Analysis of the EU volume reduction programme 2016/17

Andrea Fink-Keßler

PhD and CEO of “Büro für Agrar- und Regionalentwicklung” / Die Landforscher

Aurélie Trouvé

PhD and lecturer in Economics, AgroParisTech

Study for the European Milk Board (EMB)

Kassel, November 2017

Contents

Summary

In a context of newly deregulated markets, the price for milk in Europe has fallen considerably since 2014, while at the same time there has been a strong increase in European milk production, especially in some member states (Ireland, the Netherlands etc.). The EU Commission took various measures in response to the fall in prices: opening up public storage for skimmed milk powder (SMP), butter and cheese, support for private storage and emergency subsidies. Nevertheless, the measures were not sufficient to let milk prices recover. In July 2016, the decision was then taken to implement a European reduction programme, with direct subsidies for farmers who reduced their production, i.e. 14 cents per litre of undelivered milk over a period of three months compared to the same period in the previous year. Moreover, member states could increase this aid for reducing milk deliveries (as in France, with additional aid of 10 cents/kg within a 5% reduction limit compared to the reference period to avoid an extensive, permanent decrease in the dairy herd), or for not increasing production (Germany).

A total of € 111.6 million was paid out. This voluntary measure was a great success and was implemented in 27 of the 28 EU member states. The programme was taken up very quickly, from October 2016 to January 2017. This was especially the case in the major member states that produce and export milk: Germany, France and the UK, followed by the Netherlands, showed the highest participation in terms of reduced volumes, whereas Ireland had the highest proportionate reduction. As a result of the large number of applications in the first phase of the reduction programme, during which the total volume of available EU funds had almost been fully subscribed, combined with a lack of further funds, only 48,200 European milk producers actually had access to this aid, i.e. just around 3% of all European dairy farms. The volume reduction covered by this aid amounted to 833,551 tonnes.

Following a long period of growth, European milk deliveries began to decrease in June 2016 and then fell significantly below the previous year's level during the reduction period. The farm-gate milk price started to recover in July 2016 (average EU milk price € 25.68/100 kg in July 2016), just after the decision to launch this reduction programme, with the recovery accelerating further during the reduction programme (€ 33.43/100 kg in January 2017). The prices for SMP, butter and cheese started to increase mid-2016, confirming the experience already gained with the first major milk crisis of 2009: comparatively small shifts in volumes can have a big impact on prices. Even though not all price effects can be attributed to the reduction programme, it helped to support and maintain the development that began in July 2016. Finally, this programme made it possible to give direct financial aid to farms in a period of real difficulties, thus sustaining a number of dairy farms at this time.

1. Development of the milk crisis 2014-2017 and political steps

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

- Strict regulation of the agricultural market from the end of the 1960s: guaranteed prices at processing level (SMP, butter and cheese) and public storage (butter and powder), export subsidies, variable protection at the borders. Regulating the market in this way caused a notable increase in production that exceeded the demand of the European market, leading to an explosion in Common Agricultural Policy (CAP) expenditure. In this context, dairy quotas were introduced in 1984, i.e. administrative control of production, acknowledging the risk of overproduction.
- Rapid recent deregulation of the dairy markets, with a reduction in the intervention price level from 2004 and compensation by means of direct aid, followed by a progressive increase in milk quotas from 2006/2007 to 2013/2014, until they were abolished permanently on 31 March 2015.

In this context, the new high volatility in world market prices had an increasingly direct impact on domestic prices. These growing concerns triggered several European initiatives: a group of high-level experts (GHN) was set up in 2010; the "Milk Package" was adopted in 2012, aiming among others to reinforce the position of milk producers in the value chain. The new single Common Market Organisation (CMO) Regulation was adopted in 2013, and finally a Milk Market Observatory was launched by the European Commission in 2014. However, the situation has been aggravated by a further drop in the price of dairy products since 2014 together with the Russian embargo on agricultural produce, so that major institutions have highlighted the vulnerability of the dairy sector (particularly in 2015, with two reports from the European Committee of the Regions and the European Parliament), and the need to introduce new market regulation measures. These measures are described below.

