How Does Consumption Respond to Income Shocks? Reconciling Natural Experiments and Structural Estimations

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Abstract

Results from natural experiments show that consumption responds strongly and significantly to transitory variations in income such as tax rebates or tax refunds, even among consumers that are unlikely to face liquidity constraints, while in estimations of life-cycle models, transitory shocks do not induce significant changes in consumption expenditures. First, I show that life-cycle estimation methods implicitly neglect the contribution of precautionary behavior. Second, I prove that, in a standard framework, the precautionary terms biases the results because they induce a correlation with past shocks that undermines the estimation strategy. Third, I develop a robust estimator that allows for the presence of a correlation with past shocks, and obtain that the elasticity of consumption growth to transitory shocks is statistically significant, in accordance with the literature on tax repayments. The estimation results imply that 13% of a transitory gain in net income is consumed within the following year.

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