## Is Growth Declining in the Service Economy?\*

Hiroaki Sasaki<sup>†</sup>

## Graduate School of Economics, Kyoto University

## Abstract

This study extends Baumol's (1967) two-sector (manufacturing and services) unbalanced growth model to analyze a situation in which, first, services are used for both final consumption and intermediate inputs in manufacturing production, and second, the productivity of the manufacturing and services sectors endogenously evolves. Using this model, we investigate how the employment share of services and economic growth rate evolve through time. Our results are summarized as follows. First, if the human capital accumulation function exhibits constant returns to scale with respect to per capita consumption of services, then we obtain a U-shaped relationship between the employment share of services and the economic growth rate. Second, if the human capital accumulation function function exhibits decreasing returns to scale with respect to per capita consumption of services, the economic growth rate decreases at first, begins to increase after some time, decreases again, and finally, approaches zero.

*Keywords*: service economy; economic growth; endogenous productivity growth; business services

JEL Classification: J21; J24; O11; O14; O30; O41

<sup>\*</sup>I thank Takeo Hori and Hideyuki Mizobuchi for their useful comments and helpful suggestions. I also thank the participants of the Seminar on Institutional Economic Dynamics at Kyoto University in 2016. I am grateful to the Nomura Foundation for financial support. The usual disclaimer applies.

<sup>&</sup>lt;sup>†</sup>Graduate School of Economics, Kyoto University. Yoshida-Honmachi, Sakyo-ku, Kyoto 606-8501, Japan. E-mail: sasaki@econ.kyoto-u.ac.jp. Phone: +81-(0)75-753-3446