Estimating Trade Elasticities for Manufacturing Industry in the OECD Countries: A Dynamic Gravity Application

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Abstract:

This study quantifies trade effects of changes in trade costs exploiting a multi-country, multi-sector framework. I use a panel of 32 OECD countries and 20 manufacturing sectors covering the years from 1996 to 2009 to estimate sectoral trade elasticities in the short run and the long run separately, and find a large degree of variation across sectors, with the estimates ranging from 1.4% to 15.5% in the short run and 6.2% to 25% in the long run. Then, I conduct two counterfactual experiments in the short run and the long run, using the corresponding sectoral trade elasticities to see how consumer welfare would have been affected under two different scenarios. Under the first scenario, tariffs remain unchanged at their 1996 level, whereas the second scenario considers, the effects of a 10% reduction in trade costs worldwide. I find that an average country would suffer an almost 7% loss in real income in the short run and 3.8% loss in the long run, had the tariffs remained at their (higher) 1996 level. On the other hand, an average country would enjoy a 3.6% improvement in real income in the case of a 10% homogeneous reduction in trade costs in the short run and 3.8% improvement in real income in the long run.

Keywords: Trade policy, trade elasticity, gravity models, dynamic panel econometrics

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