

Endogenous Longevity, Debt Sustainability, and Endogenous Growth

Akira Kamiguchi* and Kazuki Hiraga†

Abstract

This paper investigates whether population aging renders the economy less sustainable with regard to public debt in a theoretical manner. Our results show that the government health care expenditures per GDP and economic growth rate exhibited the inverted U-shaped pattern. We theoretically show that the health expenditures raises longevity and the possibility to explain the reason why an inverted U-shape relationship between the public debt ratio and the economic growth rate observed in the empirical studies.

Keywords: Public debt; Endogenous longevity; Endogenous growth

JEL classification: E62, H63, O41

*School of Economics, Hokusei Gakuen University, Oyachi Nishi 2-3-1, Atsubetsu-ku, Sapporo, Hokkaido, 004-8631, Japan. Tel.: +81 11-891-2731, e-mail: a-kamiguchi@hokusei.ac.jp.

†School of Political Science and Economics, Tokai University, 1117 Kitakaname, Hiratsuka, Kanagawa, 259-1292 Japan. Tel.: +81-463-58-1211. E-mail: khiraga581470@gmail.com.