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# The asymmetric distribution of the benefit from the PDO between farmers and food producers

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# The asymmetric distribution of the benefit from the PDO between farmers and food producers

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The Protected Denomination of Origin (PDO), foreseen by the Reg. 2081/92, aims at improving the quality and the typicality of the agricultural and food products in rural areas. Linking the quality of product to a certain region, PDO seems a more suitable legal tool for granting the respect of particular ways of production, which involve both agricultural and processing phases. Considering that, even in the food products, all the chain is implicated, beginning from the raw material ; the EU safeguard should distribute the advantages of the mark along all the actors of the food chain. However, not always that happens : the aim of our research is to show that sometimes the advantages of a PDO mark (in terms of a higher revenue) are asymmetrically distributed along the agents who contribute to the final products.

The sector under study is represented by the production of buffalo mozzarella, which has recently obtained the PDO mark ; more precisely, the investigated area involves two provinces of South Lazio (Latina and Frosinone). In this area, we have selected a sample of firms, either buffalo farms and dairies, to test the existing differences between the buffalo farms, which operate in the PDO circuit and buffalo farms, which operate outside from it. Theoretically, the buffalo farms involved in the PDO channel should benefit from the PDO mark with a higher level of price for the buffalo milk.

## SOME STATISTICAL INFORMATION ON BUFFALO SECTOR

From the quantitative point of view, the sector of buffalo mozzarella is difficult to study, due to the lack of statistical data. From official information available (table 1), a strong regional concentration and an increasing trend emerge.

**Table 1 : Number of buffaloes and production of buffalo milk**

| | Absolute values | | | | Share | | Annual average rate of change | | |
|---|---|---|---|---|---|---|---|---|---|
| ***Cattle*** | ***1991*** | ***1996*** | ***1997*** | ***1998*** | ***1991*** | ***1998*** | ***91-96*** | ***97-96*** | ***98-97*** |
| Lazio | 8.700 | 24.032 | 25.690 | 29.034 | 10.44 | 16.82 | 22,53 | 6,90 | 13,01 |
| Campania | 72.800 | 102.455 | 122.253 | 124.615 | 87.39 | 72.18 | 7,07 | 19,32 | 1,932 |
| Italy | 83.300 | 143.131 | 165.403 | 172.642 | 100.00 | 100.00 | 11,43 | 15,561 | 4,377 |
| ***Production*** | | ***1995*** | ***1997*** | | ***1995*** | ***1997*** | | ***95-97*** | |
| Lazio | | 274.487 | 303.384 | | 22.50 | 20.50 | | 10.53 | |
| Campania | | 854.781 | 1.019.975 | | 70.05 | 68.92 | | 19.33 | |
| Italy | | 1.220.084 | 1.479.967 | | 100.00 | 100.00 | | | |

*Source : Istat, various years*

The majority of the cattle is concentrated only in two regions, Campania and Lazio (72% of buffalo estate is situated in Campania – prevailingly in the provinces of Caserta and Salerno – and 16,8% in Lazio – provinces of Latina and Frosinone). The same results for milk production can be recorded (70,6% of milk production concentrated in Campania, 22,5% in Lazio). While in Campania, there is an old tradition ; the expansion of the cattle in Lazio is more recent (Del Giudice, 1999). As we can see from table 1, the annual average rate of change (1991-1996) is higher for Lazio than for Campania and than the national average.

Table 2 indicates the same data for the two provinces under study, Latina and Frosinone, in south Lazio. It contains also the comparison with the cow sector.

**Table 2 : The situation in the provinces under study**

| | **Heads of cattle (%)** | | | **Distribution of cattle (%)** | | | | **Annual average rate of change (%)** | |
|---|---|---|---|---|---|---|---|---|---|
| | Buffalo heads | | | Cow heads | | Buffalo heads | | Buffaloes | Cows |
| | 1996 | 1997 | 1998 | 1996 | 1998 | 1996 | 1998 | 1996-98 | 1996-98 |
| Latina | 10.1 | 9.3 | 10.6 | 83.5 | 77.9 | 16.5 | 22.1 | -4.321 | 8.026 |
| Frosinone | 5.7 | 5.4 | 5.4 | 87.1 | 84.6 | 12.9 | 15.4 | -2.673 | 4.285 |
| Lazio | 16.8 | 15.5 | 16.8 | 92.8 | 90.9 | 7.2 | 9.1 | -2.120 | 6.506 |

*Source : Istat, various years*

From the table, the importance of the province of Latina (10,6% of national buffalo cattle) is noted, while the province of Frosinone account for 5,4% of the total national value. An opposite trend between buffalo and cow sector emerges : to the decreasing of the cow sector, an increasing trend for the buffalo sector is recorded. Therefore, in the recent years, we can see a partial substitution between the two cattle. That could be due to : a) the introduction of the milk quota in the CAP ; b) the obtaining of the PDO mark for the buffalo mozzarella, which has stimulated the demand for the product and, indirectly, for the buffalo milk. To understand the real importance of the second point (the object of our work), we intend to make an in-depth analysis on the value of the PDO mozzarella with respect to the other types of buffalo mozzarella (without mark). The hypothesis is that if there is a higher price for the PDO buffalo mozzarella than for other mozzarella, it must be a higher price for the buffalo milk sent to the PDO circuit with respect to the milk sent to produce other types of buffalo mozzarella.

