

**NUMERICAL ANALYSIS OF OPTIMAL DYNAMIC INFANT INDUSTRY  
PROTECTION IN JOINING A FREE TRADE AGREEMENT  
- An Application to Vietnamese Motorcycle Industry -**

**Tran Lam Anh Duong\***

*Graduate School of Economics, Hitotsubashi University*

January, 2010

**Abstract**

This paper examines the optimal time path for tariff rate imposed to infant industries in the process of joining a free trade agreement. The infant industries are assumed to be experiencing dynamic externalities under the tariff protection from the social-welfare-maximizing government. The dynamic learning-by-doing model used in the paper is developed from the basic one introduced in Melitz(2005).The numerical calibration of the model applied to a particular instance of infant industry protection - the case of Vietnamese motorcycle industry suggests that government should continue raising import tariff rate gradually while this instrument is still available. This result, which is contrary to the conventional wisdom, can be explained intuitively by the presence of dynamic learning effects. In addition, this paper also shows that this industry needs a longer and tighter protection policy compared to what the Vietnamese government has committed upon the participation in World Trade Organization.

*Keywords:* Dynamic externality; Infant industry protection; Numerical simulation

*JEL classification:* F13, F17, L62

---

\* E-mail address: anhduongtl@gmail.com