ECON 613 Reading Note 4

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Consumption decision-making has always been a hot topic. While previous papers used to assume intertemporally separable preference, many researchers have focused on the importance of habit formation, which considers time dependency. Given that most of these previous studies use aggregate data, this paper test for the existence of habit formation in consumption behavior at a microeconomic level, and solve problems such as endogeneity. After accounting for time-invariant unobserved heterogeneity, the results show that preferences are intertemporally non-separable.

On the basis of the model proposed by Meghir and Weber (1996), this paper uses a model based on three non-durable goods to solve the identification problem: a problem when identifying the dependence in the data comes from liquidity constraints or intertemporal non-separability. From the first-order conditions of maximizing the utility function for households, MRS representation is robust to the bind of liquidity constraints while Euler representation is not. Then a difference between the estimates in the two representations suggests liquidity constraints. In addition, the model considers demographic and labor supply variables and is limited to conditional preference.

In the empirical analysis, the authors attribute the total unobserved heterogeneity to expectational errors (orthogonal to variables dated at time t) and preference shocks (consisting of time-invariant unobserved heterogeneity components that choose at different time-correlated). To account for the fixed effect, the authors construct the MRS and the Euler equations by dropping the time-invariant effect component and making sure both equations use the same normalization restrictions on the coefficient. GMM is then used to perform the estimation for both equations.

The data comes from ECPF, a rotating panel providing eight consecutive quarters of data and other relatively comprehensive information on consumption. When the time unobserved invariant heterogeneity is not considered, the paper finds that preferences are intertemporal separable both from MRS and Euler. Besides, the

Sargan test shows there can be an overidentification problem of instruments, and another test also shows the possible presence of misspecification. After taking the fixed effect into account, the Sargan test does not detect the problem, and preferences are found to be non-separable. Interestingly, using the Euler equation, the authors find evidence of habit formation in food but fail to reject the coefficient's equality from the two equations. Furthermore, by grouping the sample by age, the paper tests the importance of liquidity constraints in another way. The results show that for the group younger than 40, non-separability in preference exist in Euler equation. The results also find the evidence against coefficient equality, which means the existence of liquidity constraints.

In conclusion, this paper demonstrates the significance of accounting for the fixed effects. When the time-invariant unobserved heterogeneity is controlled, it finds the presence of habit formation in food and service by using the MRS and that in food by using Euler. Nevertheless, the paper might ignore the fact that individuals have different propensities to make different consumption decisions, which may be an omitted variable in the model.