1.1 Public intervention

After the milk crisis 2008/2009, public intervention for skimmed milk powder (SMP) was suspended. It was not until July 2015 that the first public storage purchases were made at an intervention price of € 1,698/tonne.[1]

Based on the new Common Market Organisation (CMO) adopted in 2013, public intervention is subject to strict rules. Between 1 March and 30 September each year, private operators can offer a maximum quantity of 109,000 tonnes SMP and 50,000 tonnes butter complying with specific quality requirements for public storage. The public intervention prices are € 1,698/tonne for skimmed milk powder, € 2,217.50/tonne for butter, for a producer milk price equivalent to € 220/tonne[2]. Once these volumes are reached, intervention continues by tender until the end of the intervention period.

[1] Intervention Report Dairy 2015, European Commission;
https://www.clal.it/en/?section=magazzino_smp_confronto

[2] According to estimations from French dairy inter-branch organisation (CNIEL)

This intervention period can be extended under exceptional circumstances. Faced with falling dairy product prices, the Commission decided to extend the activation period for public intervention beyond March-September for 2015 and 2016 (Regulation No. 2015/1549 of 17 September 2015)[3]. Furthermore, falling milk prices in 2015 and to an even greater extent in 2016 meant that the ceiling for public intervention (109,000 tonnes SMP) was almost exceeded in March 2016[4]. The Commission therefore doubled the volume to 218,000 tonnes SMP and raised the ceiling for public intervention for butter from 50,000 to 100,000 tonnes (Regulation No. 2016/591 of 15 April 2016)[5].

As early as May 2016, the upper limit of 218,000 tonnes of SMP had already been exceeded and an additional 78,525 tonnes of SMP had been purchased via the tender procedure, so that the total stock of SMP amounted to 296,525 tonnes. In Regulation No. 2016/1042 of 24 June 2016[6], the Commission again raised the maximum public storage limit for SMP to 350,000 tonnes.

Although milk prices recovered in the course of 2017, another 30,000 tonnes were stored until September 2017, with currently (October 2017) around 380,000 tonnes of skimmed milk powder or the equivalent of 2,508,000 tonnes.[7]

Activating public intervention in this way and the double increase in the intervention ceilings (see 1.1) has undoubtedly taken milk off the market, even though this mainly refers to skimmed milk powder. From when the intervention began in July 2015 until July 2016, 167.436 million tonnes of milk had been delivered to dairies in the EU-28 (see Table 5). Converted into milk equivalents, around 2.26% of this volume was "withdrawn from the market" as SMP.[8]

Extending the public intervention was not able to stop the drop in prices: from March 2016 to July 2016 alone, milk producer prices fell from € 28.35/100 kg to € 25.68/100 kg (see Table 6). At best, it was able to slow down the price decline.

Table 1: Evolution of SMP stocks 2015 to 2017 in EU-28 in tonnes

	2015		2016		2017	
	Public	**Total**	**Public**	**Total**	**Public**	**Total**
January	0	16,547	46,740	81,696	350,159	412,279
February	0	16,350	70,020	107,034	350,158	418,050
March	0	15,571	102,764	138,565	350,158	408,612
April	0	14,274	151,648	183,675	352,394	403,416
May	0	14,671	225,394	259,151	357,496	395,115

[3] http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R1549&from=EN

[4] https://ec.europa.eu/agriculture/sites/agriculture/files/market-observatory/milk/pdf/eu-stocks-butter-smp_en.pdf

[5] http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0591&from=EN

[6] http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R1042&from=EN

[7] https://www.clal.it/en/?section=magazzino_smp_confronto

[8] Data from Milk Market Observatory, Conversion SMP/kg into milk equivalents: 1:6.6

June	0	17,632	292,353	331,577	357,466	385,815
July	702	24,174	328,673	381,083	357,359	375,422
August	6,358	30,485	352,935	417,754	357,545	369,310
September	17,237	43,547	355,173	430,269	362,847	369,048
October	22,150	49,832	352,947	427,725		
November	23,054	51,679	351,874	425,049		
December	29,074	62,009	351,029	416,982		
Source: MMO EU historical stock series / HIS.REP.Stoc download on 7/11/2017[9]						

1.2 Private storage

The private storage subsidy consists of a contribution from the CAP towards financing the costs of temporary storage of these products by private firms, for a minimum of 90 days and a maximum of 210 days. The subsidy can only be activated in exceptional market circumstances for butter, quality cheeses and skimmed milk powder. Following the Russian embargo, private storage aid was activated in September 2014 for SMP[10], butter[11] and certain cheeses[12]. Storage of around 17,000 tonnes of milk powder (for a period of max. 210 days) was subsidised in 2014, more than 40,000 tonnes in 2015 and in 2016[13]. Storage of more than 22,000 tonnes[14] of butter was subsidised in 2014 and more than 140,000 tonnes in 2015[15]. Storage of nearly 31,000 [16]tonnes of cheese was subsidised in 2015.

