Interval-Related Talk at the 6th International Conference on Financial Econometrics ECONVN'2023 (Ho Chi Minh City, Vietnam, January 9–11, 2023)

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In the past, each of these conferences had several interval-related papers, this time, only one such paper was presented, paper [1]. This paper deal with the problem of fair bankruptcy under interval uncertainty.

Traditional approach to bankruptcy assumes that we know the exact monetary value c_i of each creditor's claim. In this case, the only way to satisfy the natural fairness conditions is to make the payment to each creditor proportional to his/her claim. In practice, some claims are not exactly monetary, e.g., the payment was supposed to be at some future data, and maybe with some goods whose future price is not yet known. In such cases, the best we can do is to have an interval of possible values $[\underline{c}_i, \overline{c}_i]$ of this claim.

This paper analyzes how, under such interval uncertainty, to fairly divide the available assets between the creditors. It turns out that, under the same fairness conditions, fairness requires that each creditor received the payment proportional to the combination $\alpha \cdot \overline{c}_i + (1 - \alpha) \cdot \underline{c}_i$ for some value $\alpha \in [0, 1]$ – and each such division satisfies all the fairness conditions.

References

[1] U. Pham, O. Kosheleva, and V. Kreinovich, "Fair bankruptcy solutions under interval uncertainty", *Proceedings of the 6th International Conference on Financial Econometrics ECONVN'2023*, Ho Chi Minh City, Vietnam, January 9–11, 2023, to appear.