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Abolition of the Milk Quota System in Switzerland

Assessment of the quota abolition and its impact in consideration of accompanying measures

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Study commissioned by the European Milk Board

Zollikofen, 10th April 2014

The author thanks Dr. Albert Rösti for his support, especially for the compilation of information for the overview of political debates and developments in this sector. Many thanks also to Pia Fehle and Dr. Bruno Durgiai for their valuable advice and suggestions of improvement for this study.

Abstract

As part of the liberalisation process in the Swiss dairy market, the decision was taken in 2003 to abolish the milk quota system with effect as of 1st May 2009. During the three years prior to the abolition, milk producer organisations and organisations representing both milk producers and processors could be granted an increase in volumes if they could prove that there was a corresponding demand from the processing industry. During this transition period, prices rose on the international market (2007/08), which lead to an additional increase of milk supply. Given that at the moment of the actual abolition of quotas prices were falling again, milk producer representatives tried to put into practice a regulation system under private law. Such a system had been recognised as an adequate follow-up arrangement in political debates on the abolition of milk quotas. However, a few years later, it was not possible to put into practice binding measures, neither on a sectoral nor on a political level. In the political debate, the prevailing opinion was in favour of liberalisation, with reference to the sector's own responsibility. Within the sector, no agreement could be found on measures for supply management, due to different interests both within the value chain and among producers. Due to their size, processors are anyway in a better position than producers. Even five years after the abolition of milk quotas, producers are still lacking stable market conditions.

The expected gain of the abolition of a quota system is an increase in competitiveness. The consequence of a quota system is that many farms are not able to fully use their production capacity. When quotas are abolished, they increase their production, enabling them to reduce the cost per produced unit. Nonetheless, as the overall supply increases, there is a drop in farm-gate prices. How much prices drop depends on the elasticity of supply. In the case of the dairy market the question is to which extend the processing industry's sales potential increases due to the availability of cheaper raw material.

In Switzerland, the predicted volumes of additionally produced and processed milk were much higher than the additional volumes actually produced after the quota abolition (relative to drop in prices). Consequently, the demand for raw milk was less elastic and the development of the processing sector less positive than expected. This can be partially explained by a persistent crisis in Emmentaler cheese sales on export markets and by the appreciation of the Swiss franc. Concerning value creation, it had a negative impact that the growth of the processing sector was largely based on generic products like butter and milk powder, i.e. products for which competition is primarily based on price and barely on quality. Overall, expectations concerning an increased competitiveness of the Swiss dairy sector were only partially met, despite an increase in productivity.

In 2015, quotas will be abolished in the European Union. As in Switzerland, dairy farmers in the EU are confronted with the processors' market power. In addition, there are signs for overcapacities in the processing sector, which could result in an increased pressure on producer prices. The experience in Switzerland has shown that it is a big challenge to achieve an agreement among milk producers on measures to be taken. For this purpose, strong partnerships in the value chain are necessary.

It is important to counter the different risks of a quota abolition, which do not only affect producers: alongside competition for cheap production one should not forget about quality. The disappearance of milk production from entire regions also puts at risk those regions' multifunctional services. In some cases, higher costs are also associated to values which are expected by society.

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Glossary

Federal Council	Swiss government, a college of 7 members where according to a rotating system, one member is elected President of the Swiss Confederation for a term of one year
Motion	Parliamentary initiative that presents the Federal Council with a binding mandate
National Council	Larger chamber of Swiss Parliament with 200 members who represent the Swiss people
Council of States	Smaller chamber of Swiss Parliament with 46 members who represent the cantons

Acronyms

BOM, BO-Milch	Sectoral Organisation-Milk
ETH	Swiss Federal Institute of Technology Zurich
EU	European Union
GATT	General Agreement on Tariffs and Trade
IAW	Institute for Agriculture (former Institute at the ETH Zurich)
LwG	Agriculture Act
PMO	Producers' and Milk Processors' Organisation
PO	Producers' Organisation
SMP	Swiss Milk Producers
VAMK	Ordinance on the Abolishment of the Milk Quota System
VSM	Swiss Milk Association
WAK	(parliamentary) Committee for Economic Affairs and Taxation
WTO	World Trade Organization

1. Introduction and methodology

The present report deals with the abolition of the milk quota system in Switzerland. A special focus is placed on the accompanying measures for the transitional period and for the new market situation, which have been discussed on a political level and within the sector (producers, processors and retail). The impact on the development of supply and of milk prices is also analysed.

The report is composed of five chapters. The 2nd chapter describes the starting situation of the Swiss dairy sector shortly after the year 2000. Chapter 3 lays out the political decisions concerning the quota abolition as well as the accompanying measures planned by the government. A description is also made of the political debate related to these decisions, over the period between 2002 and 2013. Chapter 4 offers an overview of the dairy sector's actions in the same period of time. Chapter 5 presents an analysis of market trends during and after the abolition of milk quotas, with a special focus on the question whether the accompanying measures were able to influence the market situation. The last section, chapter 6, is based on the findings and analyses of the previous chapters and includes general conclusions and possible lessons for the abolition of a milk quota system.

A for the methodology used, the present report draws upon the analysis of political decisions, on the basis of publicly available minutes and reports of parliamentary debates and of pubic administration. The information on accompanying measures taken by the sector is based on press releases and public reports of the sectoral organisation Branchenorganisation Milch (BOM) and of the umbrella organisation of Swiss milk producers Schweizer Milchproduzenten (SMP). The impact assessment of the measures refers to the real development in supply and prices on the Swiss dairy market, over the period shortly before, during and after the quota abolition. This analysis is based on agro-economic principles, which are illustrated in graphics. The assessment of intervention measures is laid out in relation to both their impact on single farms (cost structure) and on the sector as a whole (equilibrium models, supply and demand curves).

2. Regulation and structure of the dairy market before the abolition of the quota system

2.1. Regulation of the dairy sector and liberalisation steps taken before the year 2000

Throughout the 1990's, the Swiss agricultural policy underwent fundamental reforms. Since after the post-war period, it had been based mostly on public price and volume guarantee schemes. Following Switzerland's engagements towards the WTO after the conclusion of the GATT Uruguay Round, the country had to undertake some changes. As a consequence, product-related measures had to be substituted for product-neutral support schemes matching the so-called "Green Box" subsidies, i.e. direct payments. The WTO engagements also included the commitment to a progressive liberalisation of the milk market. In May 1999, as part of the agricultural policy 2002, a new organisation of the milk market came into force. The price and volume guarantees were abolished and price-support measures progressively abandoned. The existence of semi-public institutions of the dairy sector (Schweizerische Käseunion and BUTYRA) was no longer justified; those institutions were thus dissolved. But for the time being, the milk quota system introduced in 1977 was maintained.

The system of the milk market organisation of 1999 was thus based on three main elements (Koch 2002, S. 107f):

1. Restrictions of supply on a national level by means of a milk quota system, in combination with border protection measures;
2. Support measures for cheese sales by means of a general support scheme for raw material prices (subsidies for milk processed into cheese, subsidies for silage-free feeding), and
3. Price support for butter and other milk products (subsidies).

The aim of these policies was to increase the competitiveness of Swiss milk production and to ensure a certain level of milk and milk products sales both inside and outside the country (ebenda).

2.2. Structure of the Swiss dairy market

Broadly speaking, the dairy supply chain can be described as a sequence of the following levels: milk production, milk collection, milk processing, at the most another level of milk processing, retail and end consumer. It is to be noted that the number of actors or enterprises upstream (producers) and downstream (consumers) is significantly larger than in the levels in between. For instance, in Switzerland, the food retail sector is dominated by two large companies (Coop and Migros), which in 2003 already represented 72.6% of the market (Bogner 2006).

In the processing sector a distinction needs to be made between cheese production and the remaining milk processing business. Even at production level, a distinction is made between milk sold to cheese dairies and milk sold to other dairies. The first one includes milk produced without silage, which is suitable for the production of raw milk cheese. Since 1999, a subsidy ("Verkäsungszulage") is paid for milk processed into cheese (including industrial cheese). Whereas in cheese production the farm cheese model still plays an important role, the remaining dairy sector is far more industrialised.

Already before the step towards a liberalisation of the market discussed in the present study, milk supply was higher than domestic demand. In 2001, around 20% of produced

milk was processed into products for export: besides cheese – the main export product, above all milk powder or milk as chocolate ingredient (cf. TSM, SMP & SBV 2004, p.50).

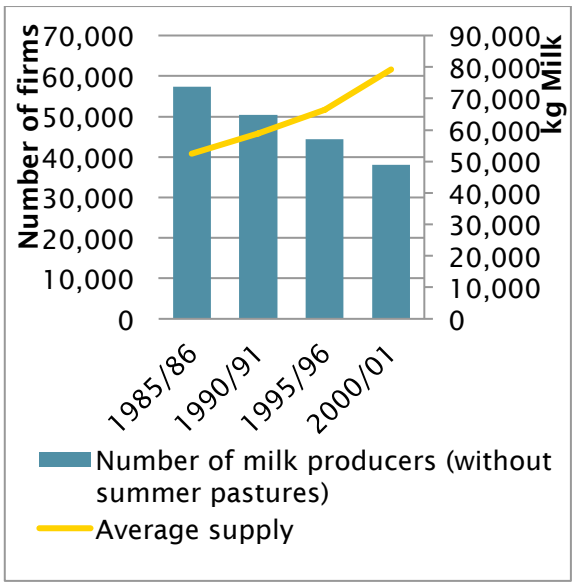

Figure 1: Structure of milk production in Switzerland before the abolition of quotas

(Source: TSM (2013)

Around the turn of the millennium, big structural changes were taking place in the milk sector. In 2000, the average milk price was around 79 Swiss centimes per kg (Marktberichte BLW). A few years earlier, the price had still been above one Swiss franc. As a consequence, the financial situation on many farms became even worse. The number of dairy farms dropped; the remaining farms were able to expand their production. As from 1999, it had become possible to rent out and sell quotas. In the milk year 2000/01, 38‘082 farms with a quota of 79‘181 kg milk on average (TSM 2013) were still producing milk. In total, about 3.2 million tons of milk were produced in the year 2000.

The processing sector also underwent a concentration process. In the early 2000s, the largest processor on the Swiss market was Swiss Dairy Food, with a milk volume of around 600 million kg per year (Flury, Sorg & Giuliani 2014). This company was the result of the merger of several processors a few years earlier. As from the beginning, the company had been fighting high levels of debt and significant overcapacity. In 2002 a debt-restructuring moratorium was granted, during which some of its plants were sold to other large processing companies, while others were shut down. In 2003, the four largest processors left on the Swiss market were processing a total milk volume of 1.4 million tons, i.e. 44% of overall supply (Flury et al. 2014). Cheese production was mainly taking place in farm cheese dairies, which underwent fundamental structural changes. In 2000, around 1‘000 cheese dairies – with continuously declining numbers – were processing 42% of total milk production (1.3 million kg of milk per year on average).

In the years 200/02, the sector cheese and curd cheese represented, with 43%, the biggest share of overall milk processing, measured in terms of ingredients[1] (see figure 2).

[1] For the calculation in milk equivalent, only the ingredients "protein" and "fat" are taken into account (TSM 2013); one kilo of milk corresponds to one milk equivalent (protein content = 0.45 equivalent and fat content = 0.55 equivalent).

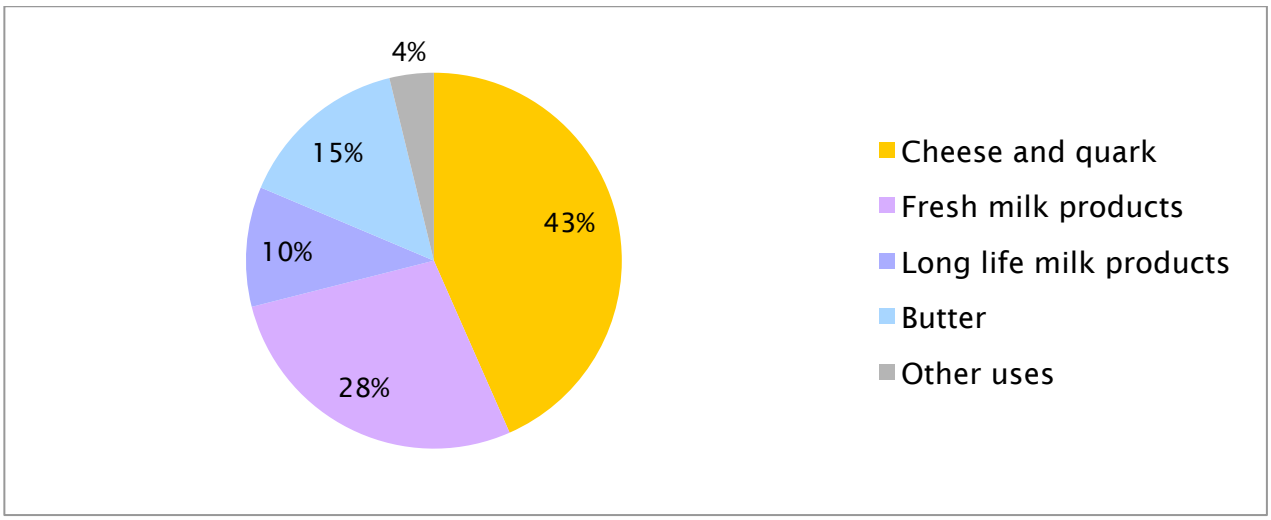

Figure 2: Processed milk (milk equivalent) in the years 2000-02

(Source: TSM 2011)

3. Political decisions concerning the abolition of milk quotas

After the liberalisation measures taken in the 1990s, the next main step in the Swiss agricultural policy was the abolition of the existing milk quota system. The according proposal was submitted to the Parliament in 2002, as part of the reform package "Agricultural Policy 2007". Some important elements of the related debate are laid out in chapter 3.1. Following a drastic deterioration of the situation on the milk market in spring 2002, the Swiss Federal Council[2] brought forward an urgent request (2002c) to the Parliament, by means of a supplementary message. It this document, the Federal Council requested a green light for proceeding to volume adjustments – differentiated according to their use – already before the actual quota abolition. These measures were meant to serve as a short-term alleviation of the difficult market situation at the time and regarded the period before the actual abolition of the quota system. Those measures will not be further analysed in the present study.

