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An economic analysis of the impacts of trade liberalization on Asian dairy market

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Abstract

This paper develops an economic analysis of the impacts of further trade liberalization scenarios on Asian dairy markets, using a world dairy model incorporating both vertical and spatial characteristics of the world dairy sector. Japan and Korea' producers will suffer much bigger losses from trade liberalization than other countries in the region; Japan and Korea's producers get much more protection from trade distortions than from domestic subsidy. India is a potential competitive exporter if Asia is liberalized. China and India are potential competitive exporters under global free trade. South East Asia and other South Asian countries remain importers under free trade. Greater trade liberalization around the world increases exports for potential exporters and/or ease importing pressure for potential importers. The increasing order of competitiveness of Asian dairy economies sectors is found to be Japan, Korea, South East Asia, other South Asia, China and India. China and India consumers would lose from world trade liberalization, but the other countries' consumer surplus will increase.

Keywords: Trade; Liberalization; Dairy; Asia

Introduction

Dairy industries around the world are one of the most distorted agricultural sectors. In order to resolve the issue of trade distortion and promote trade liberalization of dairy products, GATT concluded the Uruguay Round Agreements in late 1993 after eight years

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of painstaking negotiations. As a component of the agreement, GATT/WTO Agreement on Agriculture (AoA) requires all GATT members to make reduction commitments on domestic support, market access, and export subsidy. The modest commitment has been fulfilled by developed countries at the end of 2000 and by developing countries at the end of 2004, with 1986–1988 as the base period for reduction. The least developed countries were not required of any reduction commitment. Now, a new round of trade liberalization in dairy sector will eventually be initiated. How will it impact Asian dairy markets?

Lee et al. (2005) examined the effects of: (1) decreasing Korea's high over-quota dairy product tariffs by 50% by 2015 and the much lower within quota tariffs and single tariffs decline by 25% by 2015 (Doha scenario); and (2) Korea completely opening its border for dairy product imports with zero tariffs. They conclude that dairy trade liberalization would cause significant increases in imports, lower prices of processed dairy products for Korean consumers, but quite small reductions in returns to resources owned by Korean dairy farmers. Dong (2005) pointed out that both Asian dairy consumption and supply show upward trends over the next decade. Asian dairy demand growth in the next decade is mostly driven by its income and population growth. Given a 1% additional growth in income, cheese consumption will increase 0.45% and WMP consumption will increase 0.39%. With a technology change which increases the yield per cow, Asian domestic milk output increases and consequently decreases its dependence on imports. Other authors have studied other issues associated with Asian dairy markets, like efficiency, competitiveness and trade potential. One limitation of current studies is that the classification of dairy products is very crude. Generally dairy products are limited to less than five products while not considering their component differences. As dairy products are much different from each other even for the same product category, this will lead to some misunderstanding.

This paper provides an economic analysis of the impacts of further trade liberalization on Asian dairy markets. A world dairy model is employed, which reflects both vertical and spatial characteristics of dairy sector. Both domestic and trade policies changes in Asia are examined. The analysis indicates how trade liberalization is likely to affect farm milk price, dairy production, consumption and trade, and consumer and producer surplus in Asian countries. A longer version of this paper provides further details on the analysis (see Peng and Cox, 2005).

Policies

China, India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, and Thailand are the main dairy products producers and consumers in Asia. For policy analysis, we focus our analysis on these countries. As all of the nine countries are now WTO members, we analyze dairy policies in this region according to the AoA, i.e. from the aspects of domestic support, market access, and export subsidy.

Domestic support

According to their different impacts on trade, domestic support policies are classified as "Green Box", "Blue Box", and "Amber Box" policies. "Amber Box" policies are those polices that distort international trade the most and have a direct effect on production. WTO members calculated how much support of this kind they were providing for the agri-