Assessment of spatial market integration for beef in Indonesia: study case in Java Island

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Abstract

Price monitoring and stabilization are essential tools policymakers use to support the provision of affordable and stable beef for the local community. Therefore, price stabilization can be effectively implemented if the relationship among regional markets is known. This study aims to assess the integration of the beef market among regions in Indonesia. Time series data for beef prices from July 2017 to February 2022 in five selected provinces of Java Island were collected. Johansen cointegration test, vector autoregressive (VAR), and Granger causality tests were applied to assess the integration of beef prices and price transmission among regions. Johansen's cointegration test result revealed no integration relationship among the areas. However, the VAR model can estimate the association of beef prices among regions in the short run. Causality tests also supported the VAR model. Price changes in East Java influenced price changes in all areas. While other provinces only affect certain regions. This study indicates that the marketing efficiency of beef commodities in Indonesia is still low, so efforts are still needed to improve it. Finally, stabilization of beef prices is also quite difficult due to the absence of price integration between regions.

Keywords: beef price, granger causality, market integration, VAR

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