On 20th June 2003, the Swiss Parliament decided that the country would put a definite end to its quota system with effect as of 1st May 2009, i.e. two years later than the Federal Council's original intention. At the same time, the decision was taken that an early exit of the system would be possible under certain conditions. An analysis of the abolition concept is provided in chapter 3.2.

Nevertheless, the time frame of the above-mentioned early exit of the quota system coincided with an extraordinary favourable situation on the international milk market in the years 2006/07 (cf. chapter 5.2.1). The expected strong rise in production was further increased by high world market prices and the concomitant low pressure on prices.

But the definitive abolition of milk quotas in Switzerland only took place after the situation on the world market had "returned to normal", i.e. after prices had again collapsed. As elsewhere, this resulted in high pressure on producer prices in Switzerland - a situation that was even worsened by the previous extension of production. On a political level, this situation lead to several parliamentary initiatives concerning the government's dairy policy as well as to the resumption of a large political debate on the abolition of the milk quota system. During parliamentary negotiations on the agricultural policy 2014-2017, definitive resolutions were taken on the matter. Those are dealt with in chapter Debate on the implementation of

[2] Explanations of public institutions in Switzerland are provided in the glossary.

a supply management . Chapter 3.4 presents a summary of possible lessons learned from the political debates.

3.1. Decision of principle on the abolition of milk quotas

The basis of the parliamentary debate in 2002 was the **decision of principle** ("Grundsatzentscheid") on the abolition of the milk quota system, as part of the Federal Council Dispatch[3] on the further development of the agricultural policy (see annex 1, Bundesrat 2002a, p. 4727): *"The central element consists in a further increase in flexibility of the organisation of the milk market.* [...] *In this context, the Federal Council presents, among others, a concept for a progressive abolition of the milk quota system."* [4]

This dispatch contains several objectives and options for the implementation of the abolition. On the grounds of a previous consultation on the abolition of milk quotas, the Federal Council's Advisory Committee[5] referred for instance to the possibility of delegating the authority of regulating the milk price and milk volumes to the Federal Council (Bundesrat 2002a, p. 4747):

"In order for the dairy sector to be able to maintain its market shares in a situation of open borders, it would be necessary to further pursue the flexibilisation process in the organisation of the milk market. For this purpose, the authority for the control of a target price and of milk quotas should be delegated to the Federal Council ("can" wording). The concept for a possible abolition of the milk quota system would previously have to be further studied and undesired developments related to quota transfers (high costs) to be corrected." [6]

The main focus of interest was thus an **increase of competitiveness** in relation to the foreign trade situation as well as the **correction of undesirable developments** related to quota trading (cf. chapter 2.2). However, in the meantime, it did not seem possible anymore to win a majority in favour of granting the Federal Council a large competence on milk supply management. This becomes apparent in the Federal Council's statement on the consultation (Bundesrat 2002a, p. 4749*)*:

"The proposal put up for discussion to delegate the power of abolishing the milk quota system to the Federal Council is rejected by a large majority [in the consultation]. *The Federal Council takes into account the main criticism by presenting a clear concept for a progressive abolition of the milk quota system, while leaving the decision on the according timeframe to the legislator."*[7]

At the same time, the Federal Council pointed out to the Parliament the necessity of taking decisions in agricultural policy **independently from developments outside the country** (ebenda): *"However, on a statutory level, with regard to basic orientations and to the Swiss agricultural policy's own objectives, it should be avoided to link the abolition of milk quotas to a corresponding decision at EU level."*[8]

Significant importance was also attached to an early determination and **communication of the future framework**. According to the Federal Council, *"setting a clear course helps to*

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[3] Report of the Federal Council with recommendations for parliamentary action
[4] Translation of official quote. For the German original, please refer to Haller 2014, p. 15.
[5] For the application and further development of the Agricultural Act, there is a standing "Advisory Committee" with up to 15 members in the Federal Council (Art. 186 LwG).
[6] Translation of official quote. For the German original, please refer to Haller 2014, p. 15.
[7] Translation of official quote. For the German original, please refer to Haller 2014, p. 16.
[8] Translation of official quote. For the German original, please refer to Haller 2014, p. 16.

reduce institutional uncertainties and is in the interest of agricultural holdings."[9] (Bundesrat 2002a, p. 4749)

The **interest of agricultural holdings** is also set as a priority in the reasoning of the necessity of an abolition of quotas. The Federal Council's arguments put forward in the light of the planned abolition of quotas in the EU were as follows (Bundesrat 2002a, p. 4794): *"To continue to impose tight constraints to domestic milk production, while competitors in other countries produce without hindrance, cannot be a vision for the Swiss dairy sector. At the latest at the moment when quotas are abolished in the EU, Swiss dairy farmers should be able to seize the same chances and increase their production, as their colleagues in the EU. The grounds for this have to be laid by all means."*[10]

Next to this argument, in reflexions on the quota abolition, the Federal Council put forward reasons in favour of the abolition independently of the EU. Essentially, those included an increased demand in milk products on an international level, missing price competitiveness and the high costs of the quota-trading scheme. Nonetheless, the Federal Council also was aware of the risks associated with such a liberalisation measure (Bundesrat 2002a, p. 4798):

"Abolishing the milk quota system and leaving production to the free game of supply and demand has considerable economical, structural and social consequences. The abolition of milk quotas thus needs to be prepared in close collaboration with the sector. Agreements concerning supply management, market support as well as regional, structural, ecological and ethological aspects are therefore of primary importance: [...]" [11]

It is probably not a coincidence that **supply management** is mentioned first. As the objective laid out in the following dispatch (Bundesrat 2002a, p. 4800) shows, it was important to the Federal Council that the situation on the market was stable for the implementation:

"The objective of this process has to be that at the end of a transition period the milk quota system can be abolished, without that this would lead to undesired reactions on the dairy market, with important fluctuations in price and volumes." [12]

The Federal Council was aware that the above mentioned transition period would have to take place within a **process of several years**, in order for the abolition to be sustainable from a social and from a structural point of view (Bundesrat 2002a, p. 4800). The Federal Council thereby referred to the market balance in the absence of a quota system, which could be expected according to several scientific studies[13]. According to the results of these studies, there would be an increase of milk volumes, combined with a drop in prices to a level of 62-65 Swiss centimes per kilogramme of milk. The date of the abolition of milk quotas as suggested by the Federal Council (30th April 2007) would have left four years for necessary adjustments (for the abolition concept cf. chapter 3.2).

Finally, the decision of principle on the quota abolition was supported by a majority in both chambers of the Swiss Parliament, i.e. the Council of States and the National Council. The grounds on which this decision was based were the ones already laid out in the Federal Council dispatch (annex 2, Curia vista 2002). The Committee's spokesperson, Fritz Schiesser, named the following points is this regard, the last point of which being of special importance from a producer's perspective (Curia vista 2002, p. 1223):

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[9] Translation of official quote. For the German original, please refer to Haller 2014, p. 16.
[10] Translation of official quote. For the German original, please refer to Haller 2014, p. 16.
[11] Translation of official quote. For the German original, please refer to Haller 2014, p. 16-17.
[12] Translation of official quote. For the German original, please refer to Haller 2014, p. 17.
[13] This refers to studies of the Institut für Agrarwirtschaft (IAW) of the ETH Zurich, which are further analysed in chapter 5.1 of the present document.

1) Increased competitiveness
2) A considerable global growth potential
3) A drop in prices which would anyway occur following the phasing-out of support measures
4) The high cost of the quota system
5) The pressure from the EU when quotas are abolished there
6) The fact that after the abolition, supply management could be implemented under private law.

Due to the fact that the abolition of quotas foreseen in the EU was postponed from 2008 to 2013, the Parliament also wanted to give milk producers more time to adapt and decided to postpone the abolition date for milk quotas by two years (to 30th April 2009). In the Council of States, the decision was approved with 22 votes, against 15 votes of a minority in favour of converting the quotas in delivery rights. In the National Council, the decision was reached with quite clear majorities of 95 against 65 and 138 against 21 votes, respectively, against several minorities in favour of either keeping the quota system in place or postponing the definitive decision (Curia vista 2003, p.391).

At the time, none of the parties denied that the abolition concept would need to go along with **accompanying measures** and that after the abolition a **private law supply management system** would be necessary. This appears in the following excerpts of the negotiations' minutes. Concerning supply regulation, Federal Councillor Fritz Schiesser stated (Curia vista 2002, p. 1223): *"After the abolition of the milk quota system, milk producers will have to implement a private law supply management system. We already prepared this with the urgent federal law. It is absolutely necessary that producers and processors do not only find an agreement on price, but also on volumes to be produced."* [14]

The Federal Councillor in charge, Pascal Couchepin[15], reaffirmed the idea of a private law supply management system (Curia vista 2002 S. 1230f): *"*[...], *the quota system will be maintained, but quotas will be managed by industry organisations; they will not be managed by the Swiss Confederation* [...]. *I hope that before you vote you will take that last step, i.e. the step towards liberalisation without abolishing the quota system, but with, instead, a simple transfer to industry organisations and to a private level."* [16]

In the following spring session, his successor, Federal Councillor Joseph Deiss[17], stuck to this position (Curia vista 2003, S. 368): *"The objective is thus to give the responsibility for supply management back to market players,* [...]*. I am sure you will agree that this step is not an easy one and that it has to be prepared and implemented in a thoughtful and organised way."* Later he also said during the discussion (ebenda, p. 390): *"At first there is the question of supply management. When we speak of "private management", we do not refer to a "jungle"-like situation. Things need to be organised, but essentially it will depend on the will and the ideas of industry organisations to set the necessary elements for this management."* [18]

[14] Translation of official quote. For the German original, please refer to Haller 2014, p. 18.
[15] From 1998 to 2002, Federal Councillor Pascal Couchepin was Head of the Federal Department of Economic Affairs and thus the member of the government in charge of agriculture.
[16] Translation of official quote. For the French original, please refer to Haller 2014, p. 18, footnote 6.
[17] Federal Councillor Joseph Deiss was Head of the Swiss Federal Department of Economic Affairs and was thus the person in charge of agriculture from 2003 to 2006.
[18] Translation of official quote. For the French original, please refer to Haller 2014, p. 18, footnote 8.

Summary of the decision of principle on the abolition of the quota system:

- The main objective of the quota abolition was to increase the competitiveness of milk production through higher entrepreneurial freedom.
- This seemed necessary in the light of in any case falling producer prices due to the overall liberalisation process already started beforehand.
- Concerning the market situation after the quota abolition, a private law supply management system carried out by the dairy sector itself was outlined in the debate.
- It was further foreseen that a multiannual transitional period should secure the social and structural compatibility of this liberalisation step.

3.2. Concept of the quota abolition

According to the above mentioned Federal Council Dispatch, the quota abolition should be implemented gradually (Bundesrat 2002a, p. 4804): *"The objective and purpose of such an gradual process is, on one hand, to enable a smooth transition towards a situation without state-organised regulation and, on the other hand, to give certain producer groups a head start in order for them to be able to adapt to the new situation before the others."*[19]

The Parliament followed this intention, but did not, as the Federal Council initially intended (cf. annex 3, Bundesrat 2002b), prematurely release organic producers and producers from mountain areas and mountain regions with summer grazing from the quota system.

With the amendment of the agriculture act ("Landwirtschaftsgestz") of 20th June 2003 (annex 4, Bundesversammlung 2003)[20] and parallel to the decision of principle on the quota abolition (Art. 36a, § 1), the Parliament decided on the following:

- **Article 8a of the agriculture act** allows for **target prices to be published** by organisations of producers of individual products or product groups or the according sectors, on a national or regional level. Nonetheless, individual holdings cannot be obliged to respect those target prices.
- **Article 9 of the agriculture act** states that concerning self-help measures under private law, it should be avoided that individual companies would step out of line. *"In the event that individual companies which do not take part in measures decided collectively would or could compromise the self-help measures referred to in article 8 § 1, the Federal Council can issue temporary provisions if* [...]"[21] (Bundesversammlung 2003, p. 4217). This means that the Federal Council can decide to make, for example, measures to adapt supply to demand **generally binding**. However, the corresponding possibilities were defined more in detail in the following reform step (Bundesrat 2006b, p. 6456): "[...] *the Federal Council can only take measures in the event of short-term market disturbances which are not connected to structural problems. Temporary measures aimed at specific product segments, for instance in the event of a market collapse, should be possible. For the financing of self-help measures aimed at preventing crises, for instance insurance schemes, a prolongation can be envisaged. The setting-up of a lasting market support, intervention or regulation system cannot be the purpose of a Federal Council measure, as this could revoke recent reforms. Although it might appear obvious, it should thus be noted that the Federal Council may not adopt such measures if the Parliament has previously decided on their abolition."*[22]
- With **Article 36a**, § 2 (Bundesversammlung 2003), the Parliament allowed for an **early exit**, at the earliest on 1st May 2006. This concerned producers of an organisation or an important regional dairy processor, provided that
    - the organisation has decided to put in place a supply management system on the producer level,
    - there are sanctions for excess quantities, and
    - it is guaranteed that the increase of milk volumes produced is not higher than the increase of volumes needed for the production of products.

