## Endogenous Fertility and Human Capital Accumulation in Pension System<sup>\*</sup>

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## Abstract

This paper sets the endogenous fertility model with quality and quantity of children and aims to derive two results: one for how child-care support policies (child allowance and a subsidy for education) affect on fertility (quantity of children) and education investment (quality of children) and the other for whether such child-care policies can raise replacement rate of pension benefit or not without an increase in tax rate. The result presented in this paper are as follows. First, child allowance increases the fertility, however, decreases education investment. On the other hand, a subsidy for education investment increases education investment, however, decreases the fertility. This result shows the trade-off between quality and quantity of children. Second, child allowance and a subsidy for education investment can not raise the replacement rate even if these policies can raise the fertility or income growth rate. This result shows that it is difficult for the government to increase the replacement rate without increase in tax burden.

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Keywords: Quality and quantity of children, Endogenous fertility, Endogenous growth, Child-care

support policies, Replacement rate of pension benefit

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