This paper tries to investigate the effect of R&D competition on firm performance in a mixed duopoly in which a for-profit private firm competes with a public firm whose objective is to maximize a weighted sum of the consumer surplus and its own profit. The demand system follows that in Bowley (1924). Each firm engages in cost-reducing investment. The timing structure is quite standard (R&D, quantities).

This paper shows that an increase in the weight for the consumer surplus enlarges both the quantities of the public and the for-profit firms. If this really holds true, the result is a little surprising because I expect that an increase in the weight increases the quantity of the public firm, but decreases the quantity of the for-profit firm because of the strategic substitution between the quantities. Because this paper does not mention the reasons why the propositions hold, I have a difficulty to understand the mechanism behind the results in this paper. Detailed discussions on the propositions are needed.