1.3 Emergency subsidies

In November/December 2014, the Commission provided specific financial aid for the Baltic states[17] and Finland[18] to support dairy farmers who were encountering liquidity problems as a result of the

9 https://ec.europa.eu/agriculture/sites/agriculture/files/market-observatory/milk/pdf/eu-historical-stocks-series.pdf

[10] http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0948&from=EN

[11] http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0947&from=EN

[12] http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0950&from=EN

[13] https://ec.europa.eu/agriculture/sites/agriculture/files/market-observatory/milk/pdf/eu-stocks-butter-smp_en.pdf

[14] Intervention Report Dairy 2014

[15] Intervention Report Dairy 2015

[16] Intervention Report Dairy 2015

[17] http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R1263&from=EN

[18] http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R1370&from=EN

Russian embargo (€ 6.9 million for Estonia, € 7.7 million for Latvia, € 14.1 million for Lithuania and € 10.7 million for Finland).

Following the Council of Ministers meetings on 7 and 15 September 2015, € 420 million were granted directly to the member states, with the possibility of equivalent national complementary measures to support the sectors for beef and veal, milk products, pig meat, sheep meat and goat meat (Regulation (EU) No. 2015/1853 of 15 October 2015)[19].

In March 2016, the Commission activated a second € 500-million aid package with exceptional measures to further support European farmers in crisis[20]. The dairy, pig meat and fruit and vegetable sectors were the main focus of this support package.

1.4 Authorisations for exceptional milk production planning

Under the second aid package, in April 2016, the Commission authorised producer organisations, inter-branch organisations and co-operatives in the dairy sector to conclude voluntary joint agreements on milk production planning for a period of six months (EU Regulations No. 2016/558[21] and 2016/559[22]). This period was extended until April 2017 as part of the EU support for voluntary cuts in milk production[23].

2. EU support for voluntary cuts in milk production

A voluntary incentive scheme was officially announced by the EU in July 2016 and adopted in September 2016 for the temporary reduction of European milk collection in order to reduce the imbalance between supply and demand (Commission Delegated Regulation (EU) No. 2016/1612)[24]. Funds amounting to € 150 million were made available to finance a subsidy of 14 cents per litre of undelivered milk over a period of three months compared to the same period in the previous year. A second budget allocation (€ 350 million) was distributed between the countries in proportion to their production. This gave member states the possibility of combining various complementary measures to increase aid for cutting production or to support extensive farming systems, small producers, co-operation projects and also to help the meat sector (cf. next section on the national arrangements in France and Germany).

[19] http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R1853&from=en

[20] http://europa.eu/rapid/press-release_IP-16-806_en.htm

[21] http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0558&from=EN

[22] http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0559&from=EN

[23] http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R1615&from=EN

[24] http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R1612&from=EN

Initially, four volume reduction periods were scheduled:

(i) October to December 2016 (deadline for aid applications: 21 September)

(ii) November 2016 to January 2017 (deadline: 12 October)

(iii) December 2016 to February 2017 (deadline: 9 November)

(iv) January to March 2017 (deadline: 7 December).

Nevertheless, the aid scheme had to stop once the € 150 million package was used up. In the end, the package was consumed as early as the second period, with a "stabiliser" applied to the volumes (each farmer received aid for only one part of the reduced volumes).

A few criteria had to be met: this European aid was only available for producers who delivered cow's milk in 2016. The reduced volume of aid must not exceed 50% of the previous year's volume (over the period concerned). This volume had to be at least 1.5 tonne per beneficiary. The aid was ultimately reduced if the farmer's commitment was only partially met:

- by 20% (at 11.5 ct/l) if the actual decrease in milk collection was between 50% and 80% of the commitment;
- 50% (at 7.2 ct/l) between 20% and 50%;
- 100% below 20%.

2.1 National arrangements

Most of the EU member states (including the biggest producers, Germany and France, and big exporters such as the Netherlands) chose a national production reduction[25] or chose not to increase production:

- Austria, Belgium, France, Finland, the Netherlands: additional aid for reducing milk production[26]
- Germany, Czech Republic, Estonia, Spain, Hungary, Lithuania, Latvia, Malta, Portugal, Slovenia: additional aid for not increasing production[27].

