An analysis of different milk market models commissioned by Martin Häusling, MEP (Sept. 2010)

# Results of the study The future of the dairy market: "less is more"! & Demands for a sustainable dairy policy

#### Introduction Martin Häusling MEP, Greens/EFA

Over the last two years, thousands of dairy farmers in Europe had to give up their farming activities. A growing number of farmers are not managing to earn an income that allows them and their families to make a living and to create capital reserves so that their farms also have a future in the long term. The agricultural sector is continuing to undergo significant structural change. It is almost presented as a given, intrinsic rule by policies and business. This structural change might be a chance for the so-called 'future farms' but it is a bitter reality for those who do not want the growth. The independent farm-manager has the choice. However, in practice the acclaimed independent farm management theory seems not to be a reality for those farmers who are sandwiched between production costs and commodity prices to world market levels. Growth as a paradigm, cost reduction as the recommended correction factor - an increasingly intensive agriculture is still presented as the most competitive model of agricultural production and as something every farmer should strive for. However, this results in severe repercussions for the countryside as well as for soil and water, animal health, climate and biodiversity. In 2008, the world agricultural council (IAASTD) emphasised in its report: an agricultural policy that aims at competitiveness by "cost-cutting"

- affects nature and the environment (even if it happens to be in compliance with the law),
- destroys jobs,
- leads to intensive factory farming,
- promotes concentration, causes depopulation of the countryside,
- centralises production, processing and marketing fails to create value locally
- pushes farmers into dependency,
- · leads to uniformity in supply,
- costs a lot of money to repair the damage caused.

Given these consequences, the area of dairy farming in Europe has to be considered critical too. Producing milk in large stable units with high-yielding cattle without associated grazing area results in high emissions of greenhouse gasses, in *de facto* land grabbing in other parts of the world (due to the high demand for compound feed rich in proteins) and in the loss of biodiversity. It is also a step backwards in terms of animal health and product quality. This structural change is, however, not a given, intrinsic rule or a law of nature – it is rather a choice of policy. Policy-makers have the choice, they could either continue to support an industrialised agriculture oriented towards the world market or develop consistent designed alternatives for an agriculture which provides social services and meets the current and future challenges such as climate change, food security, biodiversity, water and soil.

The debate on the CAP after 2013 has been opened. The European Commissioner for Agriculture, Dacian Cioloş, stressed at a conference on the future of the CAP in July 2010 that the CAP must be credible. This means that the services which farmers provide for society should be fully recognised and valued. Employment, environmental protection, protection of biodiversity and landscape and animal welfare must be encouraged. He particularly emphasised that employment in rural areas and the agricultural sector as employer are vital.



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However, this is based on the assumption that agriculture has a future. When it comes to milk production, this means covering the costs of milk prices. It is therefore necessary to strengthen the market position of producers.

Apart from the formulation of fair market rules, a comprehensive, sustainability-oriented dairy policy has to focus on consumer demands as well. Today consumers inquire not only about food quality and safety, but also about processing-quality (environmental protection, animal welfare), "naturalness" (this means particularly no pesticides or GMOs) and the regional origin of products.

We also need a strategy to solve the problem of dependency on protein feed in Europe to support pasturage and a breeding strategy which is more health- and longevity- oriented (see also demands at the end of this document).

I commissioned a study entitled *The future of dairy market: "less is more".* This study contributes to the political debate on the future of the dairy market. The main questions that will be addressed in this analysis of approaches towards the milk market in different countries are:

Were the market approaches successful?
Who benefits from these systems? And
are there "best practices" that could be applied to the market in Europe?

## Main results of the study

Author: Marita Wiggerthale

Analysis of the milk market approaches USA, Canada, Switzerland and the EU Despite structural changes, the structural diversity of the dairy industry prevails. This is true for the dairy industry in the United States, Canada, the EU as well as Switzerland. It is the typical family farm which characterises the milk sector - in the U.S. this is usually a dairy farm with 100 cows and in Canada a dairy farm with fewer than 50 cows. Nevertheless, the trend is clearly towards larger business units. In the U.S the term milk factory is appropriate for dairy farms with more than 1000 cows. Even though these dairy factories make up only 2% of dairy farms, they produce 42% of the milk. It is characteristic within the EU, that 60% of dairy farms are located in disadvantaged areas. The same applies to Switzerland with a share of 44% of dairy farms are located in mountainous areas. If these farms give up, valuable cultural landscapes would be threatened, multifunctional agriculture would be endangered and public services would no longer provided automatically as a byproduct of milk production.

The description of the different dairy systems shows that all countries examined rely on some form of state intervention. **It is therefore not a question of** *"if"* **there is intervention by the state, but** *"how"* **it is done.** Whatever one may think of the milk quota, its abolition will certainly not mark the end of government interventions, as the present development in the USA shows.

