SUMMARY

Study of Measures against Market Imbalance:

What Perspectives after Milk Quotas in the European Dairy Sector?

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This document is the summarised report of a study financed by the Ministry of Agriculture, the Food-Processing Industry and Forestry (Programme 215, under Action 22) and FranceAgriMer

Procurement reference SSP-DGPAAT-2014-027

Only the authors are responsible for the content of this document, which cannot be considered as the formal position of the Ministry of Agriculture

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Introduction

Historically, the dairy industry of the European Community has been characterised by:

- a strong agricultural market regulation, established from the end of the 1960s: guaranteed prices and public storage (butter and powder), aid to exports, protection at the borders. This regulation generated an important increase in production beyond the capacities of the European market, leading to an explosion in the expenditures of the Common Agricultural Policy (CAP). In this context, quotas were established in 1984, i.e. administrative control of production, recognising as such the risk of overproduction.
- the rapid and recent deregulation of dairy markets, with a reduction in guaranteed prices from 2004 and compensation by means of direct aid, followed by the progressive increase in milk quotas from 2006/2007 to 2013/2014, until their permanent abolition on 31 March 2015.

With this deregulation, the idea was to respond to market signals by bringing consumer prices down, and to reallocate productive resources towards areas that could benefit from more favourable production and collection costs. The abolition of milk quotas was the result of an optimistic prospect, according to which demands on the international market and winning market shares in third countries would be on the increase.

But questions are being raised concerning the advantages put forward to justify this deregulation. They concern in particular (i) the high and new instability of world market prices, which affected internal prices increasingly directly, (ii) the socioeconomic and environmental consequences of the sharp drop in prices (2007-2009 and since 2014) and of the geographic concentration of milk production and processing.

Following these growing concerns, several European initiatives took place: the creation of a high level group of experts (GHN) in 2010, the adoption of the "Milk Package" in 2012 aiming at, among other things, reinforcing the position of milk producers in the industry, the new single Common Market Organisation (CMO) Regulation of 2013, and finally the launch of a Milk Market Observatory by the European Commission in 2014. However, with a new drop in the price of dairy products since 2014 and the Russian embargo on agricultural produce, the situation has been worsening and major actors have been highlighting the vulnerability of the dairy industry (particularly in 2015, through 2 reports from the European Committee of the Regions and the European Parliament), and the need to introduce new market regulation measures.

This study concerns mainly the milk industry outside protected designations of origin, and outside national markets and direct sales. In this new context of price volatility and milk quota abolition, the following questions are being considered:

- What definitions should be given to the notion of market crisis? What are the new European measures to anticipate or manage a drop in the price of dairy products and a market crisis? (Part 1)
- How do other member States, as main milk producers, intend to react to the new context of dairy markets, the abolition of quotas and the new European measures? In this regard, a detailed analysis will be carried out on major countries as producers and/or exporters of European dairy products, featuring also a variety of economic organisations in the relevant industries: Germany, the Netherlands and Ireland, as well as Poland, more succinctly (Part 2).

- What analysis can we make of the co-ordination tools promoted through formalisation by contract and interprofessional and producer organisations? The French case is examined in detail in this section (Part 3).
- In the context of price volatility, what lessons can we draw from the analysis of dairy policies in other major dairy-producing regions? Four countries are examined: the United States, New Zealand, Canada and Switzerland, which also exhibit a high variety of market (non-)regulation policies (Part 4).
- Based on the results of the study, what recommendations can be made vis-à-vis dairy market regulation tools, at the European as well as national levels? (Part 5).

Each one of these parts rely on existing literature, statistical and budget analyses as well as targeted interviews with administrative and political representatives, representatives of the agricultural profession and the milk industry, in Belgium, Germany, the Netherlands, Ireland and France.

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Part 1 - Confronted with a Crisis in the Dairy Industry, What European Measures are in Place?

1. Defining the Agricultural Crisis

Due to the generalised drop in the price of dairy products in Europe since 2014, the dairy industry has entered a phase of major concern. In France, the second largest producer of European milk after Germany, the erosion of economic results raises questions as to the durability of dairy farms. The concomitance of factors explaining this situation, from economics to geopolitics, brings us to talk about a crisis situation.

The notion of crisis is not easily grasped in economics and, by implication, nor is it in agriculture, due to the specificities characterising this sector of activity. Any reading of crisis, specifically a dairy crisis, requires a typology. In this typological exercise of agricultural crises and a milk crisis in particular, we must distinguish crises relating to the economic situation which last under a year, from more structural crises which last over a year. Based on this time distinction, we can define and characterise agricultural crises in general in order to define the current crisis affecting the dairy industry.

An economic crisis results from a temporary divergence between the supply and demand (of milk in this case). The result is a downward fluctuation in the price of dairy products which affects how dairy farmers generate an income. Insofar as the adjustment of supply and demand can take place in the course of the year, prices recover, and the crisis can be overcome by means of targeted government assistance for example.

In this case, we are definitely confronted with a structural crisis lasting over a year, with a drop in dairy product prices that began in 2014. This crisis results from chronic overproduction (increase in production, particularly in the countries of Northern Europe), and from a shortage of outlets (contraction of the Chinese demand in 2015, and repercussions of the Russian embargo since the summer of 2014 among others), strongly questioning the anticipations of the European authorities when deciding on the abolition of milk quotas. A structural crisis involves a long-lasting drop in the income of farmers, erosion in the investment capacity of producers, an obscured economic horizon beyond one year and, eventually, the restructuring of the production tool towards greater concentration.

On the other hand, it is interesting to note the absence of the notion of crisis in the text of the single CMO which privileges market "imbalance". In economics, the idea of imbalance underlies a return to balance, while the crisis, in its structural dimension, exposes the sector to a deep restructuring, with the return to balance being excluded. This opens an entire set of questions on the efficiency of the responses brought by the authorities, at the national as well as European levels, to overcome or even come out of the milk crisis in Europe.

