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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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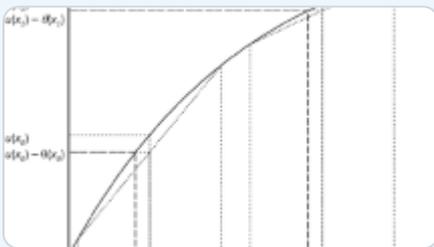
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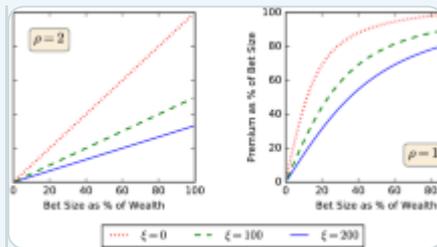
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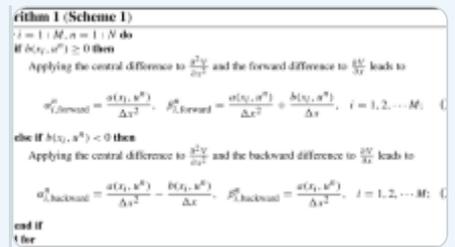
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References

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

[Google Scholar](#)

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

[Google Scholar](#)

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

[Google Scholar](#)

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

[Google Scholar](#)

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.

[Google Scholar](#)

Friend, I., and M. Blume (1975). "The Demand for Risky Assets," *American Economic Review* (December), 900-927.

[Google Scholar](#)

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

[Google Scholar](#)

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

[Google Scholar](#)

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

[Google Scholar](#)

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

[Google Scholar](#)

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.

[Google Scholar](#)

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.

[Google Scholar](#)

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.

[Google Scholar](#)

Levy, Haim, and Paul A. Samuelson. (1992). "The Capital Asset Pricing Model with Diverse Holding Period," *Management Science* 38, 1529-1542.

[Google Scholar](#)

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.

[Google Scholar](#)

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

[Google Scholar](#)

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

[Google Scholar](#)

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.

[Google Scholar](#)

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

[Google Scholar](#)

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.

[Google Scholar](#)

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

[Google Scholar](#)

Pratt, J. W. "Risk Aversion in the Small and in the Large." *Econometrica* 32, 122-136.

Rapoport, Ammon. (1984). "Effect of Wealth on Portfolios Under Various

Investment Conditions,"*Acta Psychologica* 50 (February), 31-51.

[Google Scholar](#)

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.

[Google Scholar](#)

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

[Google Scholar](#)

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

[Google Scholar](#)

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

[Google Scholar](#)

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.

[Google Scholar](#)

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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