LIMITED ASSET MARKET PARTICIPATION

AND THE EULER EQUATION IMPLIED INTEREST RATE

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We start with the standard household problem from the neoclassical growth model. In period t, the representative consumer has preferences

$$U_t = \mathbb{E}_t \sum_{s=t}^{\infty} \beta^{s-t} u(C_s, C_{s-1}, L_s)$$

where β is her discount rate, C_s and C_{s-1} are real consumption today and yesterday, and L_s is fraction of leisure hours. Each period, she receives labor income with nominal wage W_s and chooses consumption and nominal holdings B_s of a risk-free one-period bond. The price of the consumption good is P_s. This gives the following period budget constraint in nominal units:

$$P_s C_s + (1 + i_{s-1}) B_{s-1} \leq W_s (1 - L_s) + B_s$$

Taking first-order conditions gives the equilibrium nominal interest rate by

$$\frac{1}{1 + i_t} = \mathbb{E}_t \left[\frac{\partial U_t / \partial C_{t+1}}{\partial U_t / \partial C_t} \frac{P_t}{P_{t+1}} \right]$$

In real units, the period budget constraint is

$$C_s + (1 + r_{s-1}) \frac{B_{s-1}}{P_{s-1}} \leq \frac{W_s}{P_s} (1 - L_s) + \frac{B_s}{P_s}$$

and the real interest rate satisfies

$$\frac{1}{1 + r_t} = \beta \mathbb{E}_t \left[\frac{\partial U_t / \partial C_{t+1}}{\partial U_t / \partial C_t} \right]$$

4 Aggregate Baseline

4.1 Data

4.2 Results

5 Limited Asset Market Participation

5.1 Data

5.2 Results

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Canzoneri, Matthew B., Robert E. Cumby, and Behzad T. Diba (2007) "Euler Equations and Money Market Interest Rates: A Challenge for Monetary Policy Models," *Journal of Monetary Economics*.