2. Dairy-Related CAP and the New Community Margins in the Face of Potential Crises

Seemingly concerned, the European Commission has met the new price volatility with a succession of articles in the single CMO on the risks of market disruption. This also features Article 39 of the 2nd pillar on economic risk management.

Public storage and intervention price (single CMO): "safety nets" and potential public storage persist, but the level of activation is very low since 2009: 1 698 €/tonne concerning skimmed milk powder, 2 218 €/tonne concerning butter, for a farmgate milk price generally estimated at 220 €/tonne. Open periods

and yearly ceilings still restrict possibilities for fixed price intervention. For this reason, since 2007, the storage system was only activated for a few months in 2009, and again in 2015, although this time it was for limited quantities. In fact, the system no longer plays a stabilising role as far as prices are concerned. The prolongation of the activation period by the European Commission since 2014 did not change anything. Moreover, the level of intervention price, equivalent to a milk price of around 220 €/t as paid to the producer, turns out to be incompatible with the long term maintenance of most farms, which leads to demands for the adjustment of intervention prices, supported by several European and national economic actors, including France. However, such a decision met with major institutional drawbacks and raised the issue of stock clearing, in the absence of a mechanism for establishing production volume quotas and for export restitutions.

- Aid to private storage for companies (single CMO): since the single CMO, it can only be activated in case of economic difficulties in the sector, for butter as well as cheese and powdered skimmed milk. Since 2014, the Commission has activated this aid. Questions remain however on its efficiency, since it was unable to curb the drop in the price of dairy products:
 - (i) Capturing aid to private storage by private dairy processors, without any transfer to the price paid to producers, (ii) speculative behaviours from these dairy processors, with opposite effects on prices to those expected.
- Other crisis management measures (Articles 219 to 222 of the single CMO): Article 219 which serves as reference to "extend or modify the scope, duration or other aspects" of the measures of the single CMO, in case of serious imbalance on the markets. This is the Article that was used in 2014 and 2015, when prices dropped and outlets closed, to extend for example private and public storage and release a special aid of 420 million Euros for stockbreeders. It enables the Commission to intervene on the authority of the management committee (which is made up of representatives of member States) without having to go through it, which makes the procedure more rapid. Article 221 activates a much larger range of measures not provided for in the single CMO, by means of implementing acts adopted by the Commission and "if it is not possible to adopt the necessary emergency measures in conformity with Article 219 or 220". To date, it has never been activated. Finally, Article 222 gives producer organisations (PO), their associations and recognised interprofessional organisations, the means to proceed with a series of measures (planning supply in particular) that can depart from competition law, in case of "serious imbalance on the markets". It was decided to activate it in March 2016.
- The crisis reserve (Article 226 of the single CMO) can be activated "in circumstances that do not correspond to the normal evolution of the market". It was increased in 2015 to 433 million Euros. This amount appears insufficient to overcome an unforeseen situation on agricultural markets, due in particular to the fact that it cannot be accumulated year after year (drain on direct aid to farmers, paid back every year if the fund is not spent).
- Aid to mutual fund (Article 39 of 2nd pillar): only Hungary, Italy and the Spanish region of Castilla y Leon have adopted this measure at present, according to different terms. Beyond the classic criticism aimed at this type of system (concerning the systemic risk in particular, with all subscribers being affected at the same time and the funds drying up), several other difficulties are linked to this measure: (i) losses of at least 30 % of farmers' income to activate the fund with a cover of 70% of losses, where individual calculations become difficult and questions are raised concerning the rates in question, (ii) government support only for administrative costs and paid compensations, and not for the initial capital, (iii) the fund is open to all farmers as an obligation.

- European Milk Market Observatory: operational since 2014, it makes data and analyses on dairy markets available. It constitutes a real advance in terms of dairy market transparency, even if data precision is sometimes missing altogether, especially as regards (i) the margins of producers (on an infra-European scale) and other economic actors of the industry, (ii) available stocks as a whole, and mixed products. Certain institutional actors (European Parliament, FNPL and European Milk Board among others) also propose to make of it a warning tool in case of crisis.

These new measures have opened a debate, with some deeming them to be sufficient, others not going far enough to counter the current crisis. From this point of view, an amendment to the single CMO was introduced in 2013 to the European Parliament, introducing the idea that, in case of crisis, a bonus should be paid to stockbreeders who lower their production over a given period, while a surcharge should be levied to stockbreeders who increase it (beyond a specific threshold). More generally, an increasing number of major institutional and economic actors have been opting for managing the supply in case of crisis, according to various methods.

Part 2 - Dairy-Related CAP at Work in a Few European Countries

This section looks into the economic situation of the dairy industry in each member State analysed (production, processing and marketing), as well as into the economic relations between industry actors, the regulation systems at work or envisaged and the main debates concerning the future of dairy policies. We are essentially drawing the following lessons from it.

In the large producer-countries under study, one finds specific systems to regulate – in a concerted way – producer/collector relations and the way value added is shared, or even a certain stabilisation of agricultural income:

- thanks to the large co-operatives with quasi-monopoly on collecting milk (as is the case for the Netherlands, Ireland, Northern Germany and, to a lesser extent, Poland). The producers of Friesland Campina who, at the end of the year, benefit from bonuses in case of good commercial performance, consider this mechanism as a form of income smoothing. In these countries, the Milk Package and formalisation by contract appear of little interest.
- thanks to previous formalisation by contract benefitting from producers having organised themselves in POs and PO associations (as is the case in Southern Germany), where dairy products are given great value, with the existence of actual makes and the development of quality symbols.

These countries often have at their disposal other specific advantages. Ireland benefits from particularly low production costs, due to the predominance of the grassland system. In the whole of the Länder, Germany conducts a major policy in support of biogas production that, even if it is being questioned today, brings appreciable support to just fewer than 10 % of dairy farms. To this, one needs to add direct support from the 2nd pillar of the CAP, to farms that can be particularly important in that they are cofinanced abundantly by certain Länders such as Bavaria.

