

# Economic growth effects of the two IPR policies: patent and trade secret\*

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19 Jan, 2012

## Abstract

This paper analyzes the growth effects of two intellectual property rights (IPR) protection in a quality-ladder model of endogenous growth. In the model, the firm can choose how much he protects the good by patent and trade secret. Although weaker patent protection reduces the profit, it also leads firms to protect by trade secret rather than patent, which reduces R&D cost because other firm can gain much information after the secrets leaks out. As a result, there is U-shape relationship between the strength of patent protection and economic growth, and then relaxing patent protection may increase economic growth.

*JEL-Classification:* O31, O34, L16,

*Keywords:* Innovation, Quality-ladder, Patent, Trade secret, Imitation, Spillover

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\*I would like to thank Prof. R. Horii. Of course, all remaining errors are my own.

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