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Consumption and Habits: Evidence from
Panel Data

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Previous research stresses the importance of allowing for habit formation when studying consumption behavior. Although those models improve the predictions of time-separable models, most of the empirical work has been done using aggregate data. Even though some have access to microeconomic data sets, the estimates are inconsistent since they do not control for time-invariant unobserved heterogeneity across households while estimating Euler equations. Therefore, one of the contributions of this paper is trying to examine the consumers' consumption behavior by taking fixed effects into account.

The paper uses the Spanish Continuous Family Expenditure Survey (ECPF) where households are observed for up to eight consecutive quarters. It has two important advantages over other available data sets for the US and the UK. First, its long-time dimension followed up to eight consecutive quarters allows authors to rule out time fixed effects. Second, the large data contains enough lagged values of the variables that can be treated as instrumental variables. Also, they combine the data from the Spanish pay system to examine whether the household demand shifts as household income has a predictable change. Given the information on several consumption commodities, the authors circumvent the difficulty of being uncertain whether the dependence on variables come from liquidity constraints or intertemporal non-separabilites.

The result is based on the estimates using generalized methods of moments (GMM). It demonstrates the estimation of the MRS and the Euler equation for three nondurable goods, food at home, transport, and services. Without taking fixed effects into account, all the coefficients are not significant. In other words, the habit formation hypotheses would be rejected. In addition, this result has a misspecification problem since the null hypothesis of the validity of instruments is rejected. As for the estimation of models controlling for time fixed effects, the coefficients for food and services are significant in the MRS, suggesting the existence of habit formation. From the Euler equation, the coefficients estimated by Euler equations also show the habit formation in food, but it does not exist in transport and services.

To further examine whether liquidity constraints are binding or not, the authors compare the results for MRS and the Euler equation. The argument is the following: If habits exist and liquidity constraint is not binding, then the estimates obtained from both should be the same. The result shows that the equality of the habits parameters holds. In addition, when only individuals under 40 are considered, we cannot reject the null hypothesis of intertemporal separability. However, in the Euler equation case, they find the existence of non-separabilities, and they infer that those households are at the stage of making important decisions, leading to binding constraints.

Finally, I outline one concern. For a habit to be repeated over time, a stable context might be necessary. In other words, the habit can be destabilized when the context faces an exogenous change. Although the paper uses eleven years of a Spanish data set, the maximum number of consecutive interviews is eight. As a result, the formed habit might only hold during a time without a recession.

In conclusion, this paper applies panel data to examine whether the customers' consumption behavior has

inertia. It shows how crucial it is to account for fixed effects when testing for the presence of habit formation in consumption decisions. If fixed effects are not taken into account, the authors find evidence of intertemporally separable preferences. Nevertheless, this result is not robust once they control for time invariant unobserved heterogeneity across households.