



Tropentag, September 17-19, 2014, Prague, Czech Republic

“Bridging the gap between increasing knowledge and decreasing resources”

Transaction Costs Between Dry Bean Producer Markets in Brazil

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Abstract

Brazil is one of the main dry bean producing and consuming countries worldwide. Each year between 3 and 3.5 million tons are supplied to the Brazilian domestic market. With an average consumption of 17/kg/capita/year, dry beans represent staple crops in Brazil. Cropping systems are heterogeneous, varying from small-scale extensive mixed cropping to large-scale monoculture with central pivot irrigation systems. Brazilian dry bean production comprises common beans (*Phaseolus vulgaris* L.) and cowpeas (*Vigna unguiculata* (Walp.)). Both species are grown in three different seasons, resulting in supply over the whole year. This paper aimed to assess the presence of transaction costs in bean markets in Brazil. Therefore, threshold autoregressive (TAR) models were used to check co-integration and the existence of transaction costs in the Brazilian dry bean market. The threshold model is presented as alternatives and at least appear as a complement to traditional models of co-integration, and the model takes into account the possibility of discontinuities in the process of price transmission between markets, therefore, are usually assigned transaction costs. The results confirmed the presence of transaction costs in the bean market. The transaction costs are mainly related to freight component of production, since markets are often far away from producing regions. The higher the market transaction costs and distance between considered markets, the longer price shocks take to dissipate. Actions like improvements in transportation and communication infrastructure and reduction of fees and cash expenses as well as removing technical trade barriers may contribute to increase market integrations. Therewith, transaction costs may be reduced and markets can become more competitive.

Keywords: Cointegration, common bean, threshold autoregressive model