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“Filling gaps and removing traps
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Price Linkages in Indonesian Palm Oil Industry

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Abstract

Environmental issues related to the Indonesian oil palm plantation expansion remain crucial. Thus, the European Union (EU) as one of the influential Indonesian palm oil and biodiesel importers took several measures. Trade policies were made to tackle the land use conversion and to prevent unfair market competition. Contrarily, the palm oil industry highly contributes to the Indonesian national income and increases the local labour usage. Domestic policies were formed to motivate an increase in palm oil quality and production. While the environmental aspect remains important, the economic aspect needs to be considered. Those policies may lead to a shock in the industry described by a structural break occurring in the relationship between palm oil price series. Observing the measurable effect of a policy implementation is able to let the industry effectively anticipate disadvantage and defend its market power. Thus, the study of the price linkages in Indonesian Palm Oil Industry is essential to be performed. Also, a multivariate price transmission study including local price in the price transmission model is scarce. The international and Indonesian (Crude Palm Oil) CPO prices as well as Indonesian local oil palm Fresh Fruit Bunch (FFB) price were the variables observed, whereby all prices were stationary in the first difference. We further tested the cointegration pair-wisely with Johansen cointegration test. Later, we employed Gregory-Hansen test allowing a structural break as comparison. We evidently found that models with structural break gave better result with lower value of Akaike, Bayesian and Hannan-Quinn information criterions. The most plausible related event to the break is the biodiesel EU anti-dumping duty implementation, which started approximately one month prior to the breakdate. This presumably affects the Indonesian CPO and local FFB prices. The generated import tariff reduces the EU biodiesel import demand which may cause a decrease in the national CPO demand. Consequently, it may lead to a decrease in the national CPO and local FFB prices. This insight is supported by the result, that the EU import tariff negatively affects not only the Indonesian CPO price but also the local FFB price.

Keywords: Gregory-Hansen test, Johansen cointegration test, palm oil, price transmission, structural break