

Service and Manufacturing in a Two-Sector Growth Model

Kazunobu Muro*

January 19, 2012

Abstract

We analyze structural change from manufacturing to services in a two-sector growth model. By using non-homothetic utility function where capital stock per capita increases felicity, we show that the relative service price rises along the upward-sloping saddle path even in the case that the sector producing services is capital-intensive. We examine effects of the rate of population growth or the preference to service on the relative price of service and capital stock. We show that a decrease in the rate of population growth increases the relative service price, regardless of capital intensity.

Keyword: *Cobb-Douglas GDP function; Non-Homothetic Utility; Stolper-Samuelson theorem; Rybczynski theorem*

JEL classification: E13, O11, O41

*Faculty of Department of Econoinformatics, Himeji Dokkyo University.