The world dairy market is considered to be a volatile market. Small changes in demand or supply quickly lead to changes in the world market price. **Crisis resistance or vulnerability of the dairy industry depends very much on the design of the dairy market system.** The more the dairy market system is based on the domestic market with the possibility to adapt the production to the demand, the more resistant is it to crises and the more stable the development of milk prices. The reverse conclusion is: the more that milk production is oriented towards the world market, the more vulnerable that system is -



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because declining demand on the world market leads rapidly to surpluses which cannot be sold and pressurise milk prices.

An increasing concentration in the value chain can be observed in all four countries. It increasingly dominates the debate on the agricultural policy. The reason for this development: the more strongly the forces of the market come into play, the more producers - as the weakest link in the value chain - are exposed to the cumulative market power of these actors. It is neither in the interest of trade companies nor in the interest of dairies to pay high prices to producers. Reports of the U.S. Government Accountability Office, the European Commission and the German Cartel Office as well as the office of the Federal Service for market transparency in Switzerland show that policy-makers are aware of this problem as well. The situation in Canada is different. Even though the three largest dairies process 70% of the milk and the four largest supermarket chains control 80% of the food market, this has no negative impact on milk producers. Due to the limitation of milk volume that is produced and a fixing of target prices a fair balance of interests is ensured within the value chain. The legal framework strengthens the bargaining position of milk producers.

Not only does the volatility of producer prices affect the predictability for the producers, it is also not in the consumers' interest. The analysis shows: in not- or less-regulated markets, high world prices are passed on to consumers and low world prices to producers. But, declining producer prices do not automatically lead to low prices for consumers. This is also reflected by the total profit margin of supermarket chains and dairies. It has to be said that even in Switzerland, since the abolition of the quota, the total margin has increased significantly. The difference between the price that the producers obtain and the price that is paid by the consumer is highest in the deregulated markets of New Zealand, Australia and the USA. This trend — contrary to the statements of the European Commission - is also established in the European Union. Since 2000, the consumer price for milk has been largely decoupled from the producer price. In Canada the difference is the lowest, while consumer prices are acceptable.

Based on the available data one can see that the **USA** does not seem to be very successful when it comes to constructing a strong safety net for producers while ensuring a stable supply: over the last two years milk production has been exposed to heavy fluctuations. The income insurance programme is not well-accepted by producers. The "Corporative Working Together Program" is not as effective as desired and the milk producers are not happy with the current pricing system according to statements of the USDA. As a consequence, a paradigm shift seems to be taking place. The so-called *Dairy Price Stabilization Act*, which is based on a programme to mitigate extreme market volatility, has been developed by several dairy organisations and its effectiveness has been tested at Cornell University. It was introduced as a bill in the House and the Senate. The programme is mandatory for all milk producers. Based on a "bonus-malus" system milk production is adapted to demand. If dairy farmers grow over defined growth boundaries, they must pay for their market entry with fee of five-times the normal price. Those who comply with the defined growth boundaries are rewarded with this money. The aim is to mitigate extreme fluctuations in volume and price. The success of this scheme remains to be clarified.

Milk producers in **Canada** are largely satisfied with the current system. Criticism is aimed at the high quota costs, the inflexibility of the quota regime and the high starting barriers for young dairy farmers. Producer prices are stable and cover costs. They achieve the objective of a fair profit for the producers at acceptable prices to consumers. Consumer protection



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organisations such as the *Consumers' Association of Canada* primarily criticise the Canadian dairy Commission (CDC), who does not include the advisory board (where consumer groups are represented) in their meetings. So it cannot be guaranteed that consumer interests are taken into account.

For **Switzerland**, an objective assessment of target conformity is still not possible in view of the recently-introduced three-stage system. However, it is significant that the milk market system is not in balance. Milk producers and producer organisations are currently working under an enormous pressure on prices. If the inter-branch organisation (BOM) does not quickly bring about an amicable solution for the amount of milk on the market and producer prices, it is questionable whether the milk market system will survive in its current form at all. It seems to be inevitable to change structures of representation and the market system to ensure the future of the dairy industry.

In 2009, the European Court of Auditors examined whether the **European Union** reached the self-imposed targets with its milk market system. The results of the investigation are as follows:

- Target 1 Market balance: milk quotas compared to the capacity of the market have been too high for a long time. The current quota system is mandatory only in a few member states.
- **Target 2 Price stabilisation:** the producer price for milk has been exposed to a steady decline since 1984.
- **Target 3 Income maintenance:** the income of dairy farmers is slightly above the average of agricultural income that tends to decline at constant prices. Between 1995 and 2007, the EU-15 lost the half of its dairy farms; while a total of over 500.000 farmers gave up their activities.
- **Target 4 Competitiveness:** the EU's share of world trade is shrinking in dairy products since 1984. European producers of basic commodities (butter and milk powder) are competitive on world markets only when world market prices are high.

