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Has the “Dairy Package” affected milk price transmission in Italy?

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Abstract

This paper assesses if the current setting of instruments aimed at rebalancing unequal market power in the agri-food sector allow a smooth functioning of the food supply chain. We focus the attention on horizontal integration possibilities for farmers as a way to improve competition and we test empirically if price transmission along the dairy chain has changed following the implementation of the Dairy Package.

Findings in the literature suggest that market structure and the growing concentration of the processing and retail firms are the main reasons market power exertion and unequal distribution of welfare in the food chain. One may expect price transmission in the dairy sector to be asymmetric, and the Dairy Package implementation to improve this pattern.

We apply price transmission analysis to evaluate such improvement. The underlying hypothesis is that as buyer market power is exerted by actions on prices and quantities, policy measures aimed at rebalancing power in the value chain should affect price transmission by removing or mitigating any pre-existing asymmetries thanks to improved power of farmers and association of farmers. We have chosen the Italian market and its links with 2 neighbouring countries to verify this hypothesis.

First we tested for symmetry in vertical transmission (with a Vector Error Correction Model) along the Italian the fresh milk market and then we checked if horizontal integration between the Italian and German fresh milk markets. To our surprise, results showed that prices are transmitted in a symmetric way during the years under study. Then we implemented another method (i.e. Threshold Vector Error Correction Model) to point out eventual changes in the pattern of price transmission. We identified variables determining the switching from one regime to another, and we verified if transmission in the various regimes was symmetric or not. The threshold model showed the striking particularity that, for all cases under examination, 2 or 3 regimes are identified, but the vast majority of the observations fell into a single one. Transmission in the dominant regime is linear, i.e. for most of the observations price transmission is symmetric.

Our results tell us a different message than the one we expected. We could not verify changes in price transmission following the application of the measures comprised in the dairy package.

We conclude that in increasingly complex and integrated agri-food chains, buyers are able to exert their power without an actual intervention on the market (reducing quantities and prices) but taking control of the negotiating process and imposing exchange conditions that are more favourable to their interests. In these cases, price transmission models based on market power exertion are not any more an adequate tool for assessing and measuring buyers' power in the supply chain. Unlike, our test proves that if buyers' bargaining power exists, it is exerted in a multidimensional space involving many variables featuring the transaction. In such a case new methodologies are required for empirical analysis aimed at assessing power along the value chain.

Keywords: bargaining power, buyer power, price transmission models, Common Agricultural Policy