In each one of these countries, most of our interviews confirmed the extent to which the dairy industry was ready to pursue a high increase in production, and this despite the drop in prices. Large investments were made by producers and dairy processors alike, on which returns need to be secured at present. The end of milk quotas appears as an opportunity to greatly increase production again, in regions already benefitting from high dairy density and productive systems with lower production costs.

For all that, the market deregulation context (absence of stabilising intervention price and of quotas) and the situation of constant production increase in a context where prices are dropping, leads to increasing difficulties and tensions:

- where outlets towards third countries are weakened (Russian embargo, drop in Chinese imports in 2014/2015), each one of these countries hopes to dispose of more products in the European space where outlets are stagnating, which can only lead to an even more obvious generalised overproduction. By multiplying the search for outlets towards other third countries, these countries maintain an exacerbated competition between them;
- relations between producers and collectors/dairy processors are becoming tense, as seems to be the case in Germany in particular, with a balance of power increasingly to the advantage of dairies;
- an increase in the value of dairy products and producer margins that should decrease, as seems to be the case in the Netherlands which are currently benefitting from a relatively high price linked to exports with higher value added (cheese), but which are increasingly oriented towards exporting butter and powdered milk with a view to disposing of their volumes.

Confronted with these growing difficulties and the amplifying crisis, in all the countries surveyed, it seems that the tools recently established at the European level (reinforced private storage, European Observatory etc.) or envisaged (futures market), as well as those still in place (intervention price at very low level), are not very efficient. In Ireland, the Netherlands and Poland, most actors consider that tax policy reforms concerning dropping farm expenses or, still, bank loan guarantees can partly solve the problem, together with the private regulation of prices and volumes by cooperatives. These viewpoints, which were expressed in 2015, should be updated in 2016, in a context of deepened milk crisis.

Furthermore, vague planning desires, or even desires to control production volumes, are expressed in different ways according to countries:

- the European Milk Board (EMB) and its national unions in Ireland, the Netherlands and Germany, demand that production volumes be controlled in case of crisis (the same goes for France, with the French Farmers' Confederation (CP) and, more recently, the French National Federation of Dairy Farmers (FNPL)). In Germany, the Ministers of Agriculture of several Länders have been monitoring the situation.
- In Ireland, through Milk Supply Agreements, volumes are being declared in advance and only obtain a price guarantee on 110 % of the initial declaration. Furthermore, Glanbia has established together with producers, for a volume decided upon in advance, contracts with prices indexed on production costs and where variations are mitigated.
- The Netherlands are committed to an upper limit on the number of cows per hectare for environmental reasons, thereby introducing an indirect form of control over production volumes. In this regard, of note is the significance of environmental constraints and the increasing concerns as regards the environment and animal well-being which, in the Netherlands as well as Germany, could put a break on the transformation of production systems that could actually lead to increasing production.

Part 3 - Focusing on Formalisation by Contract in France

In the dairy industry, due to the perishable and heavy nature of milk, producers have no short-term capacity for negociation. That is why milk trading takes place within the framework of formal or informal contracts. A contract is a co-ordination system between autonomous and interdependent agents leading to the generation and sharing of profit, while favouring one's adaptation to unknown factors. However, the literature in economics shows that the efficiency of contracts is variable and relative according to partners, the nature of the contract clauses, market structure, the restrictions on the contracts by the public administration, as well as the quality and dissemination of information. Considering the high concentration of guarantees, producers without collective organisation have little market power: they are subjected to sharing profit to their disadvantage and are subjected to price risks.

1. Economic Situation and Actors of French Dairy Industry

In France, farm structure and the spatial distribution of production are highly characterised by the implementation of quotas (non-market quotas linked to land, "départementalisés") since 1984. The end of quotas is translated into contrasted growth dynamics: high growth in the plain areas of the Great West, the North and the East, farms in mountainous regions no longer being profitable and the abandonment of farmland in intermediary areas. At the dairy collection and processing levels, France is characterised by i) a diversity of operators (many SMEs of which 5 in the top 25 worldwide), ii) the weight of private operators (55 % of processing/45% of collection) and iii) a strategy of differentiation/diversity of products and a stand on quality products.

2. Historical Perspectives and Regulatory Framework

The first groupings of producers emanate from the Act of 1962. Structuring into interprofession took place in stages: payment of milk according to quality in 1969, regional dairy interprofessions in 1974 and national dairy interprofession in 1997 becoming the place where milk price is negotiated. The establishment of milk quotas in 1984 also contributed to the collective management of the industry. Indeed, the choice of non-market quotas, linked to land, rooted at the *département* level, led to the elaboration of allocation rules within the framework of comanagement between profession and public administration.

In the French context, where private companies process more than half the milk production, the progressive elimination of quotas, the interprofessional agreement on milk price being questioned by the French General Directorate for Fair Trading, Consumer Affairs and Fraud Control (DGCCRF) in 2008, and the fear that milk collection will be abandoned following the bankruptcy of several dairies in 2009, have led the farming profession and the public administration to favour, as early as 2010, the emergence of compulsory formal contracts and producers organisations. This French initiative was reinforced by the adoption of a series of measures at the European level in 2012 entitled "Milk Package". These measures offer a European framework to establish written contracts between producers and dairy processors, encourage the creation of producer organisations (POs) on a wide territorial basis (up to 33 % of national collection and 3,5 % of European production), give POs the possibility to negotiate milk prices collectively without transfer of ownership (subject to previous percentages) and recognise interprofessional organisations. Finally, in the quality product industry, collectively monitoring the PDO/PGI-labelled cheese supply was also made possible.

