

1.- The standard assumption in the literature of mixed oligopolies is that the public firm maximizes social welfare. However, in this paper, this is not the objective of the (semi) public firm when $\tau = 1$, because no weight is given to the profits of the private firm. Some comments about why the paper departs from the traditional papers are warranted.

2. The fact that both the outputs and the investment of both firms increase with τ is surprising. In a Cournot setting, if a firm becomes more aggressive (in this case the (semi) public firm when τ increases), the output of this firm increases and the output of the competitor decreases. The authors should explain why this logic does not apply in their paper. I figure out two possible reasons: the fact that firms also invest in order to reduce costs and the chosen objective of the (semi) public firm.

3. As far as the presentation is concerned, there is a lot of math in the paper. I would try to lighten the presentation.