

Review of MS 872

Black Swans, Dragon Kings, and Bayesian Risk Management

General considerations

This paper presents some ideas on Bayesian risk management. These ideas are summarized in figure 1. Unfortunately, the paper fails to present specific examples showing that Bayesian risk management works better than other kinds of risk management. For this reason, I recommend major revisions as detailed below.

List of required revisions

1. Abstract: The authors claim that data-intensive statistical methods rely on short historical time series to estimate future risk. However, it is possible to estimate future risk based on short historical time series using Bayesian methods.
2. Black swans: The authors claim that Taleb coined the notion of black swans. What about Hume? This paper quotes two contemporary authors (Taleb and Sornette) and neglects many important thinkers of the past. Below, there are some more hints.
3. Disaster myopia: I really do not believe that *this disaster myopia can be attributed to the frequentist Weltanschauung* (please capitalize Weltanschauung). Rather, it can be attributed to greed and fraudulent behavior. However, the opinion of the authors should be substantiated/corroborated by specific examples.
4. Bayesian belief system: It is better to write that BRM draws on the *subjective* notion of probability. There is no Bayesian notion of probability.
5. No measurements without theory: I think this has been taught by epistemologists and not by physicists who usually do not care about such problems.
6. References: Pointers to the works of those who expanded the subjective interpretation of probability in the XXth Century are missing. In particular, the authors seem to ignore Ramsey and de Finetti.

Final recommendation

I think the authors should submit an augmented version of their paper *clearly showing with examples that Bayesian Risk Management is superior to other kinds of risk management*. They do not have page limits. Moreover, their ideas should be put in the proper context. I have already seen similar ideas written by Italian management scholars in the tradition of Bruno de Finetti. His contributions as well as the contributions of Frank Plumpton Ramsey cannot be neglected. With all due respect, I would have quoted them rather than Taleb and Sornette.