Evaluation of the impacts of the Korea-US FTA on the Beef Markets in Korea and the United States: Focusing on the Market Power and Competitiveness among Beef

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Introduction

Currently Korea is one of the top ranked countries that import beef from the United States. The amount of beef imported by Korea within total US beef export is 20%.

Conceptual Framework

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Equilibrium model

[Market for Hanwoo]

\[
\begin{align*}
\Delta Q_{\text{Hanwoo}} & = f\left(p_{\text{Hanwoo}}, p_{\text{US}}, p_{\text{Korean Beef}}, p_{\text{other Beef}}\right) \\
\Delta Q_{\text{Korean Beef}} & = f\left(p_{\text{Korean Beef}}, p_{\text{US}}, p_{\text{Hanwoo}}, p_{\text{other Beef}}\right) \\
\Delta Q_{\text{US Beef}} & = f\left(p_{\text{US}}, p_{\text{Korean Beef}}, p_{\text{Hanwoo}}, p_{\text{other Beef}}\right)
\end{align*}
\]

[Market for beef cow]

\[
\begin{align*}
\Delta Q_{\text{Korean Beef}} & = f\left(p_{\text{Korean Beef}}, p_{\text{US}}, p_{\text{Hanwoo}}, p_{\text{other Beef}}\right) \\
\Delta Q_{\text{US Beef}} & = f\left(p_{\text{US}}, p_{\text{Korean Beef}}, p_{\text{Hanwoo}}, p_{\text{other Beef}}\right)
\end{align*}
\]

Simulation results of impacts of the Korea-US FTA

(Equations (1) to (16) were converted into log-difference form that compose the simulation model. The government's role by imports as well as supply and the cross-price-elasticity between different beffs in the prior studies were applied to the simulation model.)

Simulation results

\[
\begin{align*}
\Delta Q_{\text{Hanwoo}} & = f\left(p_{\text{Hanwoo}}, p_{\text{US}}, p_{\text{Korean Beef}}, p_{\text{other Beef}}\right) \\
\Delta Q_{\text{Korean Beef}} & = f\left(p_{\text{Korean Beef}}, p_{\text{US}}, p_{\text{Hanwoo}}, p_{\text{other Beef}}\right) \\
\Delta Q_{\text{US Beef}} & = f\left(p_{\text{US}}, p_{\text{Korean Beef}}, p_{\text{Hanwoo}}, p_{\text{other Beef}}\right)
\end{align*}
\]

References