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Spatial price transmission analysis for selected maize and wheat markets in Ethiopia

Master thesis

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Abstract

The Ethiopian cereal sector is still characterized by volatile prices, as lately seen during the

world food crisis in 2008. However, the consideration of the integration between local

markets and world market is for the analysis of high food prices and possible strategies to

stabilize future prices, often neglected. Yet, the links between the world market and local

markets in Ethiopia are not quite clear.

Therefore, a price transmission analysis (Unit Root Test, Cointegration, VECM) using

monthly wholesale prices from 1999 to 2010, has been accomplished for four wheat and

maize markets in Ethiopia (Addis Ababa, Shashemene, Assela, Nazreth, Jimma), respectively.

Furthermore, qualitative interviews observed the underlying market structure on the different

markets and identified related problems.

The price transmission analysis showed no evidence for integration between US maize market

and maize market in Addis Ababa. Low integration between US wheat market and related

market on the national level was revealed. Moreover, there was integration between one

regional market (Jimma, Shashemene) and the US wheat and maize market, respectively,

suggested. However, there was strong evidence that these relationships were rather a

consequence of spurious results. From six observed regional wheat market pairs, all indicated

a cointegration relationship. Within the wheat sector the production market of Assela

indicated a possible price leader role. From the six observed regional maize market pairs, five

showed evidence for cointegration. For two out of five pairs, prices were completely

transmitted. The qualitative interviews exposed limitations in the market structure of the

research area related to transportation, storage, missing grading system, handling costs and

price information.

Recent high food prices in Ethiopia were not an outcome of a close dependence to the world

market, but rather a consequence of macroeconomic aspects and still strong government

intervention in the cereal trade.

Key words: Price transmission, market integration and market structure