[19] Translation of official quote. For the German original, please refer to Haller 2014, p. 20.
[20] Cf. following revision of the concerned article with the framework of the Agricultural Policy 2011 (Annex 5, Federal Assembly 2007).
[21] Translation of official quote. For the German original, please refer to Haller 2014, p. 20.
[22] Translation of official quote. For the German original, please refer to Haller 2014, p. 20.

The **regulation on the abolition of the milk quota system** ("Verordnung über den Ausstieg aus der Milchkontingentierung", VAMK) laid down according details. According to the regulation, producer organisations (PO) whose members selling at east 50 million kilos of milk per milk year as well as producer-processor-organisations (PPO) processing at least 20 million kilos of milk per year could benefit from an early exit of the quota system if they could prove that a volume increase was necessary (annex 4a, VAMK, art. 4 and 5; Bundesrat 2004).

- At last, **article 36b** stipulated obligatory contracts of a duration of at least one year. The details of this article were also laid down in the agricultural policy 2011 (Bundesrat 2006b, p. 6458): *"The aim of the proposed prolongation is, on one hand, to enable the pooling of milk supply and, on the other hand, to **avoid intermediary trade with milk by individuals**.* [highlighted by the authors] *For this purpose, members of a producer organisation should also be allowed to sell their milk to their own organisation. Without this additional provision, the producer organisation would only be allowed to carry out the supply regulation laid out in article 36a. The pooling of milk supply to increase its negotiating power in sale negotiations would thus not be allowed. This provision also foresees that producers are allowed to sell their milk not only to a regional, but also to a local processor, even after their exit of the quota system. This is especially important for producers who sell their milk to cheese dairies. The close relationship existing between cheese processors and producers in such cases will thus not be interrupted. Along with the requirement concerning the contract period of minimum one year (§ 2), this limits the actual trade with milk or the emergence of a spot market."*[23]

Summary of the details of the abolition concept:

- The aim of the option of an early exit as from 1st May 2006 (i.e. three years before the actual abolition of the system) was to allow the sector to prepare for the new market situation.
- The conditions for the granting of an early exit was the creation of producer organisations with a yearly milk volume of minimum 50 million kilos of milk or producer-processor-organisations with minimum 20 million kilos of milk, who would regulate milk volumes among their members.
- Another requirement was that those organisations had to be able to prove that an increase of volumes was necessary.
- Additionally, organisations had to prove that there was a need for these additional volumes (Art. 4 and 5 VAMK).
- No particular transitional measures were granted to producers from mountain regions and for organic producers, although this was foreseen by the government's proposal.
- Producer organisations received the right to issue target prices, but without the possibility for them to be binding.
- The conclusion of supply agreements of a period of minimum one year was made compulsory.
- The government was granted the right to make self-help measures of the sector legally binding in case of short-term market distortions – but not in the event of structural problems in the market.

[23] Translation of official quote. For the German original, please refer to Haller 2014, p. 21.

3.3. Debate on the implementation of a supply management system under private law

The transitional period of the early phasing out (cf. concept in chapter 3.2) coincided with a general price increase on global milk markets, along with a strong price increase on the national market (chapter 5.2.1). This reduced the pressure on the sector and on the government to establish a functioning milk supply management under private law to follow-up the old system. No consensus was found in the sector (see chapter 4.1). Also in the Parliament, several motions[24] aiming at improving the situation on the milk market were introduced. But after the price increases taking place until 2008, those were not successful at first and were rejected by the Parliament or withdrawn before the vote. This was for example the case for Kunz's (Curia vista 2008) and Aebi's (annex 6; Curia vista 2009) motions. After further price drops on the milk market, along with a further increase in volumes after the definitive quota abolition as of 1st May 2009, National Councillor Andreas Aebi put forward a new motion during the summer session 2010 (annex 7; Curia vista 2010a):

"Based on the Swiss agriculture law, the Federal Council is charged to grant Swiss milk producers, represented by their umbrella organisation SMP, upon request, the possibility to make their supply regulation model generally applicable, according to the following principles:

The basic milk volume is defined according to delivery rights of the milk year 2008/09, without additional volumes, for each trading organisation (PO, PPO) or for each processing company in case of direct suppliers.

Based on annual volume planning, the Schweizer Milchproduzenten [Swiss milk producer organisation SMP] *can impose on the PO/PPO or processing companies a levy of up to 30 Swiss centimes per kilo of milk on additional milk volumes if the increase in production is larger than the rise in demand with a high level of added value. The income from this levy is used for market clearance, carried out by the BO Milch* [sector organisation of the milk sector] *(level 3)."*[25]

The debates following **Aebi's motion** is emblematic for the discussions within the dairy sector during and after the quota abolition. The motion put forward in the National Council was signed by 126 National Councillors from a total of 200. This shows that the difficulties related to the quota abolition were one of the Parliaments' major concerns. Also the motion for urgent consideration was – and this only happens in rare occasions – accepted with 124 votes against 44 (annex 8; Curia vista 2010a). In the following debate, National Councillor Aebi explained the reasons for his initiative and described the situation of dairy farmers at the time (Curia vista 2010b, p. 1038):

"With the abolition of milk quotas, the situation of Swiss agriculture became critical. The sector organisation Branchenorganisation Molkereimilch, composed of milk producers, traders and processors, still has not managed – after months of negotiations – to find a minimum consensus concerning supply management and surplus quantities of milk. Following an initiative of the big dairies, which want to use their capacity to the full, 200 million kilos of milk, i.e. 5 per cent, were produced too much in the last months. But this milk is above all stored in the shape of thousands of tons of apparently unmarketable butter. These surplus quantities push farmers and their families in a ruinous price war. According to the Eidgenössischen Forschungsanstalt für Agrarwirtschaft und Landtechnik, in the Canton of Thurgau, with best growing conditions, only one farm out of three can produce milk whilst covering

[24] Binding mandate on the Federal Council, cf. Glossary

[25] Translation of official quote. For the German original, please refer to Haller 2014, p. 22-23.

their cost of production. Due to the price fall, the hourly rate fell by 15 to 20 per cent in one year, to reach 10 Swiss francs. [...] *But it is a problem to speak of a new milk quota system. Because this motion will not hamper innovation. But milk production should also be possible in all regions of Switzerland with more difficult conditions of production.* [...] *Due to the uncontrolled increase of quantities and the ruinous price war, many peasant families, both in mountain regions and in valleys, have to face economic hardship, whether their farm is innovative or not."*[26]

The declarations of the Federal Councillor in charge, Doris Leuthard[27], also make clear how strong the political discord and how difficult the situation was on the market one year after the definitive abolition of quotas (Curia vista 2010b, p. 1038f): *"About one year ago, I was standing at this exact spot. Approximately one year ago, in spring, there was a food crisis. As a consequence of this crisis, there was a sharp drop in demand, and there were some speculative investments in agricultural commodities. At that time, the market was already characterised by a strong volatility, and in Europe milk prices were falling. In other words, all around the world prices were dropping, even more than in Switzerland. At the time you asked me to take action: you said you needed a solution for the sector and that, given the crisis, the Federal Council had to increase resources and, as a second step, make the solution generally binding; and that then we would have a solution and the problems would be under control. I did all that. Due to the crisis, I allocated funds to support the milk price, which the Parliament approved. We also proposed a declaration of general applicability – also in agreement with the sector and the organisations. In the year 2010, not less, but even more milk was produced, although one year before everyone agreed that milk production had to be channelled, as otherwise prices would drop even further. Producers thus did not manage. They did not find a solution. Contrary to all promises, more milk was produced."* [28]

The Federal Councillor referred to the failure of the dairy sector and to its apparent incapacity to take on the necessary responsibility, to the dairy farmers' cost (Curia vista 2010b p. 1039): *"I indeed somewhat lost my faith in the sector. For the last two years, I only hear promises and proposals for measures. But what is happening on the market, what concerns farmers and their families, is out of control. The problem lies within the sector. It is not the problem of the government or public administration, but it is the sector itself that does not control the situation, i.e. the transition into the new system.* [...] *There are quarrels within the sector; agreements are nor respected, money is not paid. It is thus not surprising that the consequences have to be borne by the farmers themselves and that the ones to suffer are again families, who try to somehow carry on."*[29]

Meanwhile it became clear through her statements that the Federal Council was not willing to declare as generally binding a regulation on milk volumes conceived by Swiss milk producers – which was claimed in the motion (ebenda): *"The Federal Council rejects the present motion for political, economical and material reasons. The model of the dairy farmer association Schweizer Milchproduzenten – which had served as a basis to Aebi's motion – is absolutely contrary to the concept of self-help measures of an industry organisation. In an industry organisation, only common interests of the whole of the value chain can be in the centre of all efforts. If now we only focus on the interests of producers, things are never going to work out.* [...] *Articles 8 and 9 of the agriculture law only allow for an extension of self-help*

[26] Translation of official quote. For the German original, please refer to Haller 2014, p. 23.
[27] From 2006 to 2010, Doris Leuthard was Head of the Swiss Federal Department of Economic Affairs and was thus the member of governement responsible for agriculture.
[28] Translation of official quote. For the German original, please refer to Haller 2014, p. 24.
[29] Translation of official quote. For the German original, please refer to Haller 2014, p. 24.

measures in the event of an extraordinary market situation that is not due to structural problems. This is also diametrically opposed to the motion's purpose." [30]

In that respect, the indication that the problems on the market were due to structural issues and not to an extraordinary market situation was correct, as after the global price increase, the situation had returned to normal. Regulating measures limiting the increase of volumes would however been justified during the extraordinary situation in 2007/2008. But neither the sector nor the administration had anticipated the short duration of the price increase.

In the Federal Councillor's opinion, the numerous supporters of the motion were acting in a inconsistent way and seemed to be too easily influenced (ebenda): *"I can deduct from your behaviour that the strong attempts to make pressure, all the letters that you received appear to have reached their objective. I must say that this makes me a little bit sad. I heard from many of you that you agreed with the Federal Council concerning the fact that on principle a private law regulation – and this is what we are talking about here – would be wrong; but that you received letters from people in your regions, from organisations. This is sad."*[31]

Whether the Councillors were aware that the Federal Council's view concerning a supply management under private law had also evolved considerably between 2002/03 and 2010 (cf. page 12 of this report) is not known. Nonetheless, the Federal Council managed to convince a majority of the members of the National Council and the motion was adopted with 104 votes in favour and 60 votes against (Curia vista 2010b).

The debate in the Council of States took place during the spring session (Curia vista 2011b). The advisory committee presented an alternative proposal to the Council of States, which focussed mainly on a solution within the sector, with a much smaller margin for higher levies on surplus quantities and consequently more limited regulation possibilities (Curia vista 2011a). The committee thus advised to reject Aebi's motion.

Meanwhile, Councillor of States Werner Luginbühl supported Aebi's motion, referring to the fact that in the previous year, the net farm-gate-price for milk in his commune had still been between 45 and 55 Swiss centimes (Curia vista 2011b, p. 311). This milk price was considerably lower than the IAW forecast mentioned in the 2002 debates (page 12). Councillor of Stetes Luginbühl spoke in favour of Aebi's motion, taking as an example market regulation measures in other countries (ebenda): *"In agricultural markets with a large number of producers and only few buyers, a certain degree of market failure can generally be observed. This market failure benefits some, while others suffer from it. Other countries also take corrective measures against this market failure: in Canada for example, there are quotas and a high milk price; the US uses intervention measures; and even in New Zealand, probably the most liberal market economy in the world, an incentive tax is imposed on surplus quantities. With these examples I only want to show that in reality milk markets do not work anywhere without at least the use of an incentive tax. Why should it work in Switzerland without any kind of regulation possibilities and measures?*" [32]

Councillor of States Luginbühl questioned the alternative proposal of the advisory committee (Committee for Economic Affairs and Taxation, WAK) on the basis of the following arguments (Curia vista 2011b, p. 311):

1. Giving the responsibility to the industry organisation Branchenorganisation Milch by means of measures of generally binding nature – as suggested by the alternative pro-

[30] Translation of official quote. For the German original, please refer to Haller 2014, p. 24-25.
[31] Translation of official quote. For the German original, please refer to Haller 2014, p. 25.
[32] Translation of official quote. For the German original, please refer to Haller 2014, p. 25-26.

posal of the WAK – would not help to achieve the desired aim, as for years the organisation had failed to find a solution. The reason for this was that trading companies, processors and the retail sector, which benefit from the current situation, were blocking any kind of proposal.

2. The proposal of the WAK to impose a levy to finance the utilization of excess quantities was unfair and would not generate enough money.
3. The interpretation that Aebi's motion did not fulfil the requirements of articles 8 and 9 of the agriculture law but that the alternative proposal did so was not logical, as in both cases a measure would be made generally binding.

