Time Preference Induced by Risk Aversion

Shinsuke Ikeda*and Keiichi Tanaka†

April 23, 2008

Abstract

Experimental and/or questionnaire studies on consumer preferences have often reported that time preference applied to sure amounts of future consumption is correlated negatively with the degree of risk aversion. To address this puzzling feature, we consider an un-discounted utility maximization problem with internal uncertainty of random preference shifting, where for a sure amount of future consumption, its distribution in efficiency units displays gradual mean-preserving spreading over time. The original problem is shown to be observationally equivalent to: (i) the one with an un-discounted utility with external uncertainty that enters into a flow budget constraint, and (ii) the standard one of a discounted utility maximization without any uncertainty, where the associate time preference rate constructed so as to adjust the effect of internal risk depends negatively on the degree of risk aversion.

*Institute of Social and Economic Research, Osaka University, E-mail: ikeda@iser.osaka-u.ac.jp

†Graduate School of Social Sciences, Tokyo Metropolitan University, E-mail: tanaka-keiichi@tmu.ac.jp