The report of the European Court of Auditors makes clear that the EU has not achieved its targets. The Court even warned - in the wake of liberalisation - of the "instability of the markets, which can lead quickly to surpluses". They warned also of the acceleration of structural changes which will be followed by the disappearance of a large number of dairy farmers in the most disadvantaged areas and by a geographical concentration of production. The Court recommends to adjust milk production primarily to the demand of the European market and to focus only secondarily on the production of cheese and other dairy products with high added value, which are exportable without any budgetary support to the world market.

The future holds increasing market risks for the dairy farmers: high price volatility, high feed costs, declining demand for milk, low milk prices due to increasing market concentration and structural surpluses. The market risks fall into three categories:

- **Politically induced market risks:** These market risks are associated with the promotion of the free play of market forces, international competitiveness and liberalisation of the milk market.
- **Demand-induced market risks:** These market risks are related to changes in consumption patterns. Sudden price spikes as in 2007 and economic crises as well as food scandals have at least temporarily reduced the demand.



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- **Internal market risks:** When policy withdraws from milk market design and its responsibility for "fair market" prices and for a balance of interests within the value chain, internal market risks such as low milk prices and high feed costs can accumulate.

The policy concerning the creation of a strong safety net focuses on these internal market risks. It is at this point where income insurance, as introduced in the USA. The focus is put on the "Livestock Gross Margin Program" (LMG), which has been in place since August 2008. The LGM aims to protect dairy farmers from low milk prices and high feed costs. Gross profit is calculated as the market value of milk minus feed costs. The LGM includes the prices of futures with maize, soya flour and milk to determine the expected and the actual gross profit. The prices are average prices on the Chicago Stock Exchange, not the prices received by a producer on the market. The milk producer can choose the amount of the deductible of the insurance. He gets some of the insurance compensation if the expected gross profit is higher than the actual gross profit. In 2009, a total of 45 LMG-insurance policies were sold. 145 insurance policies were sold by 14 April 2010. The acceptance of insurance has been very bad and the insurance is criticised by experts. The reasons are:

- The programme is very complex
- Milk producers are wary of futures
- The premium must be paid in advance, while the compensation is payable upon entering the insurance facts at the end of the insurance period
- Depending on the amount of the guaranteed gross margin and the prevailing market conditions, the cost of the premiums and the programme will be significant
- One of the biggest problems is the calculation of the expected and actual milk prices and feed costs
- The insurance period of 10 months is considered to be too long. But a shorter period is associated with higher administrative costs and premiums.

Milk producers in Europe have not used futures for risk minimisation yet. The introduction of a similar programme even in a more attractive design would have considerable problems being accepted. Looking at the instability of financial markets it is also questionable whether an income insurance, which is based on stock market values, would protect the milk producers effectively against increasing market risks. As the vast majority of market risks are politically induced, it is rather the question of how a suitable regulation of the dairy sector might look like.

#### **Conclusions from the study**

What is the future of milk? The search for market-compatible solutions, which ensure both an environmentally and socially sustainable dairy farming while avoiding repercussions for poor countries, requires an open discussion with all stakeholders. The EU Commission has already developed some important criteria in its 2002 report: sustainability, consistency with the objectives of the CAP and the "*European model of agriculture*", taking into account the enlargement process (hundreds of thousands of small dairy farmers in Eastern Europe). But, climate-friendly milk production, animal welfare and biodiversity are still not fully taken into account when it comes to targeting dairy market regulations. Particular attention should be given the dairy production in disadvantaged areas and in grassland regions, where nothing else can be produced apart from milk. This also concerns grazing beef cattle.

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### Demands for sustainable dairy policy Martin Häusling, MEP, Greens / EFA

#### Sensible rules for managing the market instead of aimless deregulation

- 1. **Achieving a balance between supply and demand** through consumptionoriented supply regulation by consensus between government, dairy industry and dairy farmers. This way, the influence of supermarket chains is limited even at high concentrations in the food market, as the example of Canada shows.
- 2. **Strengthening of producer associations with special trust regulations.** Size and level of bundling have to allow a market clout of producers which is equivalent to the dairy industry. Minimum price agreements should be available.
- 3. **Balance of interests amongst producers**. Different regional, local and structural operational needs must be taken into account and represented in the decision-making process.
- 4. **Multi-stakeholder approach**. A milk market design shall not be limited to fixing prices. The integration of consumer, environmental, welfare and development issues must be ensured from the start. In addition, the example of Canada shows that the participation of such groups is only meaningful with ensured voting rights.
- 5. **Price stability and target price**. The calculation of the target price should be based at least on the production costs of the producers. A comprehensive approach is desirable, which includes the view of the industry, dairies and consumer groups, as well as economic indicators such as inflation, consumer price indices, etc.
- 6. **"Adding value"** through greater promotion of even crafted quality production and product innovation in the dairy sector. The flooding of the market with "commodities" (products, which differ from each other ONLY in the price) must be reduced.
- 7. **Food labelling, which describes the quality of the process**. Today not only security and health safety are important for consumers' expectations of food quality, but increasingly even the process quality (cropping systems, environmental protection, and animal welfare). These differences in quality should be cognizable by consumers.



