Future Changes of the Industrial Structure due to Aging and Soaring Demands for Health Care Services in Japan – an Analysis Using a Multi-Sector OLG Model in an Open Economy

Daisuke Ishikawa (Ministry of Finance, Japan)

Junji Ueda (Ministry of Finance, Japan)

Real Arai (Hiroshima University)

January 19, 2012

Abstract

We construct a multi-sector overlapping generations (OLG) model in an open economy in which population aging can change the industrial structure from both the supply and the demand sides of the economy. In particular, we shed light on the impacts of soaring public demands for medical and nursing care services for the elderly in Japan. Under the soaring public health care spending scenario, the share of health care sector expands to almost 2.5 times in 2050 relative to the base year 1985 since those services are not tradable. The growing government expenditures have to be covered by rather higher tax rates (including social insurance premiums) and severely deteriorated public debt.

JEL classification numbers: J11, H51, H68

Keywords: multi-sector OLG model, changes of the industrial structure, soaring demands for health care services

(Remarks)

The views expressed in this paper are those of the authors and do not necessarily reflect the views of the Ministry of Finance, Japan.