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## How were Vietnamese Upland Farmers Affected by the Recent Strong Fluctuations of Food Prices on the World Markets?

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## Abstract

In recent years, agricultural commodity prices were subject to vast fluctuations on the world market. To understand the effects of international price fluctuations on rural households, the study of the transmission of world market prices to local markets which are most relevant for small-holder farmers and households offers important insights. Covering the dominant cash crop and the primary food crop, this research analyses the integration of maize and rice markets in Son La province, northern Viet Nam, with national and world agricultural markets.

Following an in depth analysis of the value chains of maize and rice, monthly as well as weekly time series of wholesale and retail-prices in the periods from 2001 to 2009 and from 2007 to 2009, respectively, are employed to analyse price dynamics and interrelationships using cointegration analysis and Vector Error-Correction Models.

We find that domestic production and marketing of maize are largely liberalised and highly competitive. However, no cointegration of Son La markets with world markets is found. Also, cointegration is not present between all markets studied along the domestic value chain. Yet, perfect price transmission is found between cointegrated markets.

The analysis of the rice markets yields that domestic production and local trade are largely deregulated as well. Son La markets are found to be cointegrated with the ones in the country's south as well as with world markets. However, long-run price transmission appears to be weak, so that only about 27% of a price change on the world market is transmitted to Son La province.

In conclusion, for the commodities investigated farmers in the mountainous north of Vietnam are only partly affected by world market price fluctuations. The main underlying reasons are seasonality of production and fluctuations of international shipping rates in the case of maize and high governmental influence in international and long distance domestic trade in the case of rice.

**Keywords:** Cointegration analysis, food prices, maize, market integration, price transmission, rice, Vector error-correction model, Viet Nam

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