

## Look ma(rket), No Hands! Optimism Bias and Illusion of Control in Finance Professionals

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### Abstract

The optimism bias is the tendency to judge one's own risk as less than the risk of others. In the present study we found that also finance professionals (N = 60) displayed an optimism bias when forecasting the return of an investment made by themselves or by a colleague of the same expertise. Using a multidimensional approach to the assessment of risk perception, we found that participants' forecasts were biased not because they judged negative consequences as less likely for themselves, but because they were overconfident in their ability to avoid and control them.

**Keywords:** Optimism bias; unrealistic comparative optimism; financial risk; investment risk; perceived control; illusion of control.

### Introduction

Finance professionals deal every day with uncertainty and the danger of losing money, putting a lot of effort into minimizing adverse outcomes. In other words, their job consists in willingly taking risks and trying to manage them. While the danger of losing money is real, there is no such thing as a "real" or "objective" risk. Indeed, risk is a psychological construct, which refers to how people understand and cope with dangers and uncertainties of life (Sjöberg, Moen, & Rundmo, 2004; Slovic, 1999). An extensive body of research has focused on risk perception, which is the subjective assessment of the probability as well as the consequences and characteristics of a negative outcome. (Sjöberg et al., 2004). As Zweig wrote about financial risk, "*If you want to know what risk really is, go to the nearest bathroom and step up to the mirror. That's risk, gazing back at you from the glass*" (Graham & Zweig, 2006, p. 528).

One of the most robust findings in risk perception literature is that people make quite different judgments of personal and general risk, with personal risk being usually lower than general risk (for a review, see Armor & Taylor, 2002). For example, people believe that negative events such as having a heart attack, divorcing a few years after marriage or getting fired from a job are less likely to happen to them than to the average person (Weinstein, 1980). This sense of subjective immunity has been called *optimism bias* or *unrealistic comparative optimism* (Shepperd, Klein, Waters, & Weinstein, 2013), since the commonly shared perception of being less at risk as the average peer is not only optimistic but also unrealistic.

There is evidence that optimism plays a role also in the perception of financial risks. Optimism, as a dispositional trait, has been linked to individual economic decision-making: Moderate optimists display reasonable financial

behavior, whereas extreme optimists display financial habits and behavior that are generally not considered prudent (Puri & Robinson, 2007). Moreover, analysts have been shown to be systematically overoptimistic in their forecasts about the earnings potential of firms at the time of their initial public offerings, and this optimism increases as the length of the forecast period increases (McNichols & O'Brien, 1997; Rajan & Servaes, 1997). To the best of our knowledge, however, the presence of the optimism bias/unrealistic comparative optimism in financial risk (i.e., judging personal risk of losing money as lower than other investors' risk) has never been subject of empirical testing.

The main aim of this study is to investigate whether the optimism bias can be observed also in experts in the field of financial risk. Second, the study aims to identify the sources that give rise to this bias, through the adoption of a multidimensional approach to the assessment of risk perception, based on the psychometric paradigm of risk (Fischhoff, Slovic, Lichtenstein, Read, & Combs, 1978; Slovic, 1987).

### Method

#### Participants

A total of 60 finance experts (43 men, 17 women; mean age=38.25 years, SD=9.33; mean expertise=12.95 years, SD=10.02), working as brokers, financial consultants, financial analysts, and bankers, were contacted at their workplace. All experts agreed to participate in the study on a voluntary basis.

#### Materials

Experts were presented with a scenario reporting the current financial situation of a company (NewCo), which is about to issue an IPO (Initial Public Offering). The scenario included a detailed explanation of the company's background, products, and business strategy. Experts were randomly assigned to the *self* or *peer* condition, in a between participants design.

Experts were asked first to forecast the return after two years (positive vs. negative) of a €5.000 investment in the new issued NewCo shares made by themselves (in the self condition) or by a colleague of the same age, sex and expertise (in the peer condition). Then, they were asked to judge the investment risk for themselves (in the self condition) or for their colleague (in the peer condition), by responding to a risk perception questionnaire based on the psychometric paradigm. Using a 5-point scale, experts had to rate the following six dimensions of financial risk:

1. *Knowledge* of risk;
2. *Probability* of a negative return;
3. Possibility to *avoid* a negative return;
4. *Fear* of a negative return;
5. *Magnitude* of potential losses;
6. Possibility to *control* potential losses.

Finally, experts compiled an attitude to economic risk scale (Sjöberg & Engelberg, 2009), a 22-item measure of individual differences in risk attitude about economic decision-making (in the present study, Cronbach’s  $\alpha = 0.76$ ).

**Results**

Experts’ forecasts were significantly more optimistic in the self condition than in the peer condition (expected positive return: 83.30% vs. 63.30%,  $\chi^2_{(1,60)} = 3.07, p < 0.05$  one-sided).

Experts’ ratings of financial risk dimensions are reported in Table 1. Statistical analyses revealed that experts judged themselves (self condition) as more capable to avoid a negative return ( $t = 2.04, df = 58, p < 0.05, d = 0.52$ ) and control potential losses ( $t = 2.56, df = 58, p < .05, d = 0.66$ ) than their colleague of the same expertise (peer condition). When a subsequent one way independent analysis of variance (ANOVA) was conducted separately on avoidance and control, no significant effects of experts’ gender, age and economic risk attitude as covariates were found (all  $ps > 0.21$ ).