Councillor of States Bruno Frick, who was opposed to Aebi's motion, while showing some understanding for the situation of milk producers, replied that returning to a milk quota system was not a convincing solution, as it would harm those who trusted the implementation of the new provisions and invested in larger structures (Curia vista 2011b, p. 312). He said he was convinced that the motion could not be implemented without amending the law and thus not immediately. He stated that, however, a fast solution was necessary, which was the case for the alternative proposal of the WAK; but that the situation had evolved since the proposal was drafted (Curia vista 2011b, p. 313): "*The motion* [of the WAK] *foresees the payment of a solidarity centime, half of which to be paid by producers, half by processors, as well as 2 centimes per litre surplus milk, with 2008 as reference year. The industry organisation would be responsible for the implementation. The advantage of this solution would be that in that case the Federal Council could take action immediately and that the solution could already take effect this year. Our solution dates from 22nd February of this year. Since then the situation has evolved. Today it becomes clear that also in the sector a higher allowance – current proposals amount to up to 5, 6 or 8 centimes I heard – could be a solution. Which is exactly the right solution we do not know. But it is important to hear that the industry organisation of the dairy sector apparently will have an important meeting, during which a solution can be found. My conclusion is thus that Aebi's motion in the form in which it was presented, i.e. simply going back to a quota system, is not the right solution, but that a solution that is viable and is supported by the industry organisation has not been presented yet. I thus came to the conclusion – and I presented a written motion – that we should hand back the issue to the Committee. A lot is going on at the moment and it seems possible to find a solution in agreement with the sector. We should seize this opportunity.*" [33] Councillor of States Frick thus requested for the issue (i.e. of all motions part of the negotiations) to be rejected and transferred back to the Committee, in order to facilitate a negotiated solution with the sector. On the other hand, Councillor of States Konrad Graber, also President of the supervisory board of the largest milk processor, Emmi, advised for WAK's motion to be adopted; he was also convinced about its fast implementation (Curia vista 2011b, p. 314f)[34]: "*The Committee's motion could, on the other hand, already be implemented tomorrow. It requires processors to register the contracts they concluded in a centralised database, in order to make it possible to check the implementation of the ABC segmentation afterwards. For the A-segment – this has not been explained in detail today – we have a widely supported model, which theoretically everyone said to respect: producers, processors and retailers. It provides that the milk price A for milk sold in Switzerland is higher than the milk price B for milk which is exported to the EU. In addition, there is a C-segment for milk sold to companies in countries which are not part of the EU, without subsidies like the cheese subsidies ("Verkäsungszulagen"). The C-milk price would be lower than*

[33] Translation of official quote. For the German original, please refer to Haller 2014, p. 26-27.

[34] For a better understanding of the explanations given in the quotations, we advise you to read chapter 4.1 of the present study.

the B-price. According to the Committee's motion, this model, which was decided by the industry organisation, is to be implemented and made generally binding. For the model to be implemented in an efficient way, the industry organisation needs a clear framework; and the generally binding nature of it is part of this. [...] *In the last months, the segmentation model did not work as well as expected when it comes to its details, because not all processors respected the agreed rules. From my point of view – and this was also clearly visible – B-milk was bought and then sold on the Swiss market. This can be avoided by the adoption of the Committee's motion, as the motion provides for a generally binding nature. That means that all processors and producers have to respect this model.* [...] *We can expect that if the motion is adopted, the industry organisation – and a meeting is expected to take place already tomorrow – will take things into its own hands and implement the resolutions without any further discussions. This is the only way to calm down the situation on the market. On the other hand, Aebi's motion, since it was presented, has at least – let's put it that way – not made the work within the industry organisation easier.* [...] *The industry organisation should now be able to concentrate its full resources on the implementation of the segmentation model it has chosen. I would suggest we proceed this way, also given the current world market price. If exchange rates remain stable and world market prices allow it, I believe it would also be possible to soon implement a price raise of 3 centimes. But in order to do so we need the necessary instruments and the situation needs to calm down. And if you do not support the Committee's motion or, respectively, if you support Aebi's motion, you will not stabilise the dairy market, but you will contribute to the fact that the situation remains insecure."* [35]

Before the vote, the President of the Committee, Councillor of States Eugen David, eventually summarised the debate as follows (Curia vista 2011b, p. 320f):

"Based on the Committee's debate, I say that Frick's motion is, in principle, correct. I disagree with those who say that we will lose time with it. We are not losing any time! Tomorrow the industry organisation will have a meeting; they can agree on a solution and then present it to Federal Councillor Schneider-Ammann[36] *on Monday. On Tuesday – I think it will go fast, Federal Councillor Schneider-Ammann can decide quickly – he will issue a decree. There will be 20 people sitting around the table tomorrow. It is up to them to say: 'So now let's find an agreement!'. They can also say: 'No, we will not do that'. But then they would do it at the farmers' cost. I want to stress that. Because farmers could now benefit from the milk price increase on the international market.* [...], *then the Federal Council will also act quickly; I am confident about that. It does not need another motion of the Councillors, as it is in charge. It can make its resolution generally binding immediately. If we find an agreement and say that these are the points, that we would include them, then Federal Councillor Schneider-Ammann will very quickly decree that the decision that we then agreed on should be generally binding. I would ask him to confirm that. For this reason I advise you to accept the transfer and then to first try to find a solution tomorrow within the industry organisation. If that does not work out, we will, with our colleague Marty as President, start working immediately – with the persons concerned and also with National Councillor Aebi. He raised this question - and he was right; I would like to emphasize that. There is a problem, but his solution is not yet the cream of the crop. We have to find something that will really show results and on what the persons involved can agree. We will invite them and then transfer*

[35] Translation of official quote. For the German original, please refer to Haller 2014, p. 27-28.

[36] Since 2010, Federal Councillor Johann Schneider-Ammann is the member of government responsible for agriculture. Since 2013, his department is called Federal Department of Economy, Education and Research (*Eidgenössisches Departement für Wirtschaft, Bildung und Forschung*).

this proposal to the Federal Council. This is how I see things if the request for transfer is adopted. We will certainly not sit back and twiddle our thumbs." [37]

Councillor of States Bruno Frick's motion of order was adopted by the Council of States by 23 votes against 12 (Curia vista 2011b, p. 321). Although formally this was a transfer back to the advisory committee, but as for its object, it meant that the sector should help itself – which practically had the same effect as if Aebi's motion had been rejected; for the time being, the latter was suspended.

In the course of the political debate on the agricultural policy 2014 (Federal Council 2012), National Councillor Albert Rösti, at the time Director of the milk producer organisation Schweizer Milchproduzenten, eventually presented a motion for an amendment of the agriculture law, which once again followed the objective of making the measure generally binding for Swiss milk producers (Curia vista 2012):

"For a long time, in my role as Director of the umbrella organisation of Swiss milk producers Schweizer Milchproduzenten, I have been searching, together with the organisation, for solutions which would put an end to the misery of the milk market since the abolition of the milk quota system in 2009. Dairy farmers suffer from current milk prices. For many of them – not for all fortunately – the price is under 50 Swiss centimes per litre. In 1993, the milk price still amounted to 1.07 Swiss francs. [...] *The reason for this situation is the asymmetry, the unbalance in agricultural markets, which has particularly far-reaching consequences in the dairy sector. Imagine the content of a milk carton, one litre milk, symbolically represented the volume of processed milk of one of our large processors. In that case, the milk sold by one dairy farmer would represent, in comparison to that milk carton, on average maximum the mass of two pinheads. The milk volume of our four largest processors is sold by over fourty organisations. Given such a structural weakness, minimum rules are necessary so that the single milk producer, the single family of milk producers do not have to suffer the consequences of constantly dropping prices. My minority amendment requires changes to two articles. Firstly – and this is where the main emphasis lies – concerning my minority amendment for article 9: if dairy farmers and producer organisations, by a clear majority vote within their organisations, take together the decision to take measures to adapt supply to demand, then it should be possible for the Federal Council to make this decision generally binding for all. This could avoid that measures that have been voted by a clear majority are not undermined by a few. This possibility is already given today, but only if the situation represents an exception and is not due to structural problems. However, the asymmetry which characterises the market is due to the system and it will remain the same in the coming years, despite important structural changes in the agricultural sector. Because even if there are only 20,000 dairy farms left, there are still only four large processors. Through my minority amendment, the only condition that is limiting the measure already possible today should therefore be abandoned; and the Federal Council should be obliged to make self-help measures binding for all if the necessary quorums within producers or the sector have been reached. For this purpose, a new representative vote of the parties involved is necessary at least every two years. In this scenario, only decisions that were reached with a very high quorum of two thirds can be declared generally binding. So we do not cement anything. It is the involved parties themselves that decide and will eventually also be the ones to benefit from it."* [38]

Rösti's motion concerning article 9 was rejected by 94 votes against 84 (Curia vista 2012, p. 1531). The possibility of making a private law regulation system of Swiss milk producers

[37] Translation of official quote. For the German original, please refer to Haller 2014, p. 28.
[38] Translation of official quote. For the German original, please refer to Haller 2014, p. 29.

generally binding was thus definitively discarded. The motion concerning article 36b which at least included a strengthening of the contractual obligation, was adopted in the National Council by 100 votes against 76 (Curia vista 2012, p. 1532). Nevertheless, after it was rejected in the Council of States, this amendment was also definitively rejected within the procedure for resolving differences [between the two chambers of the Parliament].

In the spring session 2013, it was thus only a formality that the Council of States rejected Aebi's motion, which until that moment had been suspended. Despite that, the declaration of the Committee's spokesperson, Councillor of States Pankraz Freitag, is worth mentioning, given the declarations that had been made in 2002 on the abolition of the quota system and on the necessity of a regulation under private law (Curia vista 2013):

"Andreas Aebi's motion foresees a generally binding regulation model, on the basis of delivery rights of the milk year 2008/09. According to the Federal Council, this would 'de facto equate to a private law milk quota system supported by the State'. And let me add: the reference to the base milk volumes of 2008/09 is also an absolutely unrealistic basis, as in the meantime we are in the year 2013."[39]

Summary of the debate on the implementation of a supply management system under private law:

- The difficult market situation after the definitive abolition of milk quotas – which took place during the first year after the global price increase 2007/08 – triggered an intense parliamentary debate.
- While the National Council could be convinced by Aebi's motion, the Federal Council and the Council of States was opposed to it. According to Aebi's motion, the umbrella organisation of Swiss milk producers (Schweizer Milchproduzenten) would – by means of a declaration of its generally binding nature – be transferred the competence of a supply management system with far reaching regulation possibilities.
- A counter proposal was then discussed in the Council of States. According to this proposal, the industry organisation Branchenorganisation Milch, i.e. representatives of the milk production, trade, processing and retail sectors, would receive the competence of supply management, but with much more limited regulation possibilities than in Aebi's motion.
- But in the Council of States the position prevailed that the sector should be given more time to find a solution itself.
- In the Parliament, the position eventually prevailed that it was the sector's responsibility to find a functioning supply management system for the milk market. It decided against the idea of a private law regulation and in general of a model that in 2003 still seemed possible.

3.4. Possible lessons learned from the political debate

In the political debate of the years 2002/03, i.e. at the moment of the decision on the quota abolition, the extent of this liberalisation phase was relativized: it would merely be a question of a transition from a public regulation system towards a one under private law (paragraph 3.1). But those who then hoped that the government would help the sector to implement efficient measures to limit production were disappointed. The position prevailed that the sector had to take responsibility and agree on new rules for the dairy market. Which

[39] Translation of official quote. For the German original, please refer to Haller 2014, p. 30.

lessons do representatives of producers learn from this experience? The three following points provide guidelines:

1) Political promises referring to the future should not really be trusted. Opinions and majorities can change; only decisions count.
2) The representation of interests and the possibilities of political influence are asymmetrical. The fact that milk producers were able to get the larger house of the Parliament to agree with their position but not the smaller chamber is not a coincidence. In the latter the influence of the processing sector is stronger. They create employment and their decision makers are thus heard.
3) It is to their advantage if representatives of producers are proactive and do not wait for the government to take initiative. Although it is not sure if they could have got their interests through more easily at an earlier stage, it became clear that the political will to take long-term measures in the interest of producers was not very strong after the definitive abolition of quotas in 2009.

4. Activity of the dairy sector related to the quota abolition

This chapter is divided in several sections, which correspond to different periods of time. Chapter 4.1 describes the sector's activities before and chapter 4.2 the activities after the quota abolition. Section 4.3 provides a summary of the most important findings resulting from those activities.

4.1. Activities of the sector during the transitional phase until May 2009

After the detailed provisions on the quota abolition decided in 2004 (cf. chapter 3.2), milk producers created producer organisations (PO) and producer-processor-organisations (PPO), in order to fulfil the necessary conditions for an early exit. The minimum volume requirements, i.e. 50 million kilos for POs and 20 million kilos in the case of a PPO, were quite low. This lead to the creation of **more than 40 organisations**, which resulted in a fragmentation of milk supply. As the market situation significantly improved after the political debate, the administration had no reason to reject the organisations and in particular the additional quantities they requested. As a consequence, volumes increased considerably already before the definitive quota abolition as of 1st May 2009. Due to the global milk shortage, at first (from 2007 until 2008) the increase in volumes was even accompanied by rising producer prices, which stimulated the increase in production even further.

The implementation of volume regulating measures on a national level was thus difficult, on one hand because of evident conflicts of interest between the different levels of the value chain (for example concerning prices), and on the other hand due to a lack of consensus among milk producers. This led to the creation, in 2008 – i.e. before the quota abolition, of the Association of Swiss Milk (Verein Schweizer Milch, VSM) without the umbrella organisation of Swiss Milk Producers SMP (Schweizer Milchproduzenten). The latter had always been in favour of a private law regulation of additional milk volumes, following the "polluter pays principle" – which was not the case for the members of the VSM. Next to large processors and the retail sector, VSM's members included producers who had already benefitted from an early exit for quite a while and who therefore were against a differentiation between additional quantities and the initial quota levels in the event of regulation measures.

