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## Market Integration Analysis in the Presence of Trade Quota Policy: A Study in the Indonesian Beef Industry

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### Abstract

Market integration is generally believed as a positive situation in imposing an economic growth and poverty alleviation, particularly in the food sector in the developing countries. With a high degree of market integration, a smooth trade flow from the surplus areas to the deficit areas will occur, and thus the transmission of price signals will improve, less price volatility, and a more competitive market. Beef is one the most important food product in Indonesia which demand tend to increase over time along with the changing of socioeconomic condition. As a response of high domestic demand of beef, Indonesian government has tried to introduce a beef self-sufficiency program. However, in order to fulfil the local demand as the priority, some producer areas impose a trade quota policy which can potentially lead some negative effects to the extent of market integration. This paper aims to analyse the effect of regional trade quota policy to the market integration in the Indonesian beef industry which combines both vertical and spatial analysis. A panel co-integration approach was employed by using monthly data covering almost all provinces in Indonesia during 2008 until 2014. Then, the degree of market integration was analysed by applying a panel heterogeneous model from 117 trade pairs. Our results found that the quota policy has a significant effect in the adjustment process between prices along the supply chain in the whole trade pairs. Some other variables representing the trade cost, trade flows, and the degree of self-sufficiency rate were also involved in the model explaining the transmissions of prices. The findings have confirmed the significant effects of these variables.

**Keywords:** Beef, market integration, panel cointegration model, quota policy