## Patent Protection, Innovation, and Endogenous Trade Status

Yuki Saito\*

## Abstract

This paper develops a two-country R&D-based growth model with endogenous trade status. We analyze the patent protection in the form of patent breadth and unilateral trade liberalization. We show that strengthening patent protection in either country (i) decreases the range of exported varieties and increases the range of imported varieties in the country that strengthened patent protection; (ii) stimulates economic growth in both countries. We also show that unilateral trade liberalization (i) stimulates economic growth in the country that liberalized trade; (ii) stifles economic growth in the other country; (iii) increases the range of exported varieties in both countries. Furthermore, conducting welfare analysis of patent protection, we find that strengthening patent protection in foreign country can improve home country's welfare.

JEL classification : F12, F43, O34, O41

Keywords : Intellectual property rights, Endogenous trade status, Innovation, Ricardian trade

<sup>\*</sup>Graduate School of Economics, Osaka University, 1-7 Machikaneyama, Toyonaka, Osaka 560-0043, Japan; E-mail : qge006sy@student.econ.osaka-u.ac.jp