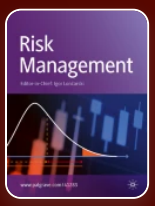
Kappa ratios and (higher-order) stochastic dominance

Original Article | Published: 21 June 2017

Volume 19, pages 245–253 (2017) Cite this article



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Abstract

This paper first shows the sufficient relationship between the \((n+1)\)-order SD and the *n*-order Kappa ratio. In fact, we clarify the restrictions on necessary beating of the target for the higher-order SD consistency of the Kappa ratios. Thereafter, we show that, in general, the necessary relationship between SD/RSD and the Kappa ratio cannot be established. We find that when the variables being compared belong to the same location-scale family or the same linear combination of location-scale families, we can get the necessary relationship between the \((n+1)\)-order SD with the *n*-order Kappa ratio after imposing some conditions on the means. Our findings enable academics and practitioners to draw better decision in their analysis.

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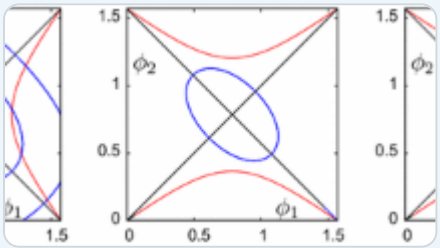

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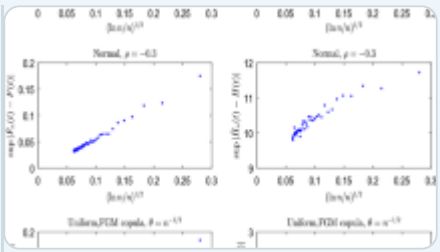

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Notes

1. We note that there are other approaches to measure risk, see, for example, Bea (2009) and Kutan and Yaya (2016).

2. We denote risk-seeking SD for risk seekers as RSD while Levy (2015) denotes it as RSSD. Readers may refer to Li and Wong (1999), Wong and Li (1999), Wong (2007), Levy (2015), and Guo and Wong (2016) for more information.

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Acknowledgements

The authors are grateful to Igor Lončarski, the Editor, and anonymous reviewers for substantive comments that have significantly improved this manuscript. The second author would like to thank Robert B. Miller and Howard E. Thompson for their continuous guidance and encouragement. This research has been partially supported by grants from the Fundamental Research Funds for the Central Universities, China Postdoctoral Science Foundation (2016M600951), Humanities and Social Sciences Planning Fund of Ministry of Education (15YJA910004), Natural Science Foundation of Zhejiang Province (LY15A010006), Asia University,

Hang Seng Management College, Lingnan University, the Research Grants Council of Hong Kong, Ministry of Science and Technology (MOST), Taiwan, and World Track Investment Ltd.

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About this article

Cite this article

Niu, C., Wong, WK. & Xu, Q. Kappa ratios and (higher-order) stochastic dominance. *Risk Manag* **19**, 245–253 (2017). https://doi.org/10.1057/s41283-017-0020-1

Published
21 June 2017

Issue date
August 2017

DOI
https://doi.org/10.1057/s41283-017-0020-1

Keywords

Stochastic dominance | Kappa ratio | Omega ratio | Sortino ratio | Mean-risk analysis | Risk aversion

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