Risk dimensions	Self	Peer
Knowledge	3.10 (1.03)	2.73 (0.87)
Probability	3.30 (0.84)	2.93 (1.17)
Avoidance	2.47 (1.01)	1.97 (0.89)
Fear	3.07 (1.05)	3.23 (1.25)
Magnitude	3.03 (0.89)	2.67 (1.06)
Control	2.87 (1.20)	2.10 (1.12)

Table 1: Mean ratings of financial risk dimensions (standard deviations in parenthesis).

Logistic regression with backward stepwise selection was conducted to assess whether risk dimensions significantly predicted experts’ forecasts. The only significant predictor turned out to be the control dimension, indicating that the odds of expecting a positive return are increasingly greater as perceived control increases ( $B = 0.57, Wald = 4.17, df = 1, p < 0.05$ ).

**Discussion**

Finance professionals displayed an optimism bias in their own expertise field: They were 20% more likely to forecast future return of a risky investment as positive when it was made by themselves, than when the same investment was made by a colleague of the same age, sex, and expertise. What are the reasons of this difference? The analysis of risk perception can help explain this unrealistic comparative optimism. Indeed, experts were found to be more confident

in their own ability to avoid a negative return and to control potential losses, than in their colleagues’ one. Other dimensions of financial risk perception did not differ between self-perception and peer-perception, and no effects of gender, age, and attitude to financial risk-taking were found. Thus, it seems that experts’ forecasts were biased not because they judged negative consequences as less likely for themselves (the “it won’t happen to me” attitude; Caponecchia, 2010), but because they thought to be capable to avoid and control them (“if it happens, it won’t hurt me”). However, since the negative consequences of an economic investment such as buying shares of an IPO are hardly controllable by the investor, experts’ overconfidence can be seen as the consequence of the illusion of control, a bias consisting in the belief of being more in control than is possible (e.g., when people view the chances of winning the lottery as higher if they choose the number themselves; Langer, 1975).

The results of the present study are consistent with previous research suggesting a positive relationship between controllability and the optimism bias, such that events perceived to have a high degree of controllability result in high levels of optimism bias (Klein & Larsen, 2002; Harris, 1996; Weinstein, 1980). Specifically, our results support the idea that *perceived* controllability of a risky behavior, rather than *actual* controllability, is a sufficient condition for the optimism bias to arise.

This tendency to perceive oneself less at risk as the others represents a challenge for financial risk communication: How to effectively communicate probability and magnitude of potential future losses, when everybody overstates its ability to ride out of negative consequences? We advocate Benjamin Graham’s suggestion to enterprising investors, that “*operations for profit should be based not on optimism but on arithmetic*” (Graham & Zweig, 2006, p. 523).

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**References**

Armor, D. A., & Taylor, S. E. (2002). When predictions fail: The dilemma of unrealistic optimism. In T. Gilovich, D. Griffin & D. Kahneman, Daniel (Eds.), *Heuristics and biases: The psychology of intuitive judgment*. New York: Cambridge University Press,

Caponecchia, C. (2010). It won't happen to me: An investigation of optimism bias in occupational health and safety. *Journal of Applied Social Psychology, 40*, 601-617.

Fischhoff, B., Slovic, P., Lichtenstein, S., Read, S., & Combs, B. (1978). How safe is safe enough? A psychometric study of attitudes towards technological risks and benefits. *Policy sciences, 9*, 127-152.

Graham, B., & Zweig, J. (2006). *The Intelligent Investor (Revised Edition)*. New York: Collins Business Essentials.

Harris, P. (1996). Sufficient grounds for optimism? The relationship between perceived controllability and

- optimistic bias. *Journal of Social and Clinical Psychology*, 15, 9-52.
- Klein, C. T., & Helweg-Larsen, M. (2002). Perceived control and the optimistic bias: A meta-analytic review. *Psychology and Health*, 17, 437-446.
- Langer, E. J. (1975). The illusion of control. *Journal of personality and social psychology*, 32, 311-328.
- McNichols, M., & O'Brien, P. C. (1997). Self-selection and analyst coverage. *Journal of Accounting Research*, 35, 167-199.
- Puri, M., & Robinson, D. T. (2007). Optimism and economic choice. *Journal of Financial Economics*, 86, 71-99.
- Rajan, R., & Servaes, H. (1997). Analyst following of initial public offerings. *The Journal of Finance*, 52, 507-529.
- Shepperd, J. A., Klein, W. M., Waters, E. A., & Weinstein, N. D. (2013). Taking stock of unrealistic optimism. *Perspectives on Psychological Science*, 8, 395-411.
- Sjöberg, L., & Engelberg, E. (2009). Attitudes to economic risk taking, sensation seeking and values of business students specializing in finance. *The Journal of Behavioral Finance*, 10, 33-43.
- Sjöberg, L., Moen, B. E., & Rundmo, T. (2004). *Explaining risk perception. An evaluation of the psychometric paradigm in risk perception research*. Trondheim: Rotunde.
- Slovic, P. (1987). Perception of risk. *Science*, 236, 280-285.
- Slovic, P. (1999). Trust, Emotion, Sex, Politics, and Science: Surveying the Risk-Assessment Battlefield. *Risk Analysis*, 9, 689-701.
- Weinstein, N. D. (1980). Unrealistic optimism about future life events. *Journal of Personality and Social Psychology*, 39, 806-820.