Under the leadership of the umbrella organisation of milk producers SMP, during 2007/08 there were efforts to set up a **National Milk Pool**. The former director, Albert Rösti, described those efforts in his 2007 report (Geschäftsbericht 2007 – SMP 2008, p. 3): *"We are pleased to announce that the strategy for the development of the dairy market until 2015, formulated during the reporting year, was adopted unanimously by the Executive Committee and the directors of the regional member organisations. And as the numerous regional events confirm, it also has the members' support. Milk producers* [...] *agreed that successful negotiations on price and volumes require a concentration of supply structure.* [...] *This is a big challenge within the cooperative society of Swiss Milk Producers SMP, given its federal structure. As a consequence, we have always stated that we have to be ready to pursue the objective of concentration of supply in a pragmatic way. Looking back today, we can see that despite discussions that at times were controversial, a lot has been achieved in this regard during the reporting year. The organisations LOBAG, Nordostmilch, Prolait and ZMP have set the necessary grounds for the creation of a national pool. This will allow the pooling of about 45 per cent of dairy milk. In parallel, a further concentration of supply was achieved through the creation of the platform of Emmi milk suppliers with the participation*

of MIBA, MIMO, BEMO, ZeNoOs and Thur Milch. Together, the national pool and the platform market 75 per cent of dairy milk." [40]

But afterwards it became clear that the willingness of the single organisations to accept a subordinate role to a larger association shortly after the quota abolition was very limited. The national milk pool could thus not be put into practice. 2009 it also became clear that the VSM, which only represented a minority of milk producers, was lacking a larger support from milk producers and was thus lacking stability. This led to the creation of the industry organisation of the dairy sector Branchenorganisation Milch (BOM) – with the participation of the SMO. [41]

4.2. Activities of the sector after the definitive quota abolition in May 2009

The following attempts to introduce regulating and stabilising measures under private law (table 1) took place at the same time as the political debate described in chapter 3.3. When the pressure on the market increased due to lacking private law regulation measures, there was also an increased pressure for political measures to be taken. The political discussions, on the other hand, put pressure on the industry organisation to implement solutions. When decisions on possible solutions were then taken within the industry organisation, the political will to decide on binding measures faded away, which as a consequence lowered the sector's intention to entirely implement the decisions previously taken. This interplay eventually led to the fact that until today, there are still **no efficient measures to stabilise the market in case of a crisis due to surpluses**.

The BOM, as an association of milk producers, processors and retailers, had already decided on a **model with reference quantities** – similar to the regulating measures of the cheese organisation (Sortenorganisation für Käse) – before Aebi's motion was put forward (BOM 2009). Although the Federal government had declared the system as generally binding (Federal Council 2009; cf. declarations of Federal Councillor Leuthard concerning Aebi's motion), the members of the BOM were not ready to sell milk on the market platform to a lower price. In addition, the Executive Committee lacked the will to effectively reduce the reference quantity. As an alternative, the SMP (2010) developed a model of graduated levies paid into a market relief fund. National Councillor Aebi brought this model into the parliamentary debate (cf. chapter 3.3). This proposal initiated a real quarrel in the dairy sector about who should pay into this fund. With the early exit option, some producers had been granted the possibility to produce surplus quantities, which they now wanted to continue producing without having to pay a higher levy. On the other hand, those who did not consider themselves responsible for the market imbalance insisted that producers who had increased their production should pay higher fees.

As a consequence of the non-implementation of the system of reference quantities, the BOM decided to enforce a **segmentation into A, B and C quantities** with accordingly different prices as of the beginning of 2011 (BOM 2010). "A" quantities were defined as the volumes sold on the protected market (tariffs) and the supported market (cheese subsidy, chocolate law). "B" quantities refers to milk, the protein of which is exported to the EU and the fat of which is sold to Swiss prices, whereas "C" quantities have to be sold entirely on the world market. In relation to the political discussion around Aebi's motion, the BOM eventually de-

[40] Translation of official quote. For the German original, please refer to Haller 2014, p. 32-33.

[41] Due to different versions of target price development, the SMP has opted out of this as well in protest of the short time frame. We will not go into the details of these aspects in this report as they are not of special relevance. But they are a sign of tensions created by the abolishment of the milk quota system in Switzerland within the sector. Annex 9 (Press releases SMP) and Annex 10 (Press releases BO-Milch) provide greater detail of these aspects.

cided to complement the ABC-model with a **market relief fund**, which would be financed through a graduated levy of one Swiss centime on all milk and of 4 centimes on excess quantities (BOM 2011). This system aimed at reducing the price difference between A, B and C milk as well as at lowering the incentive to deliver C milk to the A segment. The Federal government declared the levy of one centime as generally binding until the end of 2013 (Federal Council 2011), which allowed for a considerable reduction of butter stocks. However, due to a complaint, the four-centime levy was not declared as generally binding. As a consequence, the model did not serve as a regulating tool. Even within the BOM the model could not be implemented, as in 2012 only a small share of the organisations selling milk provided the necessary data on produced excess quantities.

Table 1: Private law regulation and stabilisation measures 2009-2013

Measure	Implementation
2009: Reference quantity and market platform in the BOM • Reference quantity according to current production volume per PO or PPO; • Production volume 2009 = reference (100%); • Adaptation of the reference by the BOM Executive Committee according to demand for milk with high added value (so-called "A" milk); • Online market platform for centralised marketing of remaining milk at a lower C price; • Allocation of a necessary reduction of the reference quantity: 20% of the reduction distributed among all organisations and 80% spread among those who had increased their production since the abolition of quotas.	Measure declared as generally binding (Federal Council 2009); failed implementation within the BOM
2010: Graduated levy paid into a market relief fund • Cheaper export of surplus milk to stabilise domestic milk prices (market segmentation); • Creation of a joint solidarity fund to finance this measure; • Higher levy on additional quantities: volumes produced additionally to the former quota subject to a higher levy than the one to be paid on the quantities corresponding to the original quota volume (cf. chapter 3.3, Aebi's motion).	Request to make the measure generally binding (Aebi's motion) failed; measure was never implemented
2010: ABC-model of BOM • Segmentation of milk according to its use and the corresponding value creation; • "A" milk for products with a high added value (protected and supported market); • "B" milk when protein exported and fat sold on domestic market; • "C" milk for entirely exported milk products (at world market prices); • BOM publishes reference price for A milk on a quarterly basis.	Measure declared as generally binding and (partial) implementation

2011: Market relief fund of BOM • Market relief fund based on ABC model; • Financed through a graduated levy (one Swiss centime for all milk, four centimes on additional quantities).	Only general levy implemented (until the end of April 2013), but not additional levy

Although there are regular complaints that the segmentation is only partially implemented (cf. declarations in the debate on Aebi's motion in chapter 3.3), the reference price and the segmentation are currently (2014) the only still existing instruments to stabilise the market. It remains open whether the current segmentation model with reference prices but without a compensation fund – there are renewed discussions on such proposals – would have a sufficiently stabilising effect in case of a price collapse.

Overall it can be said that milk producers and the whole sector in general tried to find a supply management model under private law. But the measures decided upon during and after the quota abolition could not or only partially be implemented. With the help of the government there were efforts to find possibilities to oblige "free riders" to apply the measures. Despite declarations on the necessity of a supply management system under private law after the phasing out of the public system (cf. chapter 3), political debates had only led to partial or short-term measures. The heavy price losses incurred by producers (which can also not be excluded in the future) were regarded by a majority of the Parliament as a consequence of structural problems, for which the sector would have to assume responsibility and fins a solution itself. But so far the sector was not able to agree on a real supply management system under private law. As a consequence, producers are exposed to the free play of supply and demand. Due to the oligopolistic structure that prevails in the dairy sector, the situation thus continues to be very difficult for dairy farmers.

4.3. Possible lessons from the sector's activities

As it was the case for the political debate, the activities of the dairy sector before, during and after the quota abolition should allow us to draw some lessons:

1) The efforts towards finding a functioning supply management system under private law are shaped by divergent interests, which makes joint solutions difficult. Before the implementation of the quota abolition it might still have been easier to at least find a consensus among producers. But at that moment the pressure to find a solution was still low.
2) For the implementation of measures for the good of the many, thus for milk producers as a whole, it is always important to see which advantages or harm arise for the individual:
    - It became clear that only measures to finance the use of surplus quantities could be implemented. This helped to release the pressure on the market and, on a short term, to stabilise prices (but it did not provide a long-term solution).
    - In discussions on measures aiming at regulating supply, there were always some producers who felt that those measures were at their disadvantage. None of the discussed measures did come through, among others due to a missing consensus among milk producers.
3) When milk producers do not agree among themselves, it is easy for the processing sector to make their own interests prevail – both in negotiations and on a political level.

5. Developments of the market and effects of accompanying measures

This chapter first describes basic principles of agricultural economics in the dairy sector (chapter 5.1). This then allows an analysis of the developments around the quota abolition (see chapter 5.2).

5.1. Basic principles of agricultural economics

The political debate as well as market developments and the effect of accompanying measures are easier to understand when taking into account some basic principles of agricultural economics. The following sections aim at providing a clear overview of those basic principles.

5.1.1. Economic aspects of the quota system

In the run-up to the political decisions, the Federal Office for Agriculture (FOAG) launched several scientific studies on milk market management. Lehmann et al. (2000) showed that the majority of milk producing companies would increase their production in the event of a liberalisation of the sector. This statement is based on a survey among farms and can be motivated from an economic point of view (Figure 3): a company's profit depends on the difference between the average revenue (i.e. the price per kg of milk) and total average costs (production costs per kg of milk), multiplied by the milk volume.

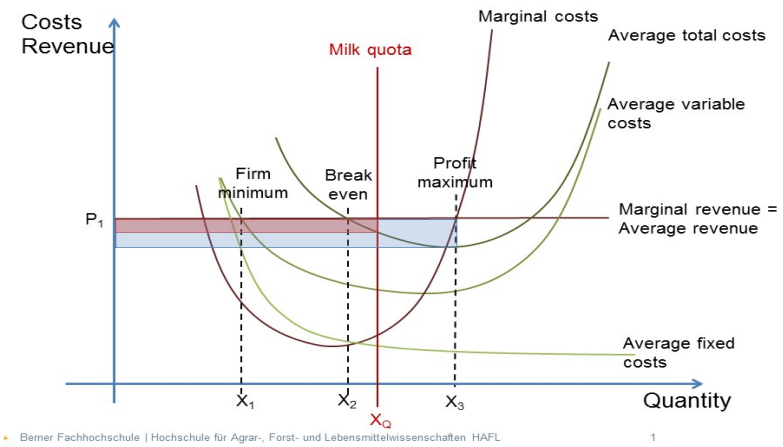

Figure 3: Cost structure of a single farm and effects of milk quotas on profits

The profit is the highest (blue area) with volume X_3. Beyond this quantity, the marginal cost (i.e. the additional cost of production for one additional kg of milk) is equal to the marginal revenue (i.e. the milk price). If due to quotas the delivery rights of the agricultural holding is limited to the quantity X_Q, the holding cannot use its production facilities in an optimal way – it thus has overcapacity. Its profits (red area), both total profits and profit per kg of milk, are smaller than if it was using its capacity to the full. In addition, in the case of quotas, it is going to face losses already in the event of much smaller price falls than if it could adapt produced volumes freely. At the beginning of the millennium, a majority of agricultural holdings in Switzerland – and also of processing companies – had overcapacity. If the quota of this holding was fixed at a level below X_2 (break even, profitability threshold concerning the volume – see Figure 3), it would not be able to cover all fixed costs anymore (above all costs for barn, milking parlour and mechanisation). In other words, the holding would live on its capital. On a long-term, the average volume produced should thus be above X_2. If the quantity was even limited to an amount below X_1 (operating minimum), the holding would not even be able to cover its variable costs. In that case it would be better off if it sold the cows and gave up production (production threshold concerning the volume). In family farms the limit of the operating minimum is not so clear, as their inputs (especially the work provided by family

members) are rarely remunerated at a market price. A family farm is thus viable longer than a holding working with employees whose salary needs to be paid.

The abolition of the milk quota system will thus have as a result that each holding will increase its produced milk volumes until it reaches its quantity-related maximum profit. At which quantity of milk this threshold is reached depends on the milk price (Figure 4): when the milk price drops to the level of P_2, the holding can just about cover its total costs (average total costs = milk price P_2), but cannot make any profit. This point is considered as efficient from the point of view of the economy as a whole because it allows for milk to be produced at the lowest cost level per kg. However, at the same time, the holding is dependent on the fact that the milk price stays at least at the level of P_2, because otherwise it will again live on its capital. If the milk price drops under the P_3 level, it will put an end to production on a short term, as in that case it is better off if the barn is empty and the machinery is not used (production threshold concerning the price).

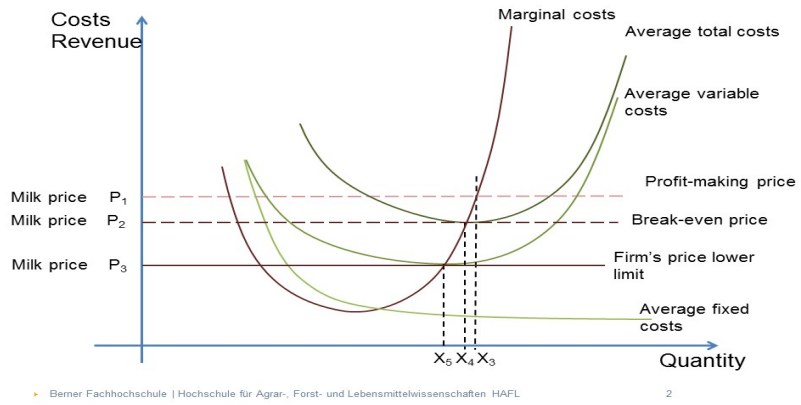

Figure 4: Cost structure of single farms and effect of dropping milk prices on profit potential

At what level these critical prices and quantities are set depends on the exact cost structure of each holding.

The cost structure of an agricultural holding can change, for instance with the investment in a bigger equipment. This results in higher fixed costs (the curve moves to the right), whereas variable costs – in particular labour costs per kg of milk – go down (the curve moves down). The overall cost of production is going to be lower, but the farm is now dependent on higher volumes to reach a sufficient utilisation of its capacity.

5.1.2. Market equilibrium with and without quotas

After having analysed the situation from the perspective of a single farm, we will now examine it from the point of view of the market as a whole. Figure 5 shows the effects of a quota abolition.

