

Incomplete Credit Markets and Monetary Policy

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Objective & Lessons

Objective: Study monetary policy within the context of a life cycle model with incomplete and segmented financial markets, flexible prices and facing the possibility of reaching the ZLB.

Lessons:

- Through appropriate counter-cyclical price level adjustments, the monetary authority is able to complete the credit market, thus restoring efficient risk sharing.
- The central bank can avoid the ZLB by credibly promising to increase the price level when negative shocks are large & persistent.
- Forward guidance is not an effective policy tool in this environment as it can not complete the credit market.

Key Features

- **Households:** Life cycle features are explicitly taken into account.
- **Financial market segmentation:** Credit-users and cash-users.
- **Assets:** One-period privately-issued household debt and fiat money.
- **Incomplete credit market:** \exists of only non-state contingent nominal contracts (NSCNC).
- **Full commitment:** By young households and central bank.
- **Risk:** Agents just face aggregate risk.
- **Central bank hierarchical mandate:** (1) Provide for smoothly functioning of credit markets and (2) inflation stability.

Some Suggestions

- Idiosyncratic uncertainty at the household level is important.
 - Introduce heterogeneity in the marginal utility of consumption $\{\epsilon_L, \epsilon_H\}$ among cash users \Rightarrow fiat money acts also as insurance \Rightarrow implications for the price level.
- Cash-users are a small fraction, ω , of the population (8% to 20%).
The total real demand for currency at date t is therefore given by

$$\mathcal{H}_t = \omega h^d(t) = \omega \frac{\gamma T}{2} w(t).$$

- To motivate the non circulation of private IOUs:
 - Assume that cash-users face recognizability problems as in Lester, Postlewaite and Wright (2012) or Williamson (2015).

Some Suggestions

- Are there any additional operating procedures for monetary policy that could improve the welfare of cash-users and still complete the credit market?

⇒ Something to explore

The central bank could decide to pay interest (a lower rate than the market one) on cash-holders ("*reserves*") with seignorage proceeds.

[eg. Freeman and Haslag (1996), Andolfatto (2010), Gomis-Porqueras and Sanches (2013), Williamson (2015)].

- How would the monetary equilibria look like if the central bank has also state contingent policies in terms of interest on "*reserves*"?

Dealing with ZLB

- Some sort of redistribution is required to improve outcomes.
 - **Price Level Targeting (PLT):** To restore the completeness of the credit market and avoid the ZLB, *a state contingent tax* to cash-users is required in periods of excessive negative expected consumption growth.
 - **Quantitative Easing (QE):** To restore the completeness of the credit market, purchases have to be such that they are viewed as permanent income. Thus the central bank would have to buy private paper but *not require redemption*.

This environment highlights a different source of credibility/time consistency issues when thinking about optimal policy and the ZLB relative to NK environments.

My Take Aways

- Ignoring household heterogeneity (in terms of cohorts and access to financial markets) is not as innocuous as it may seem when thinking about monetary policy design.
- In a world with financial frictions and segmented markets, **forward guidance** is not very helpful unless it attenuates financial market imperfections.
- Some sort of redistribution is required to effectively deal with the ZLB.

Thanks!!

References

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