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# Assessing the importance of the choice threshold in quantifying market risk under the POT method (EVT)

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## Abstract

The conditional extreme value theory has been proven to be one of the most successful in estimating market risk. The implementation of this method in the framework of the Peaks Over Threshold (POT) model requires one to choose a threshold for fitting the generalized Pareto distribution (GPD). In this paper, we investigate whether the selection of the threshold is important for the quantification of market risk. For measuring risk, we use the value at risk (VaR) measure and the expected shortfall (ES) measure. The study has been done for a large set of assets. The results obtained indicate that the quantification of the market risk through the VaR and ES measures does not depend on the threshold selected. This result is also found in a smaller sample.

**Keywords** Extreme Value Theory, Peaks over Threshold, Value at Risk, Expected Shortfall, Generalized Pareto Distribution.

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