1+\beta} \cdot (Y - D) = \frac{D}{1+r}$
  - Phillips curve: $Y = \begin{cases} 1 & \text{if } \pi \geq 1 \\ \left(\frac{1-\gamma/\pi}{1-\gamma}\right)^{\frac{\alpha}{1-\alpha}} & \text{if } \pi \geq 1 \end{cases}$
  - Fisher Equation: $1 + r = \frac{1+i}{\pi}$
- Zero lower bound: $i \geq 0$
  - When bound is not binding, recursive system for a given $\pi = \bar{\pi}$
  - When bound is binding, $\pi \neq \bar{\pi}$ and simultaneous system for Y and π

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  - Fisher Equation: $1 + r = \frac{1+i}{\pi}$
- What is the problem?
  - Central bankers set an inflation target that is too low: $\pi = \bar{\pi} < 1$

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  - Fisher Equation: $1 + r = \frac{1+i}{\pi}$
- What is the problem?
  - Central bankers set $\bar{\pi} = 1$, but there is a lower bound: $i \geq 0$
    - First reaction: it should help since $\pi \geq \frac{1}{1+r}$
    - But the authors claim that it hurts. Why?

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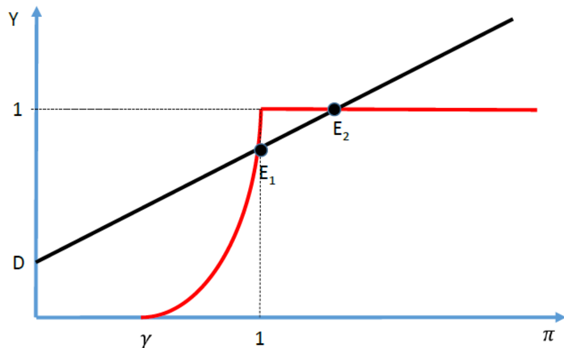
  - Fisher Equation: $1 + r = \frac{1+i}{\pi}$
- What is the problem?
  - A word of caution:
    - ⋆ Natural interest rate: $1 + r_N = \frac{1+\beta}{\beta} \cdot \frac{1-D}{D}$
    - ⋆ Good central banking solves all problems: $\bar{\pi} \geq \max\left\{1, \frac{1}{1+r_N}\right\}$

Are you missing an equilibrium?

- Assume from now on that $\bar{\pi} = 1 < \dfrac{1}{1 + r_N}$
- Then, $\pi \neq \bar{\pi}$. But how?
  - Secular stagnation equilibrium: $\pi = \dfrac{1}{1+r} < \bar{\pi}$, $y < 1$ and $r > r_N$
  - Full-employment equilibrium: $\pi = \dfrac{1}{1+r} > \bar{\pi}$, $y = 1$ and $r = r_N$
- How do we choose among these steady states?
  - Within the current model:
    - Stability properties?
    - Multiple equilibria?
    - Path dependence?
  - Beyond the current model, need to specify:
    - How does the government choose inflation when it can do so?
    - How does the government *fail* to choose inflation when it cannot do so?

Are you missing an equilibrium?



Steady state of the two-country model

- The model:
  - $$\frac{\beta}{1+\beta}\cdot(Y+Y^*-D-D^*)=\frac{D+D^*}{1+r}$$
  - $$Y=\begin{cases}1 & \text{if } \pi\geq 1\\ \left(\frac{1-\gamma/\pi}{1-\gamma}\right)^{\frac{\alpha}{1-\alpha}} & \text{if } \pi\geq 1\end{cases}\quad Y^*=\begin{cases}1 & \text{if } \pi^*\geq 1\\ \left(\frac{1-\gamma/\pi^*}{1-\gamma}\right)^{\frac{\alpha}{1-\alpha}} & \text{if } \pi^*\geq 1\end{cases}$$
  - $$1+r=\frac{1+i}{\pi}\quad 1+r=\frac{1+i^*}{\pi^*}$$
- Results
  - Sometimes equilibria are indeterminate (whose output is reduced?)
  - Policy analysis:
    - Capital controls to go back to autarky (might raise output by raising inflation)
    - Fiscal policy as changes in D and D^* (public debt, reserve accumulation)

Money as an asset

- Liquidity traps and adjustment:
  - low output and high real interest rate?
  - high inflation and low real interest rate?

- Liquidity trap is a situation in which money is used as a store of value:
  - Could asset creation be the adjustment mechanism?
  - Money, and other assets such as gold or land that are anchored
  - How does it affect output and inflation?

- *Conjecture*: The "cashless economy" limit might lead us astray when analyzing liquidity traps. Money is not a bubble

- See previous paper for a tour of the data and some model-based discussion of the role of money or asset creation as an adjustment mechanism

Additional comments

- Welfare analysis is too loose for an academic paper (a case for capital controls? Or financial autarky? Or regulating wages?):
  - Discussion of the gains from trade
  - How do I think about the welfare implications of output losses?
  - How are the gains/losses of policies distributed?
    - lenders vs. borrowers
    - workers vs. rentiers
    - current vs. future generations
- I think the paper would benefit if the model were used to interpret data
- Overall, a very interesting paper that has made me think a lot