In 2014, in France, the Consumer Protection Act and the Future of Agriculture, Food and Forestry Act (LAAAF) have been contributing to "the development" of contract frameworks with, in particular, the introduction of a compulsory price renegotiation clause in contracts older than 3 months (in case of fluctuation in raw agricultural and food material prices), and the reinforcement of mediation in formalisation by contract.

3. Formalisation by Contract

Following the example of 12 member States, France opted for compulsory contracts (specifically long-term contracts of 5 to 7 years, as opposed to 6 to 12 months). 91 % of producers signed contracts. Even if, to date, individual contracts are the only ones legally valid in France, simple individual contracts are in the minority. Producers progressively organised themselves with a view to also elaborating a collective framework (framework contract with implementation contract or operating agreement), although not without difficulties.

The first contracts (signed in 2011-2012) relied very much on the previous institutional framework: i) price calculation methods making reference to interprofessional indicators, ii) the last quota reference on 31 March 2015 was used as contractual reference, iii) payment according to quality making reference to regional interprofessional grids (even if some dairies are able to grant specific subsidies in addition). However, differences can be observed in the more or less strict management of volumes (with more or less high penalties in case of excess, management of seasonality) and the greater or lesser responsibility confered upon POs in the collective management of volumes. Despite the abolition of quotas, French producers generally remain highly constrained as far as volumes are concerned. With formalisation by contract, dairies have indeed taken volume management in hand and producers are sometimes compelled to buy contracts in order to develop. The transferability and commodification of contracts are problematic in that they create additional expenses, and go against the elaboration of transparent rules for market access by POs.

On the whole, producers suffer from a lack of information from dairies intended for POs, from a lack of expertise in negotiating contractual clauses (establishing the renegotiation clause in particular), and from the activation deemed abusive of the safeguard clause by dairies, which allows them not to pay more for milk than their competitors do.

As such, contracts compel producers to absorb the entire price risk and deliver milk to dairies, under conditions (volume, seasonality) and with a shared value added which are not to their advantage.

4. Producer Organisations: Variable Degrees According to Dairies and Territories

French law distinguishes two types of Producer Organisations: i) the commercial PO that, as the owner, sells the production of its members; ii) and the non-commercial PO that, through collectively negotiating sales contracts on behalf of its members, markets their production with no transfer of ownership. The second type of PO, which is recognised by European law, constitutes an exemption to the competition law for the collective negotiation of contracts. Although creating POs depends entirely on their future members, in reality trade-union activism and dairies have played an important role in their emergence.

In October 2015, 51 POs were recognised and represented 40 % of volumes delivered to private dairies. Producers' PO membership rates vary between 30 % and 90 % depending on dairies and territories. The majority of POs are associations structured according to dairy production sites. They are vertical POs with a regional dimension. There are over a dozen POs for large dairies, with in certain cases several vertical POs making deliveries to the same dairy, coexisting on the same territory. Transversal POs are exceptions as far as standard milk is concerned. PO France Milk Board, which groups together members of the Independent Milk Producers' Association (APLI), the CP and Rural Co-

ordination, had three transversal POs recognised, covering the entire French territory, with 268 million litres or 1 % of the national collection, as well as PO Vosges Milk Producers' Union (UPLV) with 0,5 % of the national collection, and PO Bassin Centre with 0,4 % of the national collection. PO fragmentation and the low representativeness of some (such as PO Lactalis in particular), raises issues as to the capacity of POs to negotiate with dairies.

Moreover, the French regulatory framework imposes on POs to make a salaried employee available (0,5 ETP - 0,25 ETP for quality product industries) in order to negotiate and organise themselves. However, neither the organisers nor the professionals have had access to even one initial training session. Yet, organising and negotiating require being in possession of the right information, having legal and commercial skills to analyse such information and act accordingly, and benefitting from logistics. So far, POs have relied on i) mobilising elected representatives, ii) partnerships with other local POs and iii) the services of legal counsellors. At the national level, the FNPL has put POs in contact with one another and favoured the search for common solutions (ongoing examination to standardise POs' information system).

The POs of large national dairies (such as Lactalis and Savencia) have begun to organise themselves into national vertical associations. PO association Savencia is, legally-speaking, the most advanced PO (request for being recognised as an Association of Producer Organisation) as well as organisationally-speaking (high representativeness, collective negotiation of prices and obtaining a role in the collective management of volumes). However, this vertical PO did not lead producers to obtain better prices for their milk.

5. Co-operatives and Formalisation by Contract

While formalisation by contract does not affect the duration or nature of the co-operative commitment, it makes the terms and conditions by which milk price is determined and volumes are accessed, explicit to members. Moreover, through their status, co-operatives are compelled to take on all the milk of their members. As such and unlike private dairies, they cannot rely on the volume clause of a commercial contract to directly limit their milk flow in a system with no quotas. They are confronted with the issue of managing upstream volumes and keeping a balance between processing capacity and negotiated markets and, with this objective, must define rules within the co-operative framework.

The first French milk co-operative, Sodiaal, was quick to establish a double volume-double price system to manage supplies. Volume A corresponds to a fraction of the 2015 quota reference, and the price remains largely based on a combination of interprofessional indicators (price A). Volume B, as the development volume, enables producers who desire it to increase their references, but at a price corresponding to the butter/powder value of the co-operative (price B). Volume and price C (the control price, which is very low) were created much later to limit overproduction. Sodiaal's objective as the French leading co-operative is to find ways of developing internationally following the example of its European competitors, and to enable producers who desire it to grow, while limiting the impact for producers who do not want to develop. Other co-operatives remain with an average price and a volume linked to the quota reference (where the Board of Directors did not grant any development possibilities for the current production year). Intermediary situations have also been observed.

On the whole, the price paid to producers, beyond price formulas, follows from a decision of the Board of Directors relating to the co-operative's development capacity. Furthermore, limiting the transfer of price volatility to producers is under examination (taking production costs into consideration, applied costs making it possible to absorb

fluctuations etc.). Amalgamation or at least co-operation between co-operatives also appears as a lever of adaptation to massify the supply, conquer new markets and, as such, create value that can be partly redistributed to producers.

