Farming strategies in a continuously evolving European dairy market – a comparative case study of five different EU countries

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***Abstract* – This Paper analyses how five different European farming systems have been influenced by the increasingly volatile milk market and the strategic response that has been adopted by farmers and the dairy sector.**

INTRODUCTION

A significant task in agro-food studies is to understand how different farming systems respond to regulatory interventions and how regulatory interventions can influence resiliency. In this paper we will explore how different European dairy farming systems have reacted to the recent milk crisis and which factors may explain the reaction.

In recent years a number of events have resulted in a volatile dairy market. The gradual reduction of the CAP and the recent abolition of the milk quota system, which had been in-stalled in 1984 has resulted in a more and more global market-oriented sector. The abolition of the milk quota coincides with a number of other factors that influence the dairy price, including a reduced Chinese dairy powder market and an import ban from Russia. Hence, on a European scale the abolition of the dairy quota has has been followed by a production increase by 2,2 % 2014-2015, however at the same time prices has de-creased by 3-25 % percent, depending on the country.

DATA SOURCES AND METHODS

The article draws on statistical data on dairy production, farm structure and market configuration extracted from the EUROSTAT and FAOSTAT databases and qualitative data characterizing the farming systems in 5 different European countries (DK, G, F, LV and UK) completed as a teamwork in the SUFISA project.

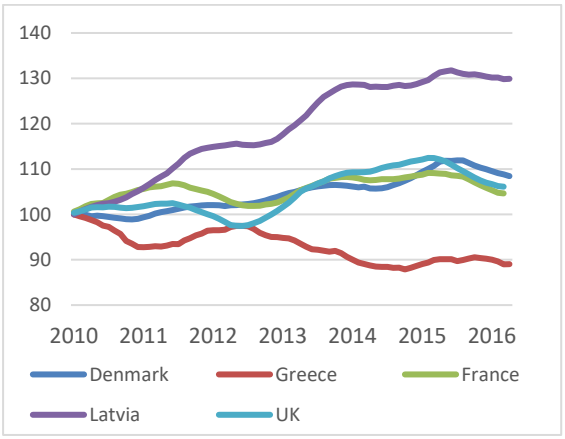

Figure 1: Rawmilk collected at dairies, 12 md running average, normalized based on 2010 data (Eurostat 2017).

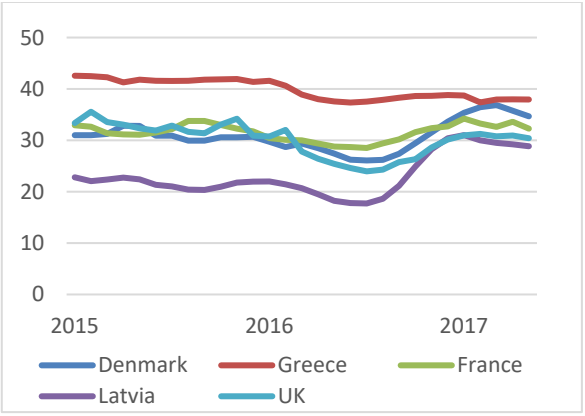

Figure 2: Monthly development in milk price (MMO 2017)

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Table 1: Farming system, dairy system and strategy in the five countires in the study

	Denmark (DK)	**France (F)**	**Greece (G)**	**Latvia (LV)**	**United Kingdom (UK)**
Farming system	Large-scale and industrialized production facilities.	Great regional difference Large-scale and intensive in some areas and extensive in others	60 % of the Greek dairy sector produce goat and sheep milk.	High share of small farms with low yielding heards.	Large-scale and modernized production facilities.
Dairy system	Strong cooperative and export oriented dairy sector about 2/3 of production is exported.	Strong cooperative and export oriented dairy sector	Both small scale local production and larger scale national and international dairies	Small-scale, fragmented and nationally oncoordinated dairy sector. Focus on home market and Russian market.	Focus on home market as UK is undersupplied with dairy products for the own market.
Strategy to manage the volatile market conditions	Crisis response has been to lower production costs pr. kg milk, by locally expanding production.	Deliberate capacity restrictions in the processing sector.	Dairies focus on production for the home (only cover about half the Greek consumption) and specialty market, where prices are quite high and stable.	Emphasis on productivity improvement	Production is flexible and adaptable to the dairy market prices. In some areas as production contracts dominate and milk supply is informally regulated by an AB pricing system.

Results and discussion

The farming systems in the different countries show quite a different response to the changing milk price, see figure 1, 2 and table 1. While 2013 and 2014 was characterized by high production volumes and promising world market prices, tables turned in 2015 where the average milk price dropped significantly. Interestingly, this development has differed in the 5 countries. Particularly the milk price in F, DK and UK closely follows the world market prices, on the other hand Greece in relatively unaffected by the world market price due to a strong domestic market orientation, hence production is also quite stable. Initially Latvia is highly influenced by the closing of the Russian market and unable to attain good prices due to an unstructured dairy sector. However, for all the countries there is a tendency towards converging prices.

In terms of milk quantity UK is most reactive, which may be due to market arrangements, such as A and B pricing (and the fact that UK dairy production has not been quota restricted). On the other hand, F is least reactive, perhaps also due voluntary restrictions in the dairy industry and DK farmers have been limited by the milk quota. LV farmers have expanded continuously, primarily by improving a low productivity. The changing political and regulatory conditions in recent years has resulted in volatile dairy market conditions. This, situation is particularly problematic for dairy producers because dairy farming require long time binds, as it is difficult to adjust production from one month to the next. Therefore, dairy farmers need stable production conditions or a strategy either at the farm or at the dairy to manage the volatile market conditions. In most the countries this market risk is passed on to the farmers, who need an internalized strategy to manage the risk, however, in F and UK the dairies have also attempted to maintain high prices by introducing a de facto limit on the dairy production.

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