

The referee's report on the paper "CoCDaR and mCoCDaR:
New Approach for Measurement of Systemic Risk Contributions"
submitted in the Journal of Risk and Financial Management

The reviewed paper is aimed to model and to estimate the systemic risk. That is, the risk that the losses of one or more institutions can induce the collapse of whole industry. In more details, the work continues the direction of research of the paper by Huang and Uryasev (2017), where the systemic risk is valued by value-at-risk based risk measures. Instead of contributed value-at-risk and contributed conditional value-at-risk, the authors suggest to use drawdown based risk measures which depend on historical highs and lows of institution returns. They adapt the CVaR estimation quantile regression methodology to the case of conditional drawdown-at-risk type measures.

Sections 2.1–2.4 define CoCDaR risk measure exploiting the lagged state variables from Adrian and Brunnermeier (2008) and estimate it by CVaR type regression technology. Sections 2.5–2.6 give an example of calculation. Further, the multiple generalization of CoCDaR is discussed. The rest of the paper is set to discuss the results and to supply practitioners with some recommendations.

Despite that the paper looks new and interesting, there are minor remarks to improve the exposition.

1. l. 76-77. It should be $\text{CDaR}_\alpha(X) = \text{CVaR}_\alpha(Y)$.
2. l. 142-143. The mathematical definition (a formula) of α -DaR should be included. Probably, it could be placed in Section 2.1.
3. Section 2.6. I suggest to set $\alpha'_1 = 0.9$ and $\alpha'_2 = 0.5$. Then it can be between l. 169-170 $\Delta_{\alpha'_{12}}$. The question is that the difference should depend on the choice of example.
4. Section 2.9. I suggest to delete indexes $1, \dots, I$ from α' since α' is the same for all $i = 1, \dots, I$. And to change it in the way of remark 3.

I believe that the paper can be published in the Journal of Risk and Financial Management after the minor revision suggested above.