6. The Role of Third Parties in Regulating Contracts

The French public administration elaborated a regulatory framework, aiming at securing the destiny of stockbreeders in an environment devoid of milk quotas. However, the late incentive for producers to organise themselves collectively and massify the supply, with no financial or human support, was not enough to mobilise them, all the more since dairies did not always play along. Furthermore, the extent of the crisis had not been properly anticipated. The mediation established by the LMAP and the LAAAF relies on the principle of mutual concessions with no possibility for arbitration, which means that there is no recourse in case of dispute. POs have not been integrated into sector-specific authorities (except in dairy area conferences as guests), nor do they benefit directly from their expertise. FranceAgriMer, for example, only has a monitoring and checking role as regards POs and does not offer them any specific accompanying programme.

Between 2010 and 2012, French Dairy Interbranch Organisation CNIEL positioned itself as a facilitator for contractual procedures. It elaborated a guide to good practices and endowed itself with an Interprofessional Commission on Contractual Practices (CIPC), aiming at enlightening actors and dealing with disputes. Paradoxically, CNIEL missions appear weakened. Due to the lack of consensus between the three colleges, POs are not interprofessionally represented and economic issues are disposed of altogether. Interprofessional Regional Centres of Dairy Economy (CRIEL) keep playing a role as regards milk payment based on quality. They could take over as far as dairy area conferences are concerned, by creating an interface with the public administration favouring dialogue, project set-up and requests for Europen financing in particular.

Trade-union activism has contributed to structuring POs, but the process is not successfully completed. Support for building POs or PO associations in dairy areas is insufficient. Moreover, the distribution of roles on economic issues still needs to be worked out.

7. Comparative Approach of Formalisation by Contract in France and Germany

Germany is not part of the 12 member States that have made written contracts compulsory. On the other hand, it is together with France one of the only member States to have seized the opportunity offered to producers, within the Milk Package framework, to group together into POs. This decision can be explained by the fact that co-operatives in the south of Germany and in France have relatively little weight. German POs benefit from less restrictive recognition criteria and are distinguished by the fact that: i) their establishment is older than French POs; (ii) they are horizontal POs and can sign contracts with several dairies; iii) the individual contracts of producers are accompanied by a collective agreement; and iv) they subscribe to the principle of total input following the example of the co-operative system. Moreover, POs have federated into central associations: two are in charge of negotiating the milk price, and two have a mission to keep up with information. The most important, Bayern MEG (2007), groups together 64 POs in three Länders (Bavaria, Bade Wurtemberg and Hesse), and has a professional negotiator. In the end, almost all the milk in Germany, outside of co-operatives, is negotiated collectively by POs.

Part 4 - Milk Regulations in Third Countries

Dairy market regulation methods have known deep modifications. Sometimes these spread over many years as in the United States, or were clearly more abrupt as was the case for the abolition of the New Zealand Milk Board in the 1980s, or the end of the milk quota system in Switzerland. In all these dairy economies, the increased variability of milk prices and inputs, since 2007, has put additional pressure on the adaptation capacities of these industries. Moreover, the Canadian milk industry reveals a much contrasted dynamic, with the regulation method of supply management having been maintained to date. Consequently, these four countries show a variety of situations which can turn out to be useful when examining the French and European cases.

1. Analysis of the Dairy Policies of Each Third Country

In New-Zealand, there is no direct instrument for regulating or supporting the dairy industry. The economic reform of the mid 1980s took almost all the tools of agricultural policy away. Since then, the dairy industry of New-Zealand has had to rely on the results of the international market to guarantee its durability, since 95 % of the country's production is exported.

In the United States, price support saw its importance diminish at the beginning of the 1980s, and in the end disappeared completely with the more recent 2014 Farm Bill (which authorises and funds programmes through to 2018). The resulting price volatility on the market was counterbalanced by counter-cyclical payments from 1999. Today, several instruments are in place; they are described below.

The Margin Protection Programme for Dairy Producers (MPP-Dairy) offers basic protection aiming at guaranteeing a margin of 4,00 \$/cwt¹ (69 €/kl). Apart from administrative charges of 100 \$ per annum, this basic protection costs nothing to the producer who can choose a cover rate of up to 8,00 \$/cwt (138 €/kl) maximum. This additional cover works like an insurance cover, in that the producer must pay an increasing premium according to the level of cover chosen. In addition, the primium increases for deliveries greater than four million pounds (± 200 cows). The margin calculation is based on the average milk price in the United States and on the cost of a typical milk ration composed of grain-maize, lucerne hay and soybean cake.

Despite a significant drop in the production price of close to 30 % compared to the previous year, 2015 ended with payments from the Programme to only 0,6 % of producers who had chosen the maximum cover of 8,00 \$/cwt. Payments were modests, reaching a maximum of 0,50 \$/cwt (9 \leq /kl) for the March-April period. However, when taking into account the premiums paid to the programme, net payments were negative throughout the year, except for only one period where they reached 0,02 \$/cwt (0,3 \leq /kl) for production volumes under the threshold of four million pounds. This context of low programme intervention, even during a period where prices are collapsing, most likely explains the results of the programme membership for 2016. The share of total production registered in the programme has been maintained at 70 %. However, 61 % of the total production is registered for the minimum cover of 4,00 \$/cwt, against 42 % in 2015. Consequently, only 8 % of the total production is registered for higher covers compared to 27 % in 2015.

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¹ cwt = centum weight = one hundred (US) pounds of milk.

