Pro-Cyclicality of Traditional Risk Measurements: Quantifying and Highlighting Factors at its Source

Marie Kratz
ESSEC Business School
kratz@essec.edu

There is an accepted idea that risk measurements are pro-cyclical: in times of crisis, they overestimate the future risk, while they underestimate it in quiet times. We lay down a methodology to evaluate the amount of pro-cyclicality in the way financial institutions measure risk, and identify two main factors explaining this pro-cyclical behavior: the clustering and return-to-the-mean of volatility, as it could have been anticipated but not yet quantified, and, more surprisingly, the very way risk is measured, independently of this return-to-the-mean effect. We provide CLTs and FCLT's for functionals of quantile and dispersion estimators to support theoretically those empirical findings.