Human capital accumulation through recurrent education *

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Abstract

Population aging is one of the most important policy issues in many industrialized countries including Italy, Japan, and Korea. Without appropriate policy prescriptions, it would have a serious negative impact on potential growth through reducing working age population and increasing retired age population. Under declining population, human capital accumulation is a key factor in enhancing potential growth. However, to achieve a desirable human capital accumulation, an aging society may need a different education policy than a society with larger young workers. When young population is large, it is likely that education for the young plays a key role for human capital accumulation. However, human capital accumulated in the young may become obsolete for elder workers. Thus, in an aging society where young workers are scarcer than old workers, we need recurrent education for human capital accumulation to sustain economic growth.

This paper analyzes an OLG model where human capital accumulates through recurrent education. We focus not only on education for the young which depends on learning from human capital of their parents, but also on two types of recurrent education, i.e. recurrent education in the young and recurrent education in the old, both of which improve their productivities when they become old. In the model, to the extent that the level of human capital exceeds a threshold value, the introduction of recurrent education promotes human capital accumulation.

We show that given the mortality rate, the wages, and the interest rate, the level of recurrent education in the young and the decision about whether or not to take recurrent education in the old are complementary. We also show that both declining fertility rate and mortality rate increase recurrent education not only in the young but also in the old. However, in a simulation, declining mortality rate has much larger impact on the recurrent education than a decline in fertility rate.
JEL codes: J10, I25, O15

*I am grateful to Professors Shin-ichi Fukuda and Katsuhito Iwai for their supervision. I am grateful to the participants of Macro BBL at University of Tokyo, the summer conference of the Financial Group of the Institute of Statistical Research, and Seoul 2014, the 3rd Twin conferences of APEA. All errors are mine.