

# Labor Market Distortions and Welfare-Decreasing International Emissions Trading.

Shiro Takeda (Kanto Gakuen University) \*

Toshi H. Arimura (Sophia University) †

Makoto Sugino (Sophia University) ‡

## Abstract

International emissions trading (IET) is generally regarded as a preferable option in the future climate policy because it not only minimizes total abatement costs but also generates gains for all participants. However, this argument is often based on the partial equilibrium perspective and ignores general equilibrium effects of IET. Using a multi-region, multi-sector CGE model, this paper analyzes effects of IET of CO<sub>2</sub> with focus on labor market distortions. We construct four models with different labor market specifications: 1) the model with no labor market distortion, 2) the model with labor market tax-interaction effect, 3) the minimum wage model, and 4) the wage curve model and examine how labor market distortions alter impacts of IET.

The main results are summarized as follows. First, when there is no distortion in the labor market, IET generates gains for all participants. Second, even if there are the labor market distortions, importers of permits generally obtain gains from IET. On the other hand, the possibility of welfare loss from IET is not so small for exporters of permits. In particular, with the minimum wage model and the wage curve model, IET is likely to generate loss to exporters. However, the above results strongly depend on regions. For example, both China and Russia are exporters of permits but the effects of IET on them are quite different. Finally, we show that IET is likely to be beneficial for all participants if policies to remedy labor market distortions are implemented with emissions regulation. Although IET is generally regarded as the policy beneficial for all participants, our analysis indicates that the view with no consideration to labor market distortions is likely to overestimate the benefit of IET.

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Keywords: international emissions trading, labor market, computable general equilibrium analysis, tax-interaction effect, minimum wage, wage curve.

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\* Kanto Gakuen University and Sophia University Center for the Environment and Trade Research.  
Email: <shiro.takeda@gmail.com>

† Sophia University and Sophia University Center for the Environment and Trade Research.

‡ Sophia University.