Discounting, Diversity, and Investment

Sebastian Ebert   Wei Wei   Xun Yu Zhou*

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Abstract

This paper presents the class of *weighted discount functions,* which contains the discount functions commonly used in economics and finance. Weighted discount functions may describe: the discounting behavior of groups; uncertainty about what discount rate to use; behavioral time preferences; and all of these simultaneously. With the definition of the weighted discount function we introduce and characterize a notion that can quantify the diversity of the group discounting, the intra-personal heterogeneity about discount rate, and the level of time-inconsistency in a behavioral time preference. We study investment behavior under weighted discounting in the classical real option setting and come up with the following general result: Greater group diversity, greater parameter uncertainty, and more behavioral time preferences lead to a delay in investment and more risk-taking.

*Ebert: Frankfurt School of Finance and Management, Department of Economics, Adickesallee 32-34, 60322 Frankfurt, Germany, *and* Tilburg University, Department of Finance, Warandelaan 2, 5000 LE Tilburg, The Netherlands. Email: s.ebert@fs.de. Wei: Department of Statistics and Actuarial Science, University of Waterloo, 200 University Avenue West, Waterloo, N2L 3G1, ON, Canada. Email: wei.wei@uwaterloo.ca. Zhou: Department of IEOR, Columbia University, New York, NY 10027, USA. Email: xz2574@columbia.edu. The first version of this paper (September 17, 2016) circulated under the title "Weighted discounting – On group diversity, time-inconsistency, and consequences for investment." We thank Thomas Epper, Chiaki Hara, Oliver Spalt, Ivo Welch, Wei Xiong, and seminar audiences at Berkeley, Frankfurt School, Columbia, Tilburg, Singapore Management University, the National University of Singapore, Academia Sinica, and St. Gallen for helpful comments. We also thank conference participants of the 2017 Winter Workshop on Operations Research, Finance and Mathematics in Sapporo, Japan and of the European Finance Association Annual Meeting in Mannheim, Germany. Ebert gratefully acknowledges financial support through a Veni grant by the Dutch Science Foundation (NWO). Wei gratefully acknowledges financial support through Oxford–Nie Financial Big Data Lab. Zhou gratefully acknowledges financial support through a start-up grant at Columbia University and through Oxford–Nie Financial Big Data Lab.