## 2. THE EMPIRICAL RESEARCH

In the empirical analysis, we have tried to answer these questions :

1. Is there a difference between the price of PDO buffalo mozzarella and the price of not PDO buffalo mozzarella?

2. Are there higher production and transaction costs for the breeders who operate within the PDO circuit than for the breeders who work outside from it?

3. Is the price fetched by the PDO breeders higher than that by the other breeders?

Figure 1 synthesises our results.

From the figure, we can see a clear contradiction in the distribution of the benefit from the PDO mark. Even if the price of the buffalo mozzarella is higher than the other buffalo mozzarella, the breeders who operate within the PDO circuit, fetch the same price of the other milk producers. Notwithstanding, they sustain higher production and transaction costs (Caiati, 1995) than the other breeders. In fact, due to the respect of strict qualitative parameters, they always incur penalties and that, consequently, increases their transaction cost. Our opinion is that they rightfully must gain a higher price.

**Figure 1 : Distribution of PDO benefits**

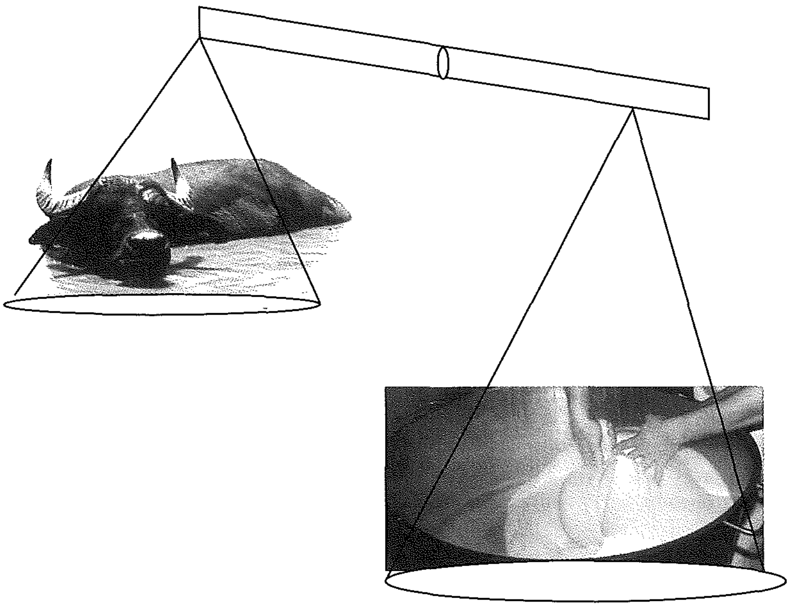
PRICE OF BUFFALO PDO MOZZARELLA > PRICE OF NOT PDO BUFFALO MOZZARELLA

PRODUCTION AND TRANSACTION COSTS OF BUFFALO FARMS WHICH SELL THEIR MILK TO THE PDO DAIRIES, DUE TO : > PRODUCTION AND TRANSACTION COSTS OF BUFFALO FARMS WHICH SELL THEIR MILK TO THE NOT PDO DAIRIES

- RESPECT OF MORE STRICT QUALITATIVE PARAMETERS
- HIGHER TRANSACTION COSTS BECAUSE OF THE PRESENCE OF OPPORTUNISTIC BEHAVIOR

PRICE FETCHED BY THE BREEDERS WHO SELL THE MILK TO THE PDO DAIRIES = PRICE FETCHED BY THE BREEDERS WHO SELL THE MILK TO THE NOT PDO DAIRIES

***Rebus sic stantibus, who cares to produce qualitatively ?***



Surely, the buffalo breeders have their own responsibility : due to the lack of contractual power with respect to the milk processors, they have had no voice in the definition of mode of production.

Then, the mode of production fit the processors perfectly, while it does not consider the role of the milk producers in the production of a quality milk. But, we think that the asymmetric distribution of the PDO advantages between the producers of buffalo mozzarella and the breeders does not support the basic idea of the law on the denomination of origin, discouraging the pursuing of high level of quality in the agricultural products.

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