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The Need for Supply Management: an Economic Rationale

Historical Perspective

Credit: Ontario Farm Animal Care Council (OFAC)
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To understand the origin and economic motivation for supply management policy, it is important to look at it from an historical perspective. This perspective, in fact, is not unique to Canada but applies to most dairy sectors in developed countries. Following World War II, dairy farms started to specialize, moving from self sufficiency to a market oriented mindset. This resulted in a greater dependence on buyers, since dairy farmers' standard of living were now almost solely dependent on milk revenues. Dairy farmers were then at a market disadvantage since many of them were selling a highly perishable product to a few regional buyers. To partially counteract the market power of buyers, some dairy farmers decided to create dairy cooperatives and many dairy farmers subsequently joined these new initiatives. At the time, milk production was highly seasonal, price variations at the farm were important and two neighbors delivering the same quality of milk could receive quite different prices, reflecting their relationship and their capability to negotiate with buyers.

At the end of the sixties, Canada started to lose its privileged access to the UK dairy market following the decision by the UK to join the European Economic Community (1973). This resulted in farm milk surpluses in Canada, low prices and the need for costly support from the federal government. At the same time, the Common Agricultural Policy (CAP) of the European Economic Community supported dairy production with subsidies, a development that resulted in overproduction and growing government support. At the time, many analysts questioned were wondering why most developed countries needed to intervene in their dairy sector? It appears that the dairy sector needs coordination that the market alone failed to provide. It is the lack of coordination that creates situations that result in need for budgetary support.

Canada's answer to the market coordination problem that generated costly government support and overproduction has been the implementation of a supply management program for the dairy industry in the early 1970s. Roughly ten years later Europe also implemented a similar system. It is also worth noting that in the U.S. a support price and Federal Milk Marketing Orders were put in place at the end of the 1930s, for similar reasons.

The Need for Coordination: Recent Example

The period 2007-2009 is a good example that illustrates the coordination problems in the dairy sector. In 2007 and early 2008, milk prices reached unprecedented high levels in international markets, including the U.S. and Europe. Dairy farmers reacted to these high prices by increasing production.

Unfortunately, at the same time the price of feed increased significantly while consumption of dairy products decreased, due to rising prices at the retail level and the impact of the global economic crisis. Thus, in 2009 the dairy sector in the U.S. and Europe was in a state of overproduction that led to a major dairy crisis. The crisis necessitated important government budgetary interventions in the U.S. as well as in Europe. The ad hoc subsidy in Europe was € 280 million and an increase in the U.S. support price resulted in a estimated supplemental cost of federal dairy programs in 2009

of $350 million (Pokononews.net November 2009, Grey et al. 2010), for a total federal support of roughly $1 billion. According to a International Farm comparison Network (IFCN) study, with the average U.S. milk price in 2009, even the large dairy farms (2200 cows in New York State) were not covering their variable costs (cost of inputs).

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In the US, the government appointed Dairy Industry Advisory Committee noted that the crisis lasted longer than it should have since in response to low farm prices, U.S. dairy farmers were very slow to reduce their production levels (why sacrifice myself for the good of the industry if the others do not?). In fact, some dairy farmers increased their production (with a negative return) in reaction to low price. This counterintuitive behaviour is explained by the imperative to maintain cash flow in order to pay bank loans and remain in business long enough to pass the crisis. In this game, one hopes that other dairy farms will go out of business in order to reduce supply and bring prices back to more normal levels. This situation is not particularly efficient given that it is the lack of market coordination (adequate supply response) that results in a rationalization of the industry and not the relative competitiveness of players in the industry, like theory would suggest. This problem has been identified by U.S. legislators and Congress is considering implementing policies that would address the lack of adequate supply response due to the coordination problem (National Milk Producer Federation, July 2010). The Committee also noted that price volatility has increased significantly over the years as dairy farms are increasing in size and further specialized. This is an illustration of the prevalence of fixed assets in the dairy sector, which magnifies the coordination problem and generate more price volatility.

During the same period, the Canadian dairy sector was unaffected by the dairy crisis. Both dairy prices and production remained stable. Importantly, the Canadian government, unlike their counterparts in the United States and Europe, did not have to intervene in the dairy industry during this world dairy crisis. It is clear that the supply management system in Canada enabled the industry to avoid some of the difficulties that were encountered in other developed countries during the 2008-09 period. Supply management is an efficient coordination tool, since it coordinates the national supply (through production rules at the farm level) and demand.

Is Dairy Production Unique?

Not all aspects of dairy farming are unique. Other sectors also have large fixed assets and major price cycles. Most commodity-based sectors such as in the natural resources sector would meet these criteria. However, natural resources have an important advantage in that their products are not perishable and can be left in their natural form for a considerable length of time before being extracted or harvested. In addition, most natural resources are exploited by large national or international firms unlike dairy farms. Natural resources production is usually greatly reduced by those firms when prices are not favourable, which facilitates coordination, as opposed to the highly disaggregated and perishable nature of milk. Nevertheless, even in the highly competitive crude oil industry, one could argue that coordination efforts are taking place as illustrated by OPEC's effort to control oil production. One could further add that when a CEO of a natural resource company decides to temporarily close a plant or a mine, he will usually not lose is job and home in the process– something that frequently happens when a dairy farmer shuts down production.

Dairy Deregulation and the Coordination Problem

New Zealand, Australia and more recently Switzerland have deregulated their dairy sector. Moreover, EU dairy policy seems to move toward deregulation, but the total level of intervention, although decoupled, is likely to remain important.

The New Zealand and the Australian dairy sectors benefit from a production structure that makes them among the lowest cost of production regions in the world (no barns, seasonal milk production, pasture base). The two countries are also major players on the international market. In fact, their domestic consumption is much less important than their exports. The two countries also have in common the fact that their dairy sector is deregulated and receives little support. However, New Zealand has an (almost) single buyer of farm milk, it dominates the domestic market and is the seller of NZ dairy products on international markets. Moreover, this (almost) single buyer and seller is a cooperative (Fonterra) own by most of New Zealand dairy farmers [1]. This is a major source of coordination of the value chain. It amounts to vertical as well as horizontal integration. On the other hand, Australia does not have a “Fonterra” and this might explain why the Australian dairy sector has struggled since total deregulation in 2000, as opposed to the New Zealand dairy sector. In fact, recently Australia had to increase its transitional help to dairy farmers with more than $A100 million.

Switzerland eliminated its dairy quota in May 2009 and created a program to compensate expected lower prices for farm milk. The result has been a 22% price reduction and increase in production with little demand response. Stocks of butter and powder have increased and it appears that the market was unable to reach a balance between supply and demand. Therefore, the Swiss government has has supported a new intervention to give each producer a reference volume. Production beyond this reference will be subject to a special levy. This is a legislative attempt at better coordinating the market[2].

Switzerland removed quota in 2009, but recently supported new limits on milk volume.s

Thus, it seems that the nature of the dairy sector calls for market coordination, even in the context of deregulation. In its absence, the theoretical promises of deregulation do not seem to materialize.

1 *Although by 1993 the New Zealand dairy sector was mostly deregulated, the Dairy Board was still in place and was by then the world’s largest dedicated dairy marketing network. In 1996 the NZ Dairy Board Amendment Act transferred ownership of the Dairy Board’s assets to the country’s 12 co-operatives. Subsequent merger discussions, legislative changes and government involvement culminated in the formation of Fonterra Cooperative Group in 2001. Fonterra is New Zealand main buyer of milk (more than 95% of the country’s milk) and act has a unique seller.*

2 *Sources: swissmilk.ch and La Terre de chez nous, November 18, 2010*