Money in the Utility Function

Advanced Macro

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Introduction

- In RBC model, all variables are measured in real terms
- We now introduce money in model; two common ways to do it
  - Cash in advance - CIA (Clower, 1967)
    - Assumption: Money needs to be used to buy consumption goods
    - Rationale: Nothing in model explains why money is used
    - Modeling implication: Additional constraint
  - Money in the utility function - MIUF (Sidrauski, 1967)
    - Assumption: Money provides some service to the economy
    - Rationale: Save time, insurance against shocks, reduce search costs
    - Modeling implication: Additional argument in utility function
- **Main finding**: In these models, money is neutral

Assumptions

- Same assumptions about economy as in RBC model
- Same assumptions for HHs and firms as before, except for utility function
- Utility function in period t is of the form

$$U(C_t, \frac{M_t}{p_t}, H_t)$$

  where M_t/p_t are real money balances
- New parameters: D for real money balances and h_0 for labor
- Additional shock: Growth rate of money supply
- Model and handout have same structure as before