This paper studies the economic effects of milk powder imports on local milk industry. Inverse demand systems are used to estimate the price and scale flexibility as an indicator for the effects of imports on the price of local milk powder and fresh milk. This study finds that among different types of inverse demand systems the generalized inverse demand system model is a better fit for the data used in this study. The results of this study indicate that the cross price flexibility of imported milk powder in fresh milk and milk powder equations are negative, implying that milk powder imports have negative impact on the price of fresh milk and local milk powder. Cross price flexibilities show either substitutability or complementarity. Morishma elasticity of complementarity was used as an adequate measure of interaction between commodities. The study showed that elasticity of complementarity are all positive, implying both tendency towards complementarity and the negativity of own-quantity elasticity.

As expected, the own price flexibility and scale flexibility are shown to be negative. The absolute value of own price flexibility for imported milk powder is the largest, implying that imported milk powder price is more sensitive to change in own good than for fresh milk or local milk powder. Consumer welfare is measured by consumer surplus and compensating variation calculated by uncompensated and compensated price flexibility respectively. As the negativity of cross price flexibility of imported milk powder indicates, fresh milk and local milk powder producers will suffer economic losses from increased imported milk powder, while the local consumer will be better off.

**Key words:** Consumer surplus, Compensating variation, Generalized inverse demand system model, Price flexibility, Scale flexibility.