The second phase of the 2014 Farm Bill provides for an intervention on the market, in case of a drop in the margin of producers below the threshold of 4 \$/cwt (69 €/kl) for two consecutive months. The Dairy Product Donation Programme (DPDP) holds that the United States Department of Agriculture (USDA) will then have to intervene to acquire dairy products at market price, and not at a predetermined guaranteed price. It will not be possible to store products acquired by the USDA for subsequent usage. They will need to be redistributed on the home market for food programmes for low income families. The USDA will have to cease its purchase programme at the end of three consecutive months of intervention. It seems obvious that the rules of this programme were drafted in such a way as to restrict its intervention over time, and that it will have a low impact on the market.

In Canada, the dairy industry remains one of the only ones to be regulated by a system of production quotas. The Canadian dairy policy creates a particularly stable environment for the entire milk industry. However, for this to happen there is a price to pay, which is the lack of growth perspective for the country's dairy activity: the Canadian dairy market is rather mature, the entire population shows a low population growth and exports have a ceiling. In addition, production prices as a function of production costs are not in line with international dairy product market prices.

In Switzerland, the abolition of milk quotas in 2009, after 32 years of application, came about a few years before that of the European Union. It was accompanied by the establishment of a joint-trade organisation with the necessary power. This joint-trade organisation began its activities in the unfavourable context of the dairy market crisis of 2009. While it was to establish a target price for milk, it also tried – unsuccessfully – to extend its initiative to the management of quantities. Differences between members of the joint-trade organisation and groups of producers in particular, ended up limiting that initiative.

A new interprofessional regulation came to light in 2013 with, once again, ambitious objectives to discriminate against production prices per market segment and to regulate the supply. We have to admit that, again, the system is still not working satisfactorily. The clause requiring the notification of annual quantities per segment that are the subject of a purchase agreement for each civil year, is not respected, nor is the clause letting each producer produce or not Category C milk freely, with the excess residual milk being transformed and cleared through exportation. In this logic, the production of Category C milk is no longer individualised and the increase in milk collection leads to a drop in the blended price which is passed on to all the producers.

Altogether, the Swiss State withdrew from dairy market management, leaving the place to a divided joint-trade organisation. However, direct decoupled large-scale payments (of 2800 CHF or 2570 EUR on average per hectare in 2013) do not seem to be questioned.

2. Comparing Dairy Policies

The following table compares the main dairy policy tools available in each country. The table also includes the European Union, based on the lessons drawns from the previous sections of this document. On examining the table, we can see two extremes emerge: the Canadian dairy industry which benefits from all available gears with the supply management system, except for direct payments, while that of New-Zealand has no dairy policy tool at its disposal. The United States are in an intermediary position with the MPP-Dairy which constitutes a counter-cyclical intervention tool. However, subscriptions to this programme leave most of the production with a low level of protection. Switzerland as to her shows minimum intervention on the markets, from a Federal State that prefers to leave it to a joint-trade organisation, with little success. On the other hand, direct payments are very much present and by far higher than what is done in the other countries being analysed. Finally, in the European Union, it is also

about minimum but efficient intervention on the markets, complemented by direct payments although less significant than in Switzerland.

The notion of crisis does not exist in New-Zealand, or at least in the sense justifying the specific intervention of the goverment to support the dairy industry. In the United States, the 2014 Farm Bill finds itself defining implicitly the notion of milk crisis or market imbalance, with an intervention threshold of 4 \$/cwt for the two programmes. As such, this is a crisis income threshold (dairy margin) under which the Farm Bill intervenes automatically, by means of modest intervention measures on the market as well as direct payments to producers. As things stand at present in Canada concerning dairy regulations, the notion of economic crisis or market imbalance has no meaning. This system, which makes it possible to match supply to demand at the desired price, generates great stability as far as market prevalent conditions are concerned. As to the Federal State of Switzerland, even if it has renounced all direct intervention in controlling production, it provides significant protection at the borders for ultra-fresh products, thereby maintaining production prices higher than European prices. For all that, it does not make provision for special measures to limit the whims of the market.

Finally, of note is the fact that, today, voluntary mechanisms for limiting production are not used in any of the countries analysed. Such programmes did exist in the United States through the USDA, in 1984 and 1985, or still through dairy co-operatives more recently, from 2003 to 2010. Confronted with the low impact these programmes have had in temporarily slowing down production growth instead of decreasing it, the USDA abstained from establishing new ones. As to dairy co-operatives, they deemed it more efficient to support dairy product export initiatives.

Table 1 – Dairy Policy Tools Used in the United States, New-Zealand, Canada, Switzerland and the European Union

	United States	New- Zealand	Canada	Switzerland	European Union
Control of supply	None	None	Quota adjusted to the local demand	None	None
Intervention Price	None	None	Based on production costs	None	Determined at a low level a priori
Interven- tion on the market	Dairy Product Donation Programme – low impact	None	Linked to Intervention price	Delegated to joint-trade organisation (necessary power)	Linked to intervention price and private storage
Direct Payments	Dairy Margin Protection Programme – conter-cyclical programme	None	None	Very considerable	Considerable
Control of Imports	Tariff Quotas and Out-of- Quota Tarif Rates	None	Tariff Quotas and Out- of-Quota Tarif Rates	Tariff Quotas and Out-of- Quota Tarif Rates	Tariff Quotas and Out-of-Quota Tarif Rates
Public Subsidies for Exports	None	None	None	Yes (Chocolate Act)	Provided for in the single CMO but prevented by the Nairobi WTO Agreement

Finally, we have examined the mechanisms for determining milk prices through negotiation between producers and dairies in each country. They are summarised in the following table. They vary highly from one country to the next. In the United States, the minimum producer price fixation parameters are determined as part of the Milk Marketing Orders (MMO). In each MMO, dairy processors pay a differentiated price for milk depending on how they use it in the end. To do this, milk categories are defined and a minimum price is established for each one. Production prices are then balanced out in each MMO, with all producers receving the same average minimum price. Producers benefit from a minimum price guarantee which they do not have to negotiate within the framework of their delivery contract with a given dairy.