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#### Consistent support for a sustainable milk production across market rules

#### 1. Acreage binding of the livestock at a maximum of 2 "LSU"

For climate reasons, a threshold of livestock density per hectare is strongly recommended. Thus, an over-fertilisation and increasing emissions of greenhouse gases, including nitrous oxide, can be avoided. In combination with setting a minimum level of use of farm-grown fodder, as currently exists in organic farming rules, support would be given to livestock which is reared on regional fodder and not on factory farming dependent on protein imports.

# 2. **Support of pasturing and grassland management**Health effects

The number of udder diseases has increased six times over the last forty years and the number of claw diseases and metabolic diseases has increased threefold. About a third of the high performance animals suffer from acute and chronic inflammations. Organic livestock with a lot of grazing area are healthier in general. In addition, pastures have a positive effect on reproduction and on the composition of fatty acids in the meat. Also in terms of animal welfare, pastured livestock is preferable to stabled livestock.

#### Impact on climate and biodiversity

General calculations show that pasture is the most energy-efficient and ecological form of livestock farming - also because the CO<sub>2</sub> balance is much better compared to feeding with concentrated compound feed, which consumes lots of energy and area. Moreover extensive grazing contributes to the preservation of rural biodiversity.

#### Impact on food quality and health

Milk from cows that primarily eat forage is healthier (Omega-3 - fatty acids content). Many studies have shown the health benefits of omega-3 fatty acids in alleviating inflammation, reducing the risk for heart disease and lowering blood pressure.

#### 3. Special programmes for milk production in disadvantaged areas

57% of the surface area used for agriculture in the EU is classified as disadvantaged areas. Dairy farms in particular ensure the preservation of ecologically valuable landscapes or coastal protection in these areas. In these regions, milk production is often the only possible agricultural income. Valuable cultural landscapes that are abandoned lie fallow, and in time the affected areas will be lost for food production, which makes no sense in terms of food security.

#### 4. Promoting high self-sufficiency of the EU with protein feed

Currently 36% of the world grain harvest is fed to animals; 70% of soy harvests worldwide is consumed by animals. A calorie of beef consumes the equivalent of 10 calories of grain; for pork the ratio is 1:3, for eggs it is 1:4 and for milk it is 1:5. The losses in dietary protein are of the same order, and in beef the losses are even 17-fold. The annual import of 50 million tonnes of feed in the EU would be enough to ensure an adequate diet for 600 million hungry people outside Europe.



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For ethical reasons and even with regard to climate protection, the use of farmland in developing countries for our meat-rich diet has to be reduced. The cultivation of legumes within the EU should be supported so as to ensure a much more sustainable food production for EU livestock, accompanied by a stocking density limit. Soybean feed can be effectively replaced depending on the crop species and the type of farming by a combination of native protein crops and improved pasture management. In addition, soy should wherever possible be replaced to prevent the import of GMO animal feed. As legumes fix atmospheric nitrogen in their roots, on-farm soil fertilising would take place, thus reducing the large scale fuel consumption needed to produce synthetic fertilisers. As well as the large energy saving potential, this implies an improved humus content, better soil structure, higher nutrient and water exchange capacity as well as higher biodiversity in the agricultural system.

5. Breeding focused on longevity and health instead of high performance For many years breeding has focused unilaterally on high performance. This leads to numerous problems, for example reduced fertility, increased disease occurrence and morbidity and a short lifetime and so lead ultimately to economic losses. In this method of animal breeding, another threat comes from concentrating on a few top sire animals and therefore progeny which are very closely related. With this strategy, in the short-term breed improvement can be achieved, but in the long term there is a risk from inbreeding, and so a possible decrease of vitality, fertility and performance. In sustainable systems of animal production, which are characterised by predominantly home-grown fodder and which respect animal welfare standards, other requirements for the genotypes of the animals have to be met. Thus other specific breeding objectives can be derived: reliable life performance as opposed to short-term maximum power, high forage intake and good feed conversion, multiple use, robustness, vitality, social behaviour and adaptation to changing environmental conditions, e.g. food availability or weather conditions. There has to be more focus on these objectives in research and breeding.