

# Review of: "The Uncertainty of Fairness: a Game Theory Analysis for a Debt Mutualization Scheme in the Euro Area"

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**Potential competing interests:** No potential competing interests to declare.

I have read the proposed paper very carefully and it is with great pleasure that I write this report.

I liked the work so much for many reasons: the theme, the definition of the problem and the solution choice through game theory. In particular, the chosen game features two players: one EU state and the rest. The model is well posed and well connected with the existing literature.

I have a few suggestions to present to the authors:

- In the description of the game, the characteristics of the players are traced: I invite the authors to spend a few more words to describe the "fairness approach" and those terms that may seem difficult to understand to those who are not experts in games when reading the paper;
- I suggest to revisit the mathematical concepts in a more rigorous way: the Cartesian product must be expressed according to the usual notation, in indicating the vectors the parentheses are missing, the same for the ball.
- Figures need to be improved: for example figure 2 should be reported with a) extensive psychological play and b) standard extensive play.
- Better explain why in section 3.1 that "the country will never offer to share more than 50% of its share".
- I would suggest revisiting the paper highlighting which introductions have been defined in the paper in order to make the reading more fluid and the paper more impactful.

After these changes, given the very interesting and current topics, the paper can be published.