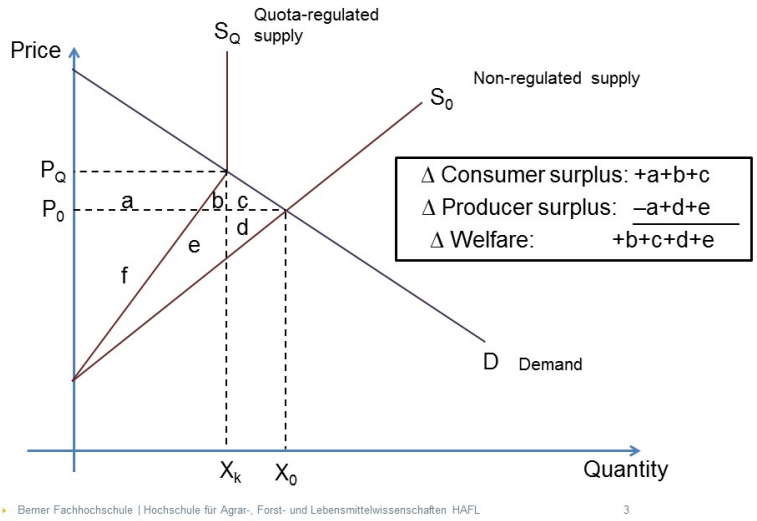

Figure 5: Total economic effects of the abolition of the milk quota system
(Representation devrived from Henrichsmeyer & Witzke [1994 p. 215])

Without quotas, dairy holdings are able to produce at lower costs due to a better utilisation of their equipment. As a result, there is more milk on the market at the same price (S_0 is right of S_Q). The price results from the market equilibrium at the intersection of the supply curve S_0 and the demand curve D. Although due to the price drop from P_Q to P_0 milk producers lose some revenue (equivalent to area a), they can achieve a higher income (equivalent to areas d+e) because of a higher milk volume and lower production costs.

Whether producers have a higher income in total depends on whether area d+e is larger than area a. For consumers (and dairies) and for the good of the country as a whole the effect of a quota abolition is in any case positive. This means that such a liberalisation phase makes sense from the point of view of the economy as a whole and that some persons will be in favour of such a measure, even if producers could suffer from it.

For the year 2000, Lehmann et al. (2001, p. 22) calculated the equilibrium of the Swiss dairy market without quotas (price P_0 and volume X_0 in Figure 5). Their findings showed a volume of 3.8 million tons and a milk price of 60 to 63 Swiss centimes (cf. the political debate in chapter 3.1). This represents a 31% volume increase and a price drop of 21-25% compared to the market equilibrium with quotas[42].

5.1.3. Development of the processing sector's demand

The volume and price level corresponding to a market equilibrium in case of a quota abolition depend on demand elasticity of the processing sector, i.e. on to which extent demand would grow in case of dropping raw milk prices (Figure 6). This is dependent on the increase of competitiveness of the processing sector in the event of lower raw material prices and on its possibilities to increase the sales of their processed products. Here as well, it is thus important how their customers' demand evolves. The latter include the retail sector but for example also the chocolate or biscuit industry.

[42] Based on an extrapolation of model results, where the total milk volume was slightly lower than the actual quota volume of the year 2000 (3.2 million tons). According to estimations of Lehmann et al. (2001, p. 14), for this question this discrepancy is, however, negligible.

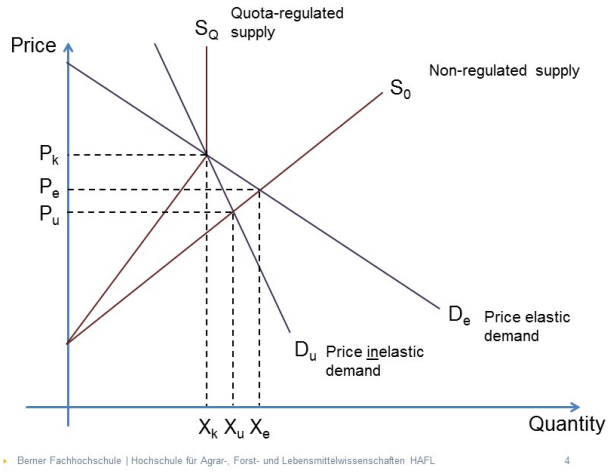

Figure 6: Effect of demand elasticity on quantity and price development in case of removal of the milk quota system

Based on surveys among experts, Lehmann et al. (2001) estimated that with a milk price between 62-65 Swiss centimes per kg (i.e. with a price reduction of 18-19%), the demand of the processing sector would increase by 14% (448 million kg) compared to the year 2000. On one hand, according to these estimations, domestic sales could have increased by 130 million kg milk equivalent, due to lower prices of milk products. On the other hand, exports were hoped to increase by 318 million kg of milk equivalent, among others because of the free trade agreement on cheese planned with the EU at the time. Compared to these numbers, the volume increase as predicted by the same study on the basis of model results (chapter 5.1.2) seemed very optimistic.

Next to the question of the elasticity of supply, market power also represents an important issue. When companies are in a strong position that allows them to dominate the market, their behaviour has an effect on prices. If for a very large number of milk producers there are only a few processors, the market is characterised by an asymmetric distribution of power to the producers' disadvantage. This lowers the probability that the effect of the quota abolition described in chapter 5.1.2 would be positive for all milk producers.

5.1.4. Distribution effect and regional differences

In order to have a complete picture it is important, as a next step, to combine the sectoral approach of chapters 5.1.2 and 5.1.3 with the farm-perspective of chapter 5.1.1. Regardless of the fact whether the result of a liberalisation of the market would be overall positive or negative for producers, it is very likely that due to the different cost structures there would be both winners and losers. Those with the largest disadvantages regarding costs will be the first ones to abandon production; by doing so, they give others the possibility to grow. The liberalisation phase thus accelerates structural changes, making milk production overall more competitive. This is a desired effect for the future potential of the sector, but it cannot hide the fact that the transitional period by which it would potentially be accompanied would be extremely difficult for individual dairy holdings.

Production costs not only differ between successful and less successful holdings, but are also dependent on regional circumstances or production rules (for example for organic production). There is thus the risk that milk producers from entire regions will be losers and that production will disappear entirely from some regions. Especially in regions where agronomic conditions are more difficult, like for example in Swiss mountainous regions, it could put general economic services such as the preservation of the landscape at risk and lead to rural depopulation.

Model calculations of Lehmann et al. (2001, p. 22) show that although in the event of an abolition of quotas milk volumes would increase by 74% in valley regions and by 30% in hilly areas, milk supply in mountain regions would drop by 18%. Based on this forecast, they pointed out the conflict between the aim of a major increase in efficiency and regional and structural objectives. The possibility of an early exit for milk producers in mountain regions

with summer grazing as well as for organic milk producers is to be seen from this perspective (cf. chapter 3.2).

5.1.5. Regulatory and steering measures of the sector

As shown in chapter 5.1.2, it can be expected that following a liberalisation of the market there would be losers at production level. It is therefore understandable that accompanying measures during the transitional period and follow-up arrangements play an important role for producers. But due to the asymmetrical market situation, some regulatory or steering measures can also be justified from the perspective of the economy as a whole.

A set of supply regulating measures aims at having a stabilising effect on prices. In principle, such a set of measures is possible at different levels of the value chain – at the level of raw milk or of processed products. However, the precondition is always a pooling of supply, which can be problematic in terms of antitrust law.[43]

Pooling can for example be implemented by means of a milk pool. The basic principle of such regulating measures is to keep the domestic price (or the price of a submarket) stable on a higher level, by moving a part of supply, which is not sold at this price, to another market ("regulating quantity", cf. Figure 7). However, as the product can be sold only at the lower price P_{ex} on the other market, there is a drive to equalise this price difference.

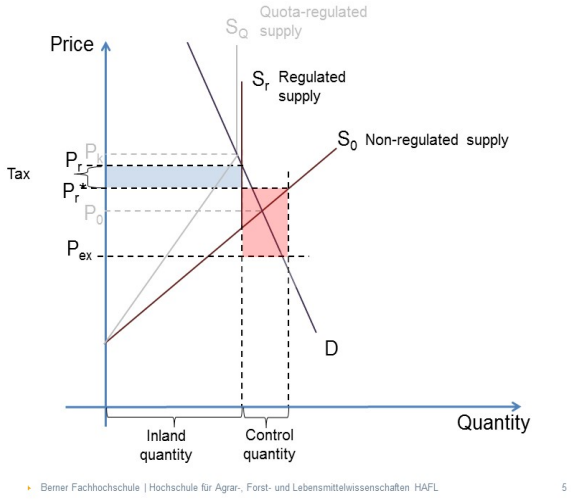

Figure 7: regulation of supply through exports

So if the milk pool can sell the regulated milk quantity to the industry at the price P_r, it will only be able to pay producers the price P_r^*. It will calculate a levy (see blue area), which will allow it to cover the price difference (see red area). But the problem in that case is that producers who are not members of this milk pool can sell their milk to the industry at the higher price P_r. So there is an incentive to refuse to become a member of the milk pool ("free rider problem"). The more producers do not follow, the bigger is the burden of the remaining members of the milk pool. If the levy is to be paid based on the polluter-pays principle – i.e. producers who increased their milk volumes have to pay more – the incentive to leave the milk pool is stronger. Especially for producers who invested in bigger equipment it would not make sense from an economic point of view to go back to their former quota volume (cf. chapter 5.1.1).

So from the dairy farmers' point of view the question of supply regulation is twofold: the pooling of as much of supplied milk as possible and the amount of the levy. As shown above, those two problems are connected. The model of a **national milk pool** is based on the principle of solidarity among producers. The reasons why the idea of solidarity among producers does not work are laid out in the explanations above. A legally binding declaration of general applicability would in principal allow compelling all milk producers to show

[43] Questions regarding competition law are not treated further. However, according to Swiss law, some limitations of economic freedom are allowed for the pursuit of agricultural policy objectives, which is contradictory to competition law; a more detailed analysis in relation to the dairy market is given by Simon (2012). It is nevertheless important to point out that the legal practice regarding competition law in Switzerland differs from other countries, like for instance Germany (cf. for example Stutzer 2012).

solidarity with their colleagues. But in order to do so, political authorities need to be convinced to support a model of sanctions. As shown in chapter 3.3, this was only possible in a very restricted way.

But all these discussions on the producer level distract from another difficulty: if domestic supply is to be regulated by means of exports, milk producers are dependent on processors, as exports of raw milk are not possible. Relations to third countries concerning prices are organised in a way that it is always butter that is used for regulating purposes. Discussions take place on a regular basis on how butter stocks can be reduced – due to the asymmetry of the market and lacking transparency in the processing sector, producers are therefore in a weak position. The missing transparency in the processing sector is also a reason why the ABC-model only works to a certain extend. If it would work, butter exports would already be financed upfront, thanks to different prices of raw material – thus by the purchase of C-milk. In this sense, the creation of Lactofama AG[44] in March 2014 could help to reach this aim. But it appears that also in that case the question of how to obtain the necessary financial means is not yet solved.

5.2. Developments of the Swiss dairy market during the abolition period

5.2.1. Price trends

With regard to producer prices (cf. Figure 8) the price peak of 2007/08 stands out. It was due to developments on global milk markets, which lead to a price increase in both the Swiss and the EU market – even if only for a short period. Apart from this peak, Swiss producer prices show an overall negative trend until 2012. Whether the developments that started in summer 2013 reverse this trend is not yet known. After the price peak in Switzerland, a clear differentiation of prices took place between milk for cheese production and dairy milk (i.e. industrial milk). Until the price peak, prices of organic milk became closer to those of conventional milk, but afterwards the difference became bigger again. This is in part due to the fact that the largest marketing organisation of organic milk regulates organic milk supply by downgrading part of it to "normal" industrial milk.

If the average milk price of the years 2000/02 is set as 100%, we can see that in the course of the 10 years until 2010/12, Swiss industrial milk lost 24%, milk processed into cheese 15%, and organic milk 19% of its value. The average value loss of all types of milk sold on the market amounted to 22%, i.e. slightly more than the value loss of 18-19% forecasted by Lehmann et al. (2001). This means that above all industrial processors are able to buy their raw material at a significantly lower price.

[44] This company was founded by the largest producer and marketing organisations, together with the Swiss milk producer organisation SMP. The idea is to buy C milk coming from seasonal surplus production, which is then processed and exported. (Lactofama 2014)

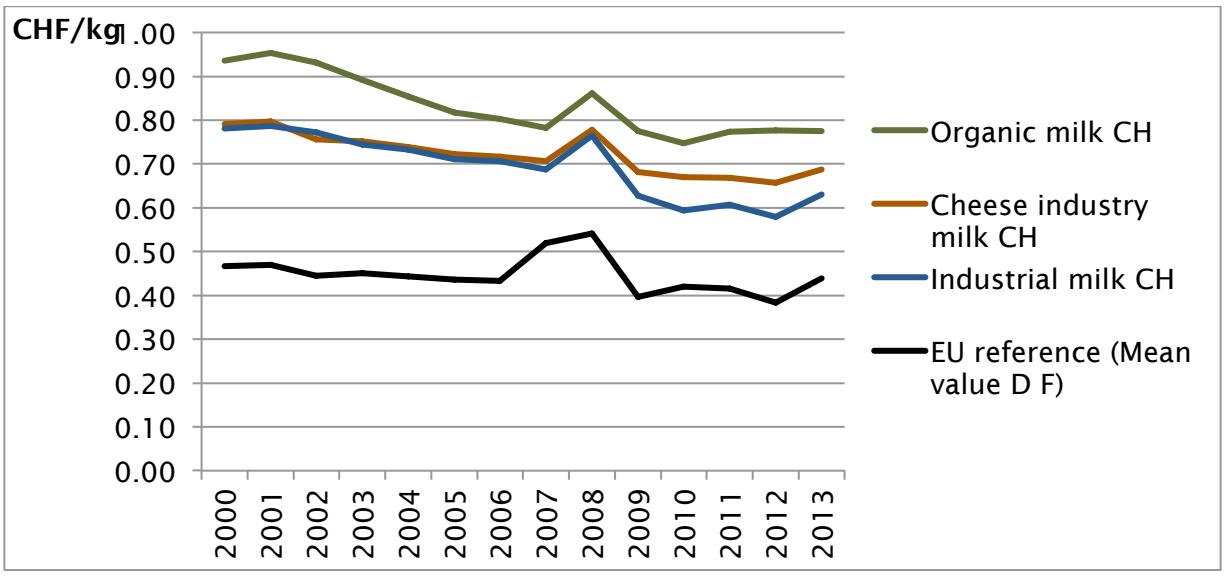

Figure 8: Development of producer prices for raw milk in Switzerland, with reference to EU

Source: BLW market reports (several years), BMELV, Agreste; Exchange rates: SNB (2014)

In order to have a better understanding of price developments in Switzerland, they can be compared with prices in the neighbouring countries. Concerning the EU reference in Figure 8, please note that the prices have been converted into Swiss francs. They thus do not match the developments perceived by producers in the EU. In the beginning of the year 2000 the Swiss milk price was still more that 30 Swiss centimes above milk prices in Germany or France; until the year 2013, the difference for dairy milk decreased by more than a third to reach about 20 Swiss centimes. Without the parallel appreciation of the Swiss franc against the euro, the difference between producer prices would thus be even smaller.

