Energy Saving Technological Growth -The Case of Japan- *

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January,20,2011

Abstract

This paper examines the quantitative role of energy price and energy saving technological growth on the persistent decline in energy output ratio observed in the 1970s and the first half of the 1980s. Using a simple neoclassical growth model with energy as a third input, we feed two actual time paths of energy price and energy saving technological growth in order to quantify the impact of these exogenous changes on the continuous decrease in energy output ratio. Our finding indicates that the energy price has limited role, and most of the movement of energy output ratio in this period is explained by the energy saving technological growth.

Keywords: energy price, energy saving technological growth

*The author would like to thank my dissertation supervisor, Naohito Abe for his support and discussions on this paper. The author also acknowledges Etsuro Shioji, Makoto Saito, Prakash Loungani, Shiba Suzuki, Jun-Hyung Ko and participants at Macroeconomic lunch seminar, Hitotubashi University, 2010 for their helpful comments.

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