

# **"An Evaluation of the Performance of Applied General Equilibrium Models of the Impact of NAFTA"**

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In the early 1990s the tool of choice for analyzing the impact of the North American Free Trade Agreement (NAFTA) on the economies of Canada, Mexico, and the United States was the multisectoral applied general equilibrium model. In fact, at a U.S. International Trade Commission conference held in February 1992 to which all economists studying the economywide impact of NAFTA had been invited, 11 of the 12 studies presented used applied general equilibrium models. This paper uses economic data to systematically evaluate the performance of the different applied general equilibrium models that had been constructed to predict the impact of NAFTA.

Given the importance of the NAFTA policy debate, it is surprising that no one has performed such a model evaluation exercise previously. The NAFTA presents an important policy experiment that can allow economic researchers to test modeling strategies, particularly of the specifications of product differentiation and imperfect competition that were the central ingredients of most of the general equilibrium trade models used in the early 1990s. Indeed much is to be learned from the model evaluation exercise: The models drastically underestimated the impact of NAFTA on North American trade, which has exploded over the past decade. Furthermore, most of the models performed poorly in estimating the relative impact across different sectors.

Ex-post evaluations of the performance of applied general equilibrium models are essential if policy makers are to have confidence in the results produced by this sort of model. Just as importantly, they help make applied general equilibrium analysis a scientific discipline in which there are well-defined puzzles and clear successes and failures for alternative theories.