The development of average prices only partially reflects the situation on individual farms. For instance, the price of milk processed into cheese varies significantly from one cheese dairy to another. In 2011, producers selling their milk to dairies processing it into Gruyère AOP cheese received an average price of 0.82 CHF/kg of milk; milk suppliers of dairies producing Emmentaler AOP cheese received an average of 0.59 CHF/kg (excluding the bonus for not using silage). For Gruyère producers, those prices have risen by 3 Swiss centimes compared to 2005, whereas for Emmentaler producers they had dropped by 8 centimes (cf. Flury et al. 2014). This is mainly due to the different market developments of these two types of cheese.

Between 2000/02 and 2010/12, consumer prices for milk products also varied, to very different extents. For instance, the price of fresh milk (pasteurized whole milk) dropped by 9%, the one of traditional butter ("Vorzugsbutter") by 5%, whereas the price of cooking butter ("Kochbutter") rose by 2%. Emmentaler AOP cheese lost 10% of its value at consumer level in Switzerland, Gruyère AOP 3%, and Mozarella even 29%. Those estimations are based on agricultural reports of the Swiss Federal Office for Agriculture (Bundesamtes für Landwirtschaft, BLW 2003, 2011, 2013).

In comparison to neighbouring countries, the gap between consumer prices did not diminish, contrary to the difference between producer prices (Figure 9). In the years 2010/12, Swiss consumers paid 79% more for butter, 68% more for Emmentaler and 47% more for fresh milk than in neighbouring countries (2000/02 those differences amounted to 52%, 63% and 39%, respectively). Nonetheless, if these prices are converted at constant exchange rates, at least a theoretical difference can also be observed for consumer prices, even though this theoretical difference is much smaller for butter than for fresh milk or Emmentaler cheese. Independently of exchange rates, it can be concluded that – if that was the

case – consumer prices moved to a much lesser extent towards the EU price level than producer prices did.

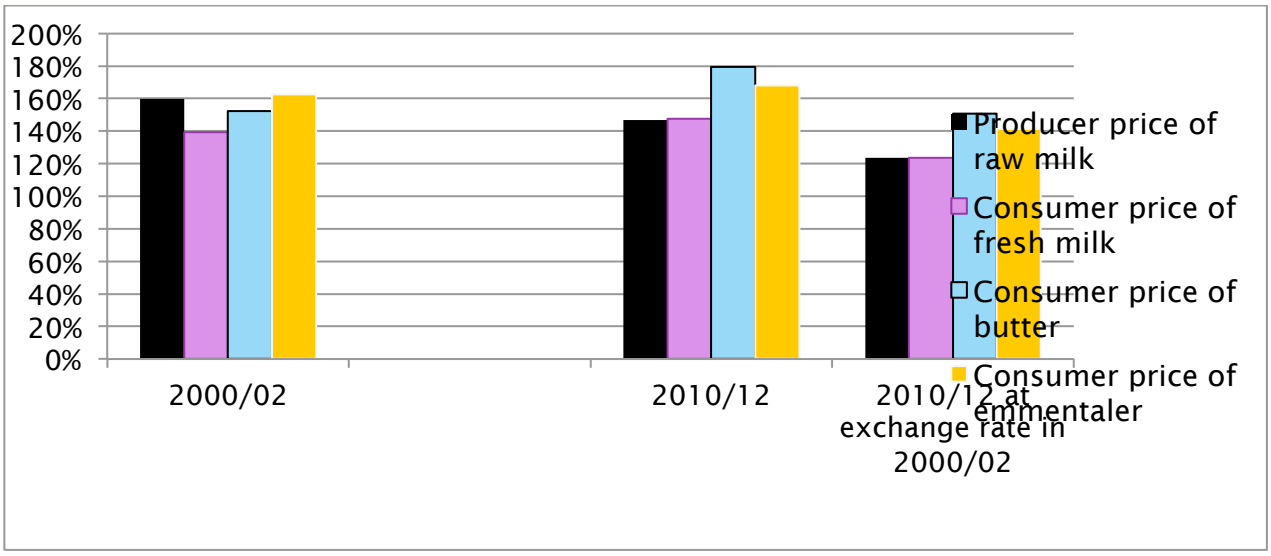

Figure 9: Ratios of selected consumer and producer prices in Switzerland and respective prices in neighbouring countries[1]

[1] Neighbouring countries: Germany, France, Austria, Italy (2010/12 without Italy); exchange rate adjustments according to SNB (2014)
Source: Agricultural reports (BLW 2003, 2011, 2013)

For the competitively of the Swiss dairy sector compared to third countries (with the exception of the cheese market following its liberalisation with the EU), not consumer prices but the dairies' wholesale prices are important. In this sense, it can be observed that Switzerland is much closer to EU or world market prices for milk protein (skimmed-milk powder) than for milk fat (butter).

5.2.2. Developments in dairy farms

Between 1999 and 2012, the number of dairy farms decreased by almost 15,000 (i.e. 37%); in valleys the number of farms that put an end to milk production was higher than in mountain regions. Overall, structural changes before the quota abolition went faster (-3.1% per year) than afterwards (-2.9% per year; source: BLW 2013). The structural changes enabled the remaining farms to grow. In 1999, only 20% of farms produced more than 100,000 kg milk per year, whereas in 2012 this number had increased up to 56%; 7% of all farms even produced more than 300,000 kg milk per year, whereas in 1999 this was not the case for any farm (Flury et al. 2014).

An indication of efficiency increases and cost reductions linked to the growth of dairy holdings is given by the developments in factor productivity (Table 2). For that purpose, a comparison with developments immediately before the quota abolition provides useful information. The average of, respectively, the years 1999/2000 is thereby used as a reference; the Swiss Farm Accountancy Data Network (Zentrale Auswertung von Buchhaltungsdaten) serves as a basis (cf. Flury et al. 2014, p. 22-24 for the complete time series).

Both time periods in Table 2 cover six years. The output per unit area was slightly increased in valley and hilly regions until 2006, whereas in mountain regions there was a slight drop. In the period after the beginning of the early exit of the quota system, a clear increase can be observed, which was highest in valleys and smallest in mountain regions. Compared to the productivity per unit area, labour productivity showed significantly bigger improvements. Over the whole period, the productivity increase for this factor was also lower in higher alitudes. After the beginning of the quota abolition, this development slowed down in all regions, contrary to the area factor. With regard to capital productivity,

only a slight or moderate development was observed; the situation in the different regions did not reveal any pattern.

Table 2: Variations in output per unit area in milk production, according to regions[1]

Output per unit area (kg of milk per ha main fodder area)	kg milk per unit		variations compared to 1999/00		
	1999/00	2012	Total	until 2006	after 2006
Valleys	10‘295	12‘310	+19.6%	+2.8%	+16.8%
Hilly regions	8‘655	9‘783	+13.0%	+3.0%	+10.1%
Mountain regions	6‘060	5‘951	-1.8%	-6.0%	+4.2%
Labour productivity (kg of milk per annual work unit)	kg milk per unit		variations compared to 1999/00		
	1999/00	2012	Total	until 2006	after 2006
Valleys	109‘462	161‘254	+47.3%	+27.9%	+19.4%
Hilly regions	87‘282	125‘089	+43.3%	+22.6%	+20.7%
Mountain regions	66‘025	90‘276	+36.7%	+26.1%	+10.6%
Capital productivity (kg of milk per Swiss franc of assets)	kg milk per unit		variations compared to 1999/00		
	1999/00	2012	Total	until 2006	after 2006
Valleys	0.27	0.28	+4.4%	+4.3%	+0.1%
Hilly regions	0.24	0.26	+8.6%	+3.6%	+5.1%
Mountain regions	0.19	0.20	+1.7%	+6.4%	-4.7%

[1] The basis of these calculations are the productivity values estimated by Flury et al. (2014, p. 22-24), based on basic reports of the Swiss Farm Accountancy Data Network (Grundlagenberichte der Zentralen Auswertung), several years. The factor values always refer to the branch milk production.

Overall, the quota abolition seems to have enhanced the productivity of the factor 'surface area', while rather slowing down the growth of the productivity of the factor 'labour'. This is mainly due to the fact that already since 1999, the trade in quotas has enabled some flexibility in relation to produced volumes and thus a better utilization rate of the labour factor. However, all productivity criteria seem to show that mountain regions benefited much less from the quota abolition than valley and hilly regions.

5.2.3. Development of supply for milk processed in Switzerland

According to estimations of the study of Lehmann et al. (2001), in case of a drop of milk prices (as it was the case in reality) , produced and processed milk volumes in Switzerland would increase by around 14% (chapter 5.1.3) or, depending on price developments (chapter 5.2.1) even slightly more. However, in reality, the volumes produced in the years 2010/12 were only 8% (i.e. 245 million kg) higher than in the years 2000/02 (cf. Figure 10). The biggest increase could be observed for the production of butter (+22,5%) and durable dairy products (+10,6%), which include above all skimmed-milk powder.

As indicated in chapter 5.2.1, developments of the market of the end product play an important role in price developments of the raw material. An important indicator in this sense is the share of export. While in the years 2000/02 about 21% of milk produced in Switzerland was exported as processed products, ten years later this number had risen to 27%. This corresponds to an increase of exported milk volumes of about 40% or 260-270 million kilogrammes milk equivalent.[45] This increase is also underneath the expectations before the quota abolition (cf. Lehmann et al. 2001). With regard to the value creation potential, it is questionable that the volume increase occurred more than proportionally in the production

[45] As calculation methods for milch components per kg milk have changed over time, these estimations are not precise.

of butter, which – due to the price relations mentioned in chapter 5.2.1**Fehler! Verweisquelle konnte nicht gefunden werden.** – can only be exported taking into account heavy losses. Since 2008, the amount of butter produced in Switzerland has exceeded demand every year (cf. BO Butter 2014). These exports are excess quantities and do not respond to a market demand.

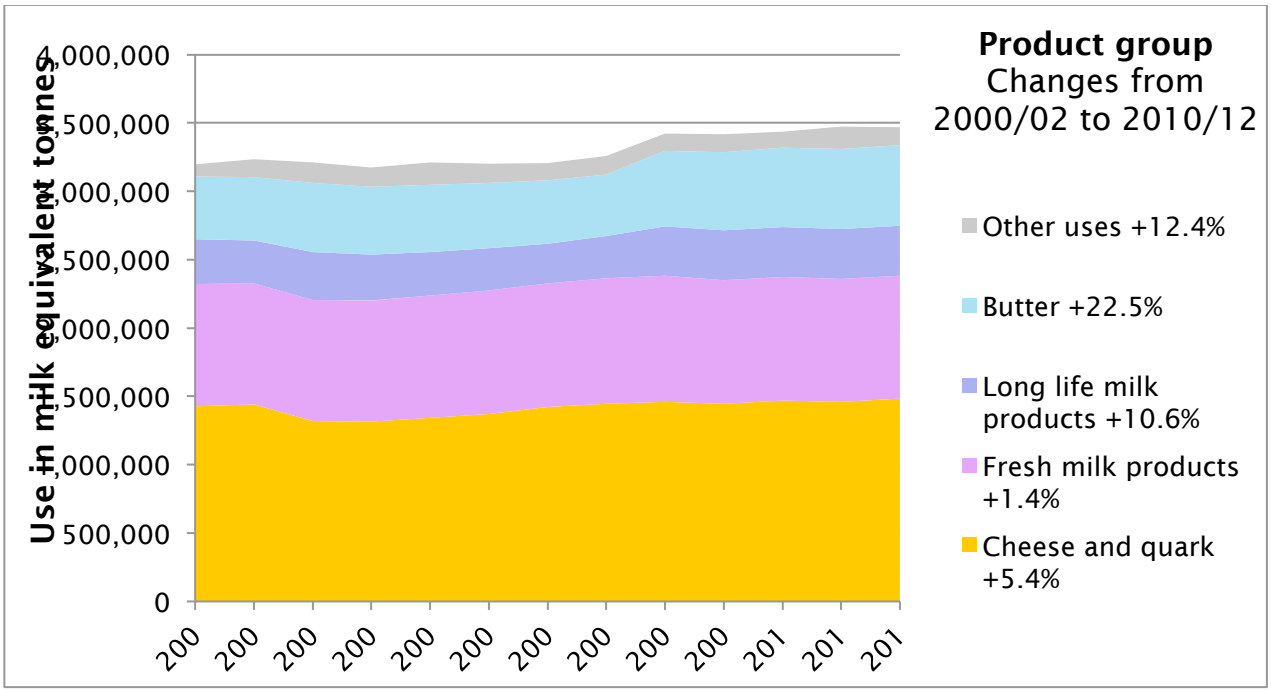

Figure 10: Milk produced in Switzerland and its use

It is worth having a closer look at the cheese market, which underwent a liberalisation process with the EU during the observation period. Between 1999 and 2011, the export of Emmentaler has almost halved, while exports of Gruyere cheese could be increased by 35% (Flury et al. 2013). Overall cheese exports went up by 15% between 2000/02 and 2010/12. Nonetheless, exports of the most important type of cheese for export, i.e. hard cheese (to which Emmentaler and Gruyere cheese belong), dropped by 10%; semi-hard cheese exports more than doubled and exports of fresh cheese started (cf. TSM 2011, 2013). In other words, cheese rich in content was partially replaced by cheese of less rich content. As in the course of the liberalisation of the cheese market cheese imports into Switzerland also increased, the trade balance of cheese decreased (Flury et al., 2014), i.e. imports increased more than exports. Flury et al. (2014, p. 53) conclude that since 1999, the competitiveness of the Swiss cheese sector has slightly declined. Although structural changes in the production and processing sector lead to cost reductions, in comparison to other European countries they are still higher.

