Essay 1: “Evaluating the Success of a CGE Model of the Canada-U.S. Free Trade Agreement”

Although computable general equilibrium (CGE) models have been used extensively to evaluate the potential impact of economic policy reforms, few efforts have been made to assess the predictive powers of these models. This essay considers the performance of Brown and Stern’s (1989) study of tariff liberalization under the Canada-U.S. Free Trade Agreement (CAFTA). The CAFTA represents one of the most far-ranging trade liberalizations of the past two decades and therefore offers a good opportunity to test model performance. I first test the model, using 1988 base data, against the observed change in sectoral trade, output, and employment between 1988 and 1992. The model performs well at predicting changes in trade flows, but does poorly in simulating changes in sectoral output and employment. I then adjust the model for macroeconomic shocks which were not part of the original model structure. After taking into account the changes in the balance of trade, capital stock, and labor supply, the model yields dramatically better simulation results for output and employment, while the predictions of sectoral trade flows remain relatively robust.

Essay 2: “Internal and External Returns to Scale in a CGE Framework”

CGE modelers have been criticized for their use of increasing returns to scale. Some critics contend that this reliance on scale efficiencies exaggerates the gains to trade liberalization. I address this criticism in the case of the Canada-U.S. model presented in Essay 1. I first use scale parameters resulting from partial equilibrium techniques by sector. I then re-run the simulation with these estimated parameters and compare the results with those obtained in the original model. Next, I use econometric estimates of internal and external returns to scale following Basu and Fernald (1995). Using these parameter estimates, I repeat the simulation and compare the results to those obtained using micro-level estimates and those obtained using the original model data. Lastly, I consider how the simulations incorporating the different scale parameters perform at tracking the behavior of the U.S. and Canadian economies over the period 1988-1992.
Essay 3: “Child Labor Legislation: Altruism or Disguised Protectionism?”

Recently, the U.S. Congress passed the Sanders Amendment to the FY 1998 Treasury Appropriations Act. The Amendment blocks the importation of goods produced by forced and indentured child labor. Organized labor and human rights groups in the United States were very active in the advancement of this legislation. While the protection of children’s welfare is indeed desirable, there is some question whether labor’s interest might have been in fact disguised protectionism. In this essay, I address the following questions: to what extent did organized labor influence the outcome of this vote? Is this a form of back-door protectionism, or does it merely reflect public interest group concerns for child welfare?

Alan Krueger (1997) addressed similar questions, considering the determinants of Congressional support for the U.S. Child Labor Deterrence Act of 1995, a previous effort to forbid the importation of goods produced by child labor. In order to address some econometric shortcomings in Krueger’s work, I employ a political economy model of Representative behavior and campaign contributions by labor and business. For each piece of legislation subject to a vote or sponsorship, the number of favorable votes or the number of sponsors depends on the level of campaign contributions from labor and business, as well as a number of parameters describing the Representatives’ constituency. Labor and business contributions, in turn, depend on a number of variables, including measures of the Representative’s political party, committee membership, and independent ratings according to various organizations. All of the votes and sponsorship are then estimated simultaneously using full information maximum likelihood (FIML) in order to control for any correlation in the residuals of the voting equations. Using my results, I then investigate the lobbying efforts that led to the passage of the Sanders Amendment and try to conclude whether this legislation may represent altruism of disguised protectionism.