In Canada, the way Marketing Boards and the Quebec Milk Producers' Joint Plan function, means that producers do not have to negotiate individually with dairies, irrespective of the terms of the delivery contract. The Joint Plan is an organisation for compulsory marketing, where all milk producers in Québec have to market their milk through it. As such, determining the production price of the milk, negotiated directly on the basis of the federal support price, is

done within the framework of the Joint Plan. As in the United States, buyers pay a high price for milk, all the more since the products they manufacture have greater value added. In addition, in Canada and Québec, the Joint Plan becomes highly significant when it supplies first and foremost factories that make highly profitable products. This system is complemented by a price adjustment mechanism between producers. Furthermore, milk producers have chosen to also practice a transport cost adjustment, which means that irrespective of the location of a producer in Québec, he receives the same net farmgate price.

Table 2 – Milk Price Determination Mechanisms in the United States, New-Zealand, Canada, Switzerland and France

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	United States	New- Zealand*	Canada	Switzerland	France
Price Paid by Dairies	According to usage by dairy product category	Determined by Fonterra	According to usage by dairy product category	According to usage in each product segment	Variable from one dairy to another, sometimes by segment
Supplying Dairies	Private negociation	Private negociation	Collective negociation. Priority given to more profitable categories	Private negociation	Private negociation on the basis of former quotas
Basis for Determining Prices	Wholesale price of dairy products and price differential between pre- established categories	Global market price	Production cost	Target prices of joint-trade organisation	Reference to interprofessional indicators Competitive price between dairies
Process for Determining Prices	Monthly minimum price per category determined by MMO within the framework of a federal law	Price announced by Fonterra and adjusted according to the market	Collective negociation per province. Fixed price by adjusted category according to the intervention price	According to increase in value on each one of the three segments (A, B and C)	Prices generally determined by dairies and adjusted according to the market
Production Price	Minimum price adjustment per MMO	Unique price and dividend according to shares held by Fonterra	Price adjustment by province	Weighted average of prices A, B and C by dairy processor	Variable according to dairies

Remark: * The case of Fonterra which controls almost 90 % of collections.

In New-Zealand, with the central role played by multinational dairy co-operative Fonterra which controls close to 90% of collections, all producers who deliver to this co-operative receive the same price for their milk. This price is based on Fonterra's international sales structure. Where producers are guaranteed to recover most dividends paid by Fonterra, this guarantees them to capture the profit resulting from the price discrimination practiced on its sales by Fonterra on the international market.

In these three cases, there is a production price adjustment mechanism which guarantees producers a uniform price, for the whole country in the case of New-Zealand, by MMO in the United States and by province in Canada. Moreover, the price determination structure enables producers to recover a portion, at the very least, of higher increases in value allowed by certain dairy products, through price discrimination mechanisms². In none of these cases do producers end up negotiating individually or in small group price and delivery conditions with dairies.

In Switzerland, profits made on the price of fresh produce sold on the national market, make it possible to determine a production price for this market segment at a higher level than that of the other market segments. However, in the absence of production control, an increase in the manufacturing of dairy products in the least remunerative market segment (segment C), will weight on the average price of the milk produced.

Finally, in France, there is no mechanism to standardise prices paid to producers, whether at the national level (despite the reference to interprofessional indicators) or at the regional level, nor is there a systematic market segmentation enabling producers to capture profits on products with the best increase in value.

Part 5 - Recommendations

1. Recommendations Relating to Price Volatility and Milk Producer Incomes

Recommendation $n^{\circ}1$ - Regulating production volumes in case of crisis: a currently indispensible system to counter overproduction

Increasing intervention prices is an interesting option but it is not yet fully accepted within the European Union. However, without volume regulation systems, the stimulation of production beyond the absorption capacity of markets becomes a problem.

Choosing national, regional or company systems for controlling supply does not seem coherent in a perspective of internationalised market. The French industry would risk regulating European supply with no real impact on prices and to the benefit of the industries of the other countries. From this point of view, the decisions at the meeting of the Agriculture Ministers in March 2016 (with the activation of Article 222 of the single CMO making it possible for producer and joint-trade organisations, as well as for co-operatives, to come to an agreement "voluntarily and temporarily" and jointly on production thresholds) are insufficient.

We recommend that the regulation of volumes be a co-ordinated effort and a true incentive on the European scale, to be launched in case of crisis through Article 221 of the single CMO. However, a system consisting of subsidies paid to producers reducing their volume presents limitations, considering the experience of the third countries examined (high volume increase from other producers, reacting to better prices). We are rather inclined to favour deterrent penalties at the level of collectors failing to respect the requested temporary reductions (cf. first recommendation made by the French delegation at the agriculture ministers' meeting in February 2016). We will then need to deliberate more specifically on potential conditions so that reductions take place automatically in consultation with producers and their organisations, as well as with the authorities according to defined objectives.

Another possibility, with the aim of temporarily reducing volumes, is to explore how support systems, such as intervention prices or mutual funds, can influence the control or reduction of production volumes. Finally, another system of indirect limitation of production volumes, although in a non-temporary way, could be the establishment of maximum animal loading, adjusted according to certain parameters, as has been suggested in the Netherlands.

Recommendation n° 2 - Establishing systems complementing incomes in case of crisis

The study of futures markets, in the United States, shows that these do not represent a price risk management tool as efficient for producers as some believe. They do not lead to stabilising prices or to guarantying a price level ensuring the durability of dairies. Furthermore, our report highlights significant limitations in relation to private storage.

Some of the systems implemented in third countries (counter-cyclical payments in the United States in particular) could be explored further for the CAP after 2020. However, they reveal limitations to be taken into account, whether concerning budgets or CMO commitments.

Two other systems already seem conceivable:

- Reinforcing mutual funds, a measure which is available within the framework of the 2nd pillar of the CAP, with its terms and conditions requiring modification in order to be efficient (public funds to be used in creating the initial capital for example);
- Reinforcing the European crisis reserve and modifying the yearly budgeting.

