Concentration Inequalities for Conditional Value at Risk

Errata

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October 15, 2020

Error

The equation labeled (2) on page 3 of our paper (Thomas and Learned-Miller, 2019) says:

\[ C(Y) = \frac{1}{\alpha} \int_{1-\alpha}^{1} \text{VaR}_\gamma(Y)d\gamma. \]

The VaR\(_\gamma(Y)\) term should be VaR\(_{1-\gamma}(Y)\). That is, the equation labeled (2) should be:

\[ C(Y) = \frac{1}{\alpha} \int_{1-\alpha}^{1} \text{VaR}_{1-\gamma}(Y)d\gamma. \]

An equivalent correct equation would be:

\[ C(Y) = \frac{1}{\alpha} \int_{0}^{\alpha} \text{VaR}_\gamma(Y)d\gamma. \]

This error should be clear from Figure 3 and noticing that VaR\(_\alpha\) was defined in terms of the upper-tail—the incorrect equation assumed that VaR\(_\alpha\) was defined in terms of the lower-tail. The subsequent expressions all remain correct to the best of our knowledge.

Acknowledgements

We thank James Kostas for finding and alerting us of this error.

References