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Xiang Yu* (xymath@umich.edu). *Optimal Consumption under Habit Formation In Markets with Transaction Costs and Random Endowments.*

This paper studies the optimal consumption under addictive habit formation preferences in markets with transaction costs and unbounded random endowments. To model the proportional transaction costs, we adopt the Kabanov's multi-asset framework with a cash account. At the terminal time T , the investor can receive unbounded random endowments for which we propose a new definition of acceptable portfolios based on the strictly consistent price system (SCPS). We prove a type of super-hedging theorem using the acceptable portfolios which enables us to obtain the consumption budget constraint inequality under the market frictions. By path dependence reduction and the embedding approach, the existence and uniqueness of the optimal consumption are obtained using some auxiliary processes and the convex duality analysis. (Received August 11, 2015)