

# How is elicibility relevant for backtesting?

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Independently, Weber [2006] and Gneiting [2011] have shown that Expected Shortfall (ES) is not elicitable in contrast to Value at Risk (VaR). Roughly, elicibility of a risk measure means that it can be obtained as the minimizer of an expected loss function. This negative result continues to hold for all spectral risk measures (except for the mean) and the only coherent risk measures that are elicitable are certain expectiles. However, we were able to show recently that ES is jointly elicitable with VaR, and, more generally, a large class of spectral risk measures is elicitable of higher order [Fissler and Ziegel, 2016].

There is little debate that elicibility is a useful property for model selection, estimation, generalized regression, forecast comparison, and forecast ranking. But the non-elicibility of ES has led to a lively debate about the relevance of elicibility for backtesting [Acerbi and Szekely, 2014, Davis, 2016, Emmer et al., 2015]. Contributing to this discussion, we would like to clarify that elicibility is not important for the traditional approach to backtesting. However, we argue that elicibility is crucial to achieve the objectives of backtesting [Fissler et al., 2015]. We illustrate the proposed approach for VaR and ES jointly and for VaR alone.

## REFERENCES

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