Recommendation n° 3 – Specifically supporting farms in disadvantaged areas, small and middle farms as well as those offering more environmental or social services, within the framework of direct aid systems

Following market deregulation, there is a risk that the resulting imbalances are going to destabilise farms with accumulated difficulties such as, in particular, low milk density in the region, small farming capacity or higher production and collection costs, especially in mountainous areas. Specific support to these farms, which comes under the public objectives of agricultural multifunctionality, concerns CAP subsidies which are paid to them directly, by means of coupled and decoupled subsidies of the 1st and 2nd pillars. Today, significant measures are in place to pursue a redistribution of CAP subsidies in their favour.

Recommendation n° 4 - Supporting local products and the food demand

The exemple of the American case advocates the reinforcement of territorial food programme development policies, particularly through institutional catering, and the establishment of a European food policy, for example for food donations over a given period, and creating outlets.

Recommendation n° 5 - Focusing on the external trade policy

The substantial level of customs duties applied to dairy products must be maintained, including within the framework of bilateral free-trade agreements.

2. Recommendations relating to balancing contractual relations

Our comparative analysis conducted with Canada, the United States, New-Zealand and Switzerland, indicates that only in the European Union are milk producers left to negotiate individually with downstream industries – particularly in countries with a low rate of milk collection by co-operatives. In France in particular, dairy market deregulation and formalisation by contract have generally been translated into a weakening of producers faced with downstream industries. In Southern Germany, even if we can draw lessons from the situation, things are not much more positive as regards milk remuneration. This established fact advocates the detailed revision of rules concerning formalisation by contract.

Recommendation n°6 - Massifying supply: territorial PO associations and increased representativeness

In order to restore the balance of power in the industry, it is in the interest of POs to group together into territorial-based associations, as close as possible to the limit of 33 % of national collection and 3,5 % of EU production, making it possible, as in Germany, to conduct negotiations with several dairies, while adapting to the specificities of the production area. These PO associations in production areas could also be open to the milk sections of co-operatives with a view to pooling information. The creation of strong territorial PO associations comes up as a preliminary condition for negotiating second generation contracts.

Reinforcing the missions of PO associations (representation with sector-specific authorities, access to information and diffusion to members, negotiation of framework contracts, co-ordination of contractual volumes, as well as access to funds and training) appears in other respects as a lever to encourage producers to subscribe to these missions and reinforce their representativeness. During a second phase, the transition towards commercial POs and the adoption of a co-operative status should be considered, thereby reinforcing their margin for manœuvre.

Recommendation n°7 - One framework contract per PO association

Giving contracts a collective dimension could serve as a lever to bring producers out of their bilateral relationship with dairies. This French particularity, compared with the cases examined, leads to an imbalance in contractual relations which is not in favour of producers. A framework contract between PO associations and dairies would enable producers to negotiate collectively, for a specific production area, the conditions under which they could access the market with several dairies. It would enable them to at least negotiate prices and volumes jointly, at the level of the PO association. PO associations negotiating contract clauses relating to volumes would lead to i) reducing or even eliminating individual constraints (mutualising underproductions and overproductions between producers of PO associations) and ii) giving new development prospects to producers (elaborating transparent rules for allocating volumes, or at least for reallocating volumes freed by the cessation of activities), thereby resolving the issue of transferability. The framework contracts of PO associations would become an essential part of members' individual contracts. More so, certain clauses could become enforceable, i.e. decisions could be extended to all the producers, subject to observing rules and regulations.

Recommendation n°8 - The need for arbitration

Arbitration has shown its limitations as far as the balance of contractual relations is concerned. Mechanisms for the performance of contracts coming under general public policy do not seem adapted either, due to the low amount and frequency of transactions. The creation of an ad hoc mechanism able to conduct arbitrations, like the Régie québécoise, would be more suitable.

Recommendation n°9 - Reinforcing transparency

Following the example of the American market monitoring system or the Spanish observatory for contractual relations, the regional, national and European information systems could be completed with a view to improving the transparency of contractual relations. Beyond the nature and quality of information, it seems important to place POs and PO associations at the centre of informational systems.

Recommendation n°10 - Segmenting and sharing value added

Restoring the balance of power and elaborating adapted price formulas (with indicators relating to the French consumer goods segment in particular), could favour the segmentation and revaluation of the milk price on the basis of the mix product of specific production areas. In this sense, the double volume-double price systems elaborated by certain co-operatives could be assessed, before considering improving and extending this mechanism. The potential for long term product sales contracts (following the example of the Glanbia system or based on the tripartite agreements with GMS) to secure stable and remunerative prices for part of the volumes, also deserves to be assessed further.

Recommendation n°11 - Participation of the joint-trade organisation

The CNIEL, on the account of Article 157 of the CMO, could take part in the discussions on indicators used as price formula inputs as well as those triggering off renegotiation or safeguard clauses. It could play an active role in thinking about the content of framework contracts and updating the guide to good contractual practices. Moreover, CNIEL governance needs to be reviewed for better efficiency (PO representation, rebalancing the weight of the different colleges in favour of the interprofessional treatment of issues relating to the industry upstream, to the place consumer goods should take according to segmentation opportunities etc.).

Recommendation $n^{\circ}12$ – Modifying the implementation decrees of the LAAAF and the expiration date of the first contracts

In the very short term, regulation developments relating to the diffusion of dairy information to POs should lead to making information relating to milk collection, the quality of the milk delivered as well as the mix product of dairies by production area available. Regulation developments could be an opportunity to place POs and PO associations at the centre of the informational system. Moreover, the legal definition of a framework contract could include i) the obligation to negotiate framework contracts with territorial PO associations (for which conditions of existence must be created), ii) the payment of milk according to outlets, and iii) the right of POs to establish collective rules for accessing contractual volumes.