Trade Liberalization, an Employment Double-Dividend Hypothesis, and Welfare with Heterogeneous Firms

Hiroyuki Nishiyama[a,*], Sayaka Takada[b], Mizuki Tsuboi[c]

[a] *Institute for Policy Analysis and Social Innovation, University of Hyogo, 8-2-1, Nishi-Ku, Kobe, 651-2197, Japan*
[b] *Graduate School of Economics, University of Hyogo, 8-2-1, Nishi-Ku, Kobe, 651-2197, Japan*
[c] *Faculty of Economics and Business, Wako University, 5-1-1, Kanai-Ga-Oka, Machida, 195-8585, Japan*

Abstract

Can trade liberalization deliver an employment double dividend and a welfare gain? To answer this question, we develop a trade model with firm heterogeneity, search and matching frictions, and an emissions tax. We first analytically decompose the impact of trade liberalization on the amount of emissions into four forces: an increase in labor supply that leads to the larger amount of emissions; an increase in output per firm that may lead to the larger or smaller amount of emissions depending on how competitive markets are; a rise in a cutoff productivity that leads to the larger amount of emissions; and an increase in output per firm independent of market competitiveness that leads to the larger amount of emissions. When the second force dominates the others and markets are competitive enough, trade liberalization may support an employment double-dividend hypothesis, or otherwise it rejects the hypothesis. Moreover, due to these four counteracting forces, trade liberalization may deliver a welfare loss. We then simulate our model to better understand an interaction between trade liberalization, environmental regulations, and welfare. For the typical parameter values used in the literature, an employment double-dividend hypothesis is rejected. A deliberate investment in abatement technology, however, enables an economy to transit from a dirty equilibrium with higher unemployment to a clean equilibrium with lower unemployment.

Keywords: Trade Liberalization; Employment Double Dividend; Firm Heterogeneity; Welfare
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*Corresponding author. We are grateful to Yasuhiro Gintani for helpful comments.
Email addresses: nisiyama@em.u-hyogo.ac.jp (Hiroyuki Nishiyama), sky-pearl@hop.ocn.ne.jp (Sayaka Takada), m.tsuboi@wako.ac.jp (Mizuki Tsuboi)