

## **Assessment of dissertation “Overconfidence in Business, Economics, Finance and Psychology: How much of a problem is it?” by Marian Krajc**

The dissertation manuscript in the first part provides a theoretical approach to explain recent, ambiguous findings in the overconfidence research as a sample selection problem. The second part presents the results of three experiments, one field and two laboratory, that have been explicitly designed to test the theoretical explanation presented in the first part and to settle some still open questions on the prevalence and the extent of overconfidence.

The third part additionally provides an extensive literature review on overconfidence studies that use an experimental approach in the area of economics, business and finance. The dissertation concludes with an outlook on the next potential steps in overconfidence research. The author suggests issues that should be addressed to advance the understanding and relevance of the overconfidence bias with the final goal of finding ways to overcome it. In the following, I will review the three parts of the dissertation and provide some brief comments. Finally, I will present my recommendation.

Chapter 1 introduces a theoretical explanation for the unskilled-and-unaware problem based on a sample selection bias. It is plausibly claimed that such a selection bias underlies the most prominent studies on overconfidence. By numerical examples of different complexity it is demonstrated that a skewed distribution of underlying abilities can generate the finding that particularly individuals of the lowest abilities are susceptible to overestimating their own standing, especially since it is difficult to infer one’s relative ranking in a previously unknown group. The theoretical results that are consistent with findings from previous experiments seem convincing. This study has already been well received by the scientific community since it was accepted for publication in the *Journal of Economic Psychology*.

Chapter 2 undertakes a test of the theoretical explanation of chapter 1 in one field and two laboratory experiments. Additionally, some further open questions regarding the robustness of overconfidence are addressed, such as the impact of general and specific feedback on self-assessment, the dependence of miscalibration on an absolute or relative self-evaluation, and the emergence of the overconfidence bias in general knowledge questions and skill-oriented tasks. The three experiments are thoughtfully designed and neatly set up. The data are very well documented and the analysis relies on state-of-the-art methodology. Still, the results are less straightforward than expected; for many of the hypotheses only partial support is found

indicating that some of the prevailing ambiguities in the overconfidence research cannot even be resolved by very considerate testing. However, in some parts of this chapter the interpretation of the statistical results is too bold: when statistical tests do not or only partially support the hypotheses, the impression provided by the descriptive statistics are overemphasized. In this respect, I feel that the interpretation of the results should more precise. Unfortunately, the theoretical explanation for overconfidence from chapter 1 is not very well supported by the experimental data in chapter 2, which is explained by differences between the underlying ability distribution in the respective sample and the ability distribution serving as a base for the theoretical predictions, and by admitting that the theoretical model possibly omits a relevant, yet not identified, factor. This interpretation seems conclusive.

Chapter 3 provides an extensive and very useful overview of experimental studies on overconfidence in economics, business and finance. The author presents detailed descriptions of research questions and setups of every single study which allows for an in-depth assessment of the studies' overall contributions. Potential shortcomings are highlighted in a comprehensive manner. This literature review is very informative and much appreciated in a research area that is characterized by large heterogeneity in approaches and results. However, since the categorization of studies into different fields and methods is not (and can naturally not be) unique, there are some redundancies which makes reading arduous. Possibly a different, and more concise mode of presentation is needed that reviews each study only once. On the other hand, these redundancies allow employing this chapter as an easy-to-use reference of the relevant literature, which is much needed, and can thus also be seen as virtuous.

Despite the few critical points that I highlighted above as improvable, I think the thesis provides an important and significant contribution to the quite heterogeneous literature on overconfidence and can – due to its extensive literature review – also be used as work of reference for scholars who are interested in starting research in this topic. I overall feel that this is a fine and interesting manuscript, diligently composed, and it is well worthy of being accepted as Ph.D. thesis. I recommend awarding the Ph.D. to the candidate.