

# **FACTOR PRICE ADJUSTMENTS WITH WAGE RIGIDITY: IMPLICATIONS FOR THE CANADIAN ECONOMY**

**Brad Norwood**

**Department of Economics**

**University of Guelph**

## **Abstract**

Intuition may suggest that given the size of the Chinese economy, Canada could be worse off as a result of trading with China, owing to the fact that factor prices and product prices would equalize at levels close to those that existed in China in autarky. In fact, the Heckscher-Ohlin model predicts that aggregate social welfare in Canada will be unambiguously higher as a result of trade with China; there is nothing in the literature that suggests that one country dominating the change in prices will reduce aggregate social welfare in the other country. This domination of the change in prices will result in a larger redistributive effect in a small country than if the small country trade with a country of comparable size to itself, and thus experienced a smaller change in its product and factor prices and a smaller shift in its production point. Incorporating a Hicks-neutral productivity coefficient that varies by country – representing differing total factor productivities - does not change these results except that factor prices are equalized for productivity-equalized units of factors, with an actual unit receiving a factor price augmented by the productivity coefficient. Productivity thus remains important. Should China increase its total factor productivity by learning from trade, Canada could experience a gain in aggregate social welfare, depending on the parameters of the model.

When a country moves from autarky to free trade, there will typically be a period of structural change in the economy. Wage rigidity in the economy will exacerbate the cost of this structural change, limit the gains from trade to both countries, effect a transfer of wealth from capital to labour, and is likely to cause unemployment of some labour. Should capital be immobile between sectors in the capital-abundant country, the labour-intensive sector will be unable to cover its variable costs and will shut down, resulting in specialization in production, and there will unambiguously be some unemployment of labour.

Significantly, a protectionist response of tariffs, in order to shelter the factor that will experience a decline in real factor rewards as a result of free trade, will fail and actually make the domestic country worse off. Factor price equalization would still occur in the domestic country as a result of its trading partners trading directly or indirectly with the foreign country whose influence on factor prices it is seeking to avoid, while lowering aggregate social welfare in the domestic country by foregoing the gains that would result from trade with the foreign country.