

Abstract

With increasing global inter-dependence, a country's policy could induce technological innovation in its trading partner countries through international trade. The induced technological innovation, which may be biased as a result of the policy orientation, can have complex impact on the trading commodity, especially in a market with highly differentiated products. The paper studies the impact of a European policy induced biased technological innovation in the U.S. agricultural industry. As an important exporting destination of the U.S. apple, the European Union has lowered its Maximal Residual Level (MRL) on apples. Adopting a new technology which addresses the MRL problem, the U.S. apple producers could continue trade. Following a conceptual model on biased technological innovation in differentiated products, the paper adopts an equilibrium displacement model to capture the horizontal and vertical linkages in the apple input and output market in various scenarios. It finds that in a market with highly differentiated products, an effective policy induced technology could mitigate the trade policy shock and benefit the producers who shift their production towards the products that the policy and biased technology affect.