

Responses to Reader Comment

The authors appreciate the referee's insightful comments and suggestions. Here we respond to the following questions.

1. Thank you for your reminding. Under the assumptions of final goods market being imperfectly competitive and firms with the same production and cost functions, therefore we can derive symmetrical equilibrium in the final goods market. However, we will rewrite the Eq. (1) in the revised version.

2. Eq. (18) is derived from the free entry condition in the R&D sector, please see the following details:

According to

$$\pi_A = qp_A \dot{n} - wL_A = 0$$

where

$$\dot{n} = L_A n$$

therefore we have Eq.(18), $P_A = \frac{w}{qn}$.

3. Thank you for your reminding. The variable L_x represents the labor demand of intermediate goods and final goods firms. We'll add the definition of the variable L_x in the revised version.
4. Thank you for your valuable suggestion. We will cite Grossman and Helpman (1991) in the revised version.

Reference:

Grossman, G.M., and E. Helpman. 1991. *Innovation and growth in the global economy*. Cambridge, MA: MIT Press.