

ON A DISPARITY BETWEEN WILLINGNESS TO PAY AND WILLINGNESS TO ACCEPT UNDER THE RANK-DEPENDENT UTILITY MODEL

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Abstract. Willingness to pay $WTP(X)$ for a lottery X , represented by a finitely-supported probability distribution on \mathbb{R} , is the highest amount an individual is willing to pay for X . Willingness to accept $WTA(X)$ is the smallest amount for which an individual would accept the sell of X . We deal with these notions under Rank-Dependent Utility, one of the behavioral models of decision making under risk. Applying some results concerning a comparison of quasideviation means, we characterize the properties of willingness to pay and willingness to accept related to the experimentally observed disparity between them.

Mathematics subject classification (2020): 39B62, 91B16.

Keywords and phrases: Lottery, willingness to pay, willingness to accept, quasideviation mean, comparison, functional inequality.

REFERENCES

- [1] M. H. BIRNBAUM, S. YEARY, R. D. LUCE AND L. ZHAO, *Empirical evaluation of four models of buying and selling prices of gambles*, J. Math. Psychol. **75**, (2016), 183–193.
- [2] J. CHUDZIAK, *On applications of inequalities for quasideviation means in actuarial mathematics*, Math. Inequal. Appl. **21**, (2018), 601–610.
- [3] J. CHUDZIAK AND M. CHUDZIAK, *On some applications of quasideviation means*, J. Differ. Equ. Appl. **25**, (2019), 1429–1437.
- [4] J. L. KNETSCH AND J. A. SINDEN, *Willingness to pay and compensation demanded: experimental evidence of an unexpected disparity in measures of value*, The Quarterly Journal of Economics **99**, (1984), 507–521.
- [5] D. KAHNEMAN AND A. TVERSKY, *Prospect theory: an analysis of decision under risk*, Econometrica **47**, (1979) 263–292.
- [6] M. LEWANDOWSKI, *Buying and selling price for risky lotteries and expected utility theory with gambling wealth*, J. Risk Uncertain. **48**, (2014), 253–283.
- [7] ZS. PÁLES, *Characterization of quasideviation means*, Acta. Math. Sci. Hungar., **40**, (1982), 243–260.
- [8] ZS. PÁLES, *General inequalities for quasideviation means*, Aequationes Math., **36**, (1988), 32–56.
- [9] A. RUBINSTEIN, *Dilemmas of an economic theorist*, Econometrica **74**, (2006), 865–883.
- [10] U. SCHMIDT, C. STARMER AND R. SUGDEN, *Third-generation prospect theory*, J. Risk Uncertain. **36**, (2008), 203–223.
- [11] R. THALER, *Toward a positive theory of consumer choice*, Journal of Economic Behavior and Organization **1**, (1980), 39–60.