Old Workers and Fiscal Sustainability in Population Aging

Tomoaki Kotera*

Institute for Monetary and Economic Studies, Bank of Japan

Preliminary-Please do not distribute witout permission

January 28, 2019

Abstract

Fiscal sustainability under population aging is currently under debate. This paper argues that old workers are the key to reducing the tax burden. To understand the quantitative impact of old workers in aging economy, I construct a general equilibrium of overlapping generation model with heterogeneous agents. The distinctive features of my model are health capital and education heterogeneity with the college enrollment decision. The baseline model describes the United States of 2010 and then simulate population aging (Year 2050). The main findings are following. In the economy where population growth rate falls and a health condition becomes better, the number of old workers would be 1.82 times larger than the baseline economy. Nonetheless, the government would have to impose somewhat higher additional tax. This additional tax would be levied more heavily if the size of old workers is smaller. More importantly, raising the full-retirement age would be considerably effective to minimize the fiscal cost of aging if more old workers stay in the labor force. Hence, the presence of old workers plays a significant role in sustaining fiscal policy.

*E-mail address: tomoaki.kotera@gmail.com. Note that views expressed in this paper are those of the author and do not necessarily reflect the official views of the Bank of Japan.