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Absolute and relative risk aversion: An experimental study

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Abstract

Kenneth Arrow posed the hypotheses that investors reveal decreasing absolute risk aversion (DARA) and increasing relative risk aversion (IRRA). It is very difficult to empirically test these two hypotheses since one needs to analyze an investor's investment decisions at various points in his/her economic life cycle as the investor's wealth varies. An experimental study is conducted to test these two hypotheses when the subject's wealth varies depending on his/her investment performance. The experiment involves an actual money gain or loss which is indexed to the individual's investment performance. It is found that DARA is indeed strongly supported, but IRRA is rejected.



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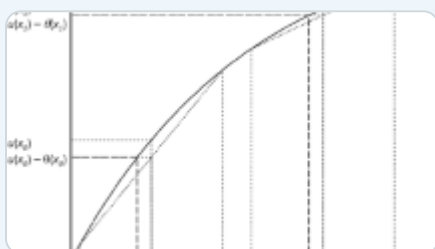
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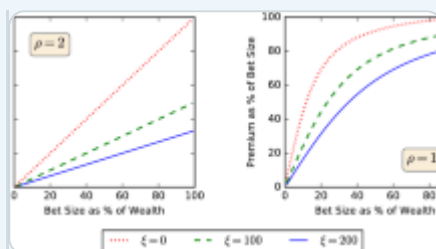
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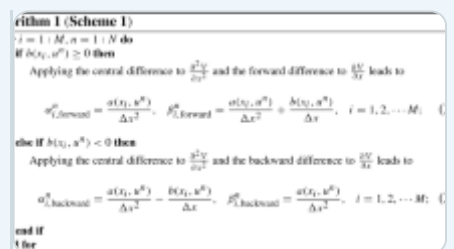
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References

Arrow, K. *Essays of the Theory of Risk Bearing*. (1971). Chicago: Markham Publishing Company.

Aumann, R. J. (1987). "Game Theory." In John Eatwell, Murray Milgate, and Peter Newman (eds.), *The New Palgrave*, Vol. 2. London: Macmillan.

Briys, Eric, Louis Eeckhoudt, and Henri Loubergé. (1989). "Endogenous Risks and the Risk Premium," *Theory and Decision* 26, 37-46.

Fishburn, C. Peter. (1988). "Expected Utility: An Anniversary and New Era," *Journal of Risk and Uncertainty* 1, 267-283.

Fiorina, Morris P., and Charles R. Plott. (1978). "Committee Decision Under Majority Rule: An Experimental Study," *American Political Science Review* 72 (June), 575-86.

Forsythe, Robert, Thomas R. Palfrey, and Charles R. Plott. (1982). "Asset Valuation in an Experimental Market," *Econometrica* 50 (May), 537-67.

Friend, I., and M. Blume (1975). "The Demand for Risky Assets," *American*

Economic Review (December), 900–927.

Grether, David M., and Charles R. Plott. (1979). “Economic Theory of Choice and the Preference Reversal Phenomenon,” *American Economic Review* 69 (September), 623–38.

Hogarth, Robin and Melvin W. Reder, eds. (1987). *Rational Choice: The Contrast Between Economics and Psychology*. Chicago: University of Chicago Press.

Kahneman, Daniel, Paul Slovic, and Amos Tversky, eds. (1982). *Judgment Under Uncertainty: Heuristics and Biases*. New York: Cambridge University Press.

Kahneman, Daniel, and Amos Tversky (1979). “Prospect Theory: An Analysis of Decision Under Risk,” *Econometrica* 47 (March), 263–91.

Kroll, Yoram, and Haim Levy. (1992). “Further Tests of the Separation Theorem and the Capital Asset Pricing Model,” *American Economic Review* 82, 664–670.

Kroll, Yoram, Haim Levy, and Harry M. Markowitz (1984). “Mean-Variance versus Direct Utility Maximization,” *Journal of Finance* 39 (March), 47–61.

Kroll, Yoram, Haim Levy, and Amnon Rapoport. (1988). “Experimental Tests of the Mean-Variance Model for Portfolio Selection,” *Organizational Behavior and Human Decision Processes* 42, 388–410.

Kroll, Yoram, Levy Haim, and Rapoport Amnon. (1988). “Experimental Tests of the Separation Theorem and the Capital Asset Pricing Model,” *American Economic Review* 78, 500–519.

Levy, Haim, and Paul A. Samuelson. (1992). “The Capital Asset Pricing Model

with Diverse Holding Period,"*Management Science* 38, 1529-1542.

Lintner, John (1965). "The Valuation of Risk Assets and the Selection of Risky Investment in Stock Portfolios and Capital Budgets,"*Review of Economics and Statistics* 47, 13-17.

Markowitz, Harry, M. (1959). "Portfolio Selection,"*Journal of Finance* 7 (June), 77-91.

Markowitz, Harry M. (1987).*Mean-Variance Analysis in Portfolio Choice and Capital Markets*. New York: Blackwell.

Merton, R. W., and P. A. Samuelson. (1984). "Fallacy of the Log-normal Approximation to Optimal Portfolio Decision Making over Many Periods,"*Journal of Financial Economics* 1, 67.

Plott, Charles, R. (1986). "Rational Choice in Experimental Markets,"*Journal of Business* 59 (October), 301-27.

Plott, Charles R. (1987). "Rational Choice in Experimental Markets." (1987). In Hogarth and Reder.

Plott, Charles, R., and Shyam Sunder. (1982). "Efficiency of Experimental Security Markets with Insider Information: An Application of Rational-Expectations Models,"*Journal of Political Economy* 90 (41), 665-697.

Plott, Charles R., and Vernon L. Smith. (1978). "An Experimental Examination of Two Exchange Institutions,"*Review of Economic Studies* 45 (February), 133-53.

Pratt, J. W. "Risk Aversion in the Small and in the Large." *Econometrica* 32, 122-

Rapoport, Amnon. (1984). "Effect of Wealth on Portfolios Under Various Investment Conditions," *Acta Psychologica* 50 (February), 31-51.

Rubinstein, M. (1976). "The Valuation of Uncertain Income Streams and the Pricing of Options," *Bell Journal*, 407-25.

Samuelson, P. A. (1990). "Asset Allocation Could be Dangerous to Your Health," *Journal of Portfolio Management* 16 (Spring) 5-8.

Sharpe, William F. (1964). "Capital Asset Prices: A Theory of Market Equilibrium Under Conditions of Risk," *Journal of Finance* 19, 425-442.

Smith, Vernon, L. (1962). "An Experimental Study of Comparative Market Behavior," *Journal of Political Economics* 70 (April), 111-37.

Smith, Vernon L. (1991). "Rational Choice: The Contrast between Economics and Psychology," *Journal of Political Economy* 99, 878-897.

Tversky, Amos. (1989). In William Sharpe and Katrina F. Shefered (eds.), *Quantifying the Market Risk Premium Phenomenon for Investment Decision Making*. The Institute of Chartered Financial Analysts (CFA), pp. 73-77.

Whitmore, Alex. (1970). "Third Degree Stochastic Dominance," *American Economic Review* 60, 457-59.

Zwick, Rami, and Amnon Rapoport. (1985). "Relative Gain Maximization in Sequential Three-Person Characteristic Function Games," *Journal of Mathematical Psychology* 29 (September), 333-59.

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