In parallel, market concentration in the processing sector further increased. The four largest dairy processors increased their processed milk volumes by 38% between 2003 and 2012, while their share in the total milk quantity processed in Switzerland augmented from 44% to 56%[46]. However, the development of the dairy industry's competitiveness is difficult to assess and is contorted in terms of product groups due to the overvaluation of milk fat compared to international standards (see chapter 5.2.1). It is also a known fact that overcapacity exists, at least in the field of milk powder production – restructuring measures and a concentration in fewer production sites are thus to be expected.

[46] Calculation on the basis of Flury et al. (2014) and Emmi (2013).

6. Conclusions and recommendations

6.1. Evaluation of the process during the quota abolition

Most of the measures for stabilising the market or for the implementation of a supply management system under private law, which had been proposed in the context of the quota abolition, were not or only partially implemented. In such cases, it is merely possible to analyse theoretical or assumed effects as well as the reasons why they failed, but not their actual effectiveness. However, it is of course possible to assess the abolition of milk quotas itself.

6.1.1. Understanding the failure of regulation measures

At the moment of the decision on the abolition of milk quotas, a supply management system under private law as a follow-up solution seemed possible. It cannot be evaluated to which extent declarations of the government in that respect (cf. chapter 3.1) had mainly as an aim to reassure possible critics. However, it can be concluded that according to the interpretation later on, supporting measures by the government seemed to be possible only to a very limited extent. Producers' expectations for a long-term and sustainable legislative solution were disappointed.

The possibility of making self-help measures (Art. 9 of the agriculture law, LwG) generally binding is explicitly out of question based on the current interpretation in relation to structural problems. With this justification, all measures with a regulating effect can be excluded, especially those targeting additional volumes produced after the quota abolition. It is with this volume increase in particular that the increase of competitiveness is to be achieved. In that sense, from a liberalisation point of view, limitations set to those increasing their production destroy the success of the quota abolition. This point of view has gained wide acceptance within the government.

At the very moment of the transition towards the quota abolition, there was a particular market situation, like it would be needed for a declaration of general applicability by the government. Nonetheless, the market situation of 2007/2008 later appeared to be only a temporary price peak, which had only interrupted but not reversed a long-term trend of falling prices. At the moment of the early exit, there was not enough pressure on the sector for it to decide on common self-help measures – rather on the contrary. Neither did the government use the room for manoeuvre, which would have enabled to slow down the volume increase. A substantial part of additional volumes date back from this period and it is not possible to regulate those quantities retroactively. The problem is indeed structural. On the one hand, investments are made in bigger barns and milking units, which cannot be taken back; on the other hand, many milk producers are overburdened by the fast changes and feel threatened in their very existence. The interests of both groups concerning a regulation of milk supply are not reconcilable, as was shown by the difficulties in the search for a solution for the sector.

6.1.2. Evaluation of the quota abolition

The aim of this chapter is to evaluate the result of the milk quota abolition. This evaluation mainly consists in analysing whether the main objective of this liberalisation phase has been reached, i.e. an increase of competitiveness in the Swiss dairy sector. An evaluation is also made of regional consequences and of the overall effectiveness of the liberalised domestic milk market.

For milk producers, the quota abolition has lead to a faster increase of productivity per unit area, which indicates an increased competitiveness. However, the competitiveness of the

dairy sector depends on the whole of the value chain. The latter is not only dependent on price competitiveness – which the quota abolition eventually aims at (bigger structures enable economies of scale and thus lower costs) –, but also on the quality of products, i.e. differentiating features for which consumers are willing to pay. In this sense there is a findamental difference between products such as milk powder or butter, which are sold on the the world market, and cheese with a name, an origin and its own character. Milk powder and butter as raw materials for processed food are highly generic and thus interchangeable. Apart from the price there are very few options for differentiation. In other words, the rather expensive milk as a raw material compared to other countries is necessarily a disadvantage for this subsector. For cheese this is not the case, as milk as a raw material can be used as a marketing argument which justifies a higher price of the end product.

With respect to dairy processing, the following conclusions can thus be drawn: generally speaking, the quantity increase was considerably smaller compared to estimations of Lehmann et al. (2001), i.e. 8 % instead of 14 %. In other words, the price drop was greater. Eelasticity of demand was thus much smaller than expected. This can have several reasons:

- Certain cheese types, especially Emmentaler, currently undergo a crisis; a recovery is not yet on the horizon. This crisis is not connected to the milk quota abolition, but it increases the pressure on the market even further. In the past years, the sector has been putting efforts into compensating considerable losses of market shares in the export market for hard and firm cheese.
- Diversification as well as product and market development require a lot of time and resources, especially when they are aimed at export markets. According to Lehmann et al. (2001, p. 21), processing companies mentioned according ideas as possible strategies for growth. They possibly underestimated the resources this requires.
- The quantity increase transformed Switzerland's general deficit in milk fat into a surplus – the resulting butter volumes can only be exported taking into account heavy losses.
- The unexpected appreciation of the Swiss franc lowers Swiss companies' competitiveness.

The allocation of additional volumes between the different product groups is unfavourable to producers. As a matter of fact, the increase mainly concerns products for which it is not possible to reach higher milk prices on an international level (such as butter and long-life dairy products, in particular milk powder) – even if a higher price would be justified due to product quality or animal welfare aspects. Even if the cheese sector showed some major achievements, the development of the dairy processing sector stayed far below expectations.

With respect to regional consequences of the quota abolition, the following conclusion can be drawn: the relocation of milk production from mountain regions to valleys, as forecasted by model calculations of Lehmann et al. (2001), did not occur. Nonetheless, it can be concluded (cf. chapter 5.2.2) that the structural changes which took place after 2006 had considerably less positive effects on productivity in mountain regions than in hilly or valley regions. The differences between mountains and valleys thus have increased even further. The reason why this does not have stronger consequences on the income situation is due to the income stabilising effect of direct payments, which are higher in higher altitudes than in lower ones. In mountain areas, the share of direct payments in the overall performance of a farm is higher than the share of milk sales – this is not the case in hilly or valley regions (cf. basic report of the Swiss Farm Accountancy Data Network: Grundlagenbericht der Zentralen Auswertung, Hoop & Schmid 2013). Without these differences in the calculation of public

subsidies, regional differences following the consequences of the quota abolition would have been more severe.

To which extent the dairy market is really free after the abolition of quotas also raises some questions. Given the high degree of concentration at the processing and retail levels, one can assume that the concerned companies exercise market power, at least at a regional level and for specific products. At the level of milk trade, a certain asymmetry regarding information is highly probable. The lack of transparency on the market makes it possible that insider knowledge and relationships from before the liberalisation are still used. On the processing level of the Swiss market, the overvaluation of milk fat compared to milk protein is a sign for this tendency. In this sense, the planned economy from the period before 1993 still has some consequences. Many elements of this market failure have effects that are unfavourable to milk producers who are dependent on the actors of downstream levels.

6.2. Recommendations concerning the quota abolition in the EU

This chapter offers a summary of conclusions to be drawn from the quota abolition in Switzerland, which are also important in the context of the abolition of milk quotas in the EU. They concern specific characteristics of the dairy market in general as well as the liberalisation phase of the quota abolition in particular.

Concerning the dairy market the following statements apply:

1) **Value chains:** it is in the interest of the dairy sector – and thus also of consumers – not to only focus on competitively priced (generic) mass products. In the case of quality products and specialities, a good cooperation across the different levels of the value chain is valuable. The quota abolition will / should not affect good partnerships. For quality products, competition does not take place so much at the price (and cost) level, but rather at the level of a good end product, for which consumers are willing to pay a higher price.

2) **Market power:** the power balance in the dairy sector is to the disadvantage of producers (and consumers). As single companies have a strong position in some regions, they have the ability to play off producer groups against each other. This asymmetrical distribution of power reveals the existence of market failures. A means to correct this situation are sector-wide standard contracts. However, to which extent they benefit producers is dependent on their content. The dairy industry does not only have a size-related advantage, but also an information advantage, which dairies will use during contract negotiations.

3) **Overcapacity in the processing sector:** the expectations of the processing sector regarding the abolition of quotas in Switzerland were high. The same currently applies to the EU. This leads to investments in facilities, which for financial reasons will need to run to capacity. In this context, overcapacity issues are to be expected, which could result in a high competition for milk. Milk producers thereby are at risk to become puppets of the large corporations. When capacity issues are dealt with at processors' level, it leads to plant closures. Given the size of the companies, serious consequences are to be expected in affected regions.

4) **Conflicts of interest among producers:** as far as producers are concerned, we must be aware that different interests are at stake, which very much limits joint actions. The case of Switzerland has shown that it is wishful thinking to expect strong solidarity among milk producers. This concerns above all the implementation of limitations to entrepreneurial freedom based on private law agreements. Structural problems

cannot be solved on the basis of private law. However, in order to even out the impact of market fluctuations – a normal phenomenon in milk production –, producers as a collective have a higher chance to find common solutions. Measures in this direction, as for instance the creation of a common fund, serve as some kind of insurance. In the best case scenario, for such a solution a majority might be found among producers.

The experience in Switzerland has shown that defending the producers' interests with the government's help is difficult, and that the particularities of the dairy market, as described above, are to the disadvantage of producers. However, the quota abolition also implies other risks, which do not only concern milk producers and therefore deserve wider consideration:

- **Quality:** The aim of the abolition of quotas is to increase efficiency through the production of higher quantities. But apart from focussing on lowering costs, one should not forget the importance of quality. In particular in value chains where international pressure on costs is high, it is crucial to fight for minimum standards in the field of quality and food safety, as well as for socially acceptable working conditions and animal protection standards. This is also to the advantage of processing companies and it is a matter of public interest.
- **Regions:** The abolition of quotas leads to increased competition among producers. This is an important objective of this liberalisation phase, as due to the competition, milk will be produced in regions where costs are the lowest. But in contradiction to this there are regional interests: if milk production disappears entirely from some regions, the cultural heritage connected to milk production and processing will be lost. Depending on agricultural possibilities, production will be shifted to other sectors or, alternatively, agriculture is abandoned. This can lead to depopulation of the affected regions or in remote areas to forestation. On the long term this is not efficient. Given the global food situation, Europe should put efforts into maintaining its agricultural land and its production capacity, including in less favourable areas. This justifies the preservation of milk production also in less competitive regions. In Europe, the model of multifunctional agriculture prevails – price competition can thus not be the only objective. Despite everything, milk production will thus most probably stay on the agenda of agricultural policy, also in the future.
- **Single farm approach instead of sectoral approach:** When speaking about the advantages of liberalisation, the arguments mentioned usually follow a global economic or a sectoral approach. In this way, it can be established that at least for the economy as a whole, positive effects are to be expected. But there will always be winners and losers. A single farm approach can help to illustrate the problems that potential losers will be facing. This can concern several of the above-mentioned issues. Higher costs are also justified from a macroeconomic point of view if they are linked to performances requested by citizens or consumers. These also include the needs of future generations.

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Annexes

(The following annexes in German have been stored on a CD-ROM.)

Annex 1: Botschaft zur Weiterentwicklung der Agrarpolitik (Agrarpolitik 2007)

Annex 2: Auszüge aus den Wortprotokollen der parlamentarischen Verhandlungen: 02.046 Agrarpolitik 2007. Weiterentwicklung

Annex 3: Entwurf zur Änderung des Bundesgesetzes über die Landwirtschaft, Bundesblatt Nr. 29 vom 23. Juli 2002

Annex 4: Bundesgesetz über die Landwirtschaft, Änderung vom 20. Juni 2003

Annex 5: Bundesgesetz über die Landwirtschaft, Änderung vom 11. Dezember 2007

Annex 6: Motion Aebi (09.3759) – Landwirtschaftsgesetz. Allgemeinverbindlichkeit für privatrechtliche Mengensteuerung

Annex 7: Motion Aebi (10.3472) – Milchmengensteuerung für marktgerechte Milchmengen

Annex 8: Auszüge aus den Wortprotokollen der parlamentarischen Verhandlungen: 10.3472 Motion Aebi Andreas. Milchmengensteuerung für marktgerechte Milchmengen

Annex 9: Medienmitteilungen der Schweizer Milchproduzenten SMP, Jahre 2010-13

Annex 10: Medienmitteilungen der Branchenorganisation Milch BO Milch, Jahre 2010-14