France

It was also possible for the member states to provide additional exceptional assistance. In France, this aid was 10 ct/kg within the limit of a 5% reduction in production compared to the reference period. So in France, farmers could benefit from aid totalling 24 cents per kg not delivered, up to a

[25] Article 2 of Regulation (EU) No. 2016/1613: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R1613&from=EN

[26] Austria: production reduction in January to March 2017 (+ special scheme for Alpine milk); Belgium: production reduction October to December 2016; France: production reduction in October 2016 to January 2017; Finland: production reduction January to May 2017, Netherlands: dairy herd termination or reduction

[27] https://ec.europa.eu/agriculture/sites/agriculture/files/milk/policy-instruments/milk-targeted-aid_en.pdf

maximum of 5% of the reduced milk collection volume compared to the previous year. Beyond that, the aid was only 14 ct/kg. This 5% ceiling was set by France (both per farm and per herd) to avoid an extensive, permanent decrease in the dairy herd which would further destabilise the beef market[28].

Germany

Germany also implemented an additional scheme (based on EU Regulation No. 2016/1613): the "Milk Special Aid Regulation[29]" on 27 December 2016, a 100% top-up payment to the EU funds. In contrast to the EU reduction programme, financial aid was given for not increasing the milk volume during a defined period.

In detail: milk producers received a one-off subsidy of 36 cents per kilogramme of milk for the annual milk volume (delivered between 1 December 2015 and 30 November 2016). They only received this financial aid if they did not increase their milk volume between 1 February 2017 and 30 April 2017 compared with the same three-month period of the previous year (February 2016 to April 2016).

2.2 Results of the programme

European overview

This voluntary measure was a great success; it was activated in 27 of the 28 EU member states (only Greece, a small producer of cow's milk and a net importer, did not activate the scheme).

The EU provided € 150 million for the programme. However, in the end only € 111.6 million were paid out[30]. 1.021 million tonnes of milk had been declared and approved by the EU, but in actual fact the quantity of milk was reduced by only 833,551 tonnes, which is 18.4% less than the quantity applied for.

In terms of volume, Germany was the country with the highest reduction: 232,300 tonnes of milk, followed by France with 152,732 tonnes and 90,814 tonnes in the United Kingdom. Together, these three countries, which are also the EU's three biggest producers of milk, account for 57% of the reduction. The EU's fourth milk producer is the Netherlands, which subsidised 56,117 tonnes of reduction. The biggest producers were clearly the primary users of this programme.

The funds made available by the EU had already been exhausted to a large extent by the first round of applications, so on 21 September the reduction scheme was almost fully subscribed (98.8%) with 1,059,232 tonnes of milk reduction of the available quantity of 1,071,428 tonnes.[31] For the second round of applications, only about 12,200 tonnes of milk were available. In fact, the reduction programme was therefore only implemented during the first two application phases:

---

[28] http://agriculture.gouv.fr/stephane-le-foll-presente-les-mesures-nationales-de-maitrise-de-la-production-laitiere

[29] https://www.ble.de/SharedDocs/Downloads/DE/Marktorganisation/Sondermassnahmen/MerkblattMilch.html

[30] https://ec.europa.eu/agriculture/sites/agriculture/files/milk/policy-instruments/final-uptake_en.pdf

[31] https://ec.europa.eu/agriculture/sites/agriculture/files/milk/policy-instruments/r-2016-1612-art-3-notification_en.pdf

(i) October to December 2016 (deadline for aid applications: 21 September)

(ii) November 2016 to January 2017 (deadline: 12 October).

The additional national programmes followed this period. For example, in Germany the national programme was implemented from 1 February to 30 April 2016 (see Section 2.1).

Approximately 48,200 European milk producers had access to aid, i.e. just around 3% of all European farms with dairy cows (see Table 4). However, since the data on the number of dairy farms dated back to 2013 with no current EU data available from 2016, the share of participating dairy farms must be significantly higher.[32] The reduced volume covered by this aid refers to 833,551 tonnes, or 1.68% of total collection over the same period of the previous year (October 2015 to January 2016 / 49,474,340 tonnes, see Table 2 and Table 3). The country with the highest percentage reduction was Ireland (see Table 3): with about 50,000 tonnes, the Irish dairy farmers reduced 4% of their milk delivery compared to the previous four-month period 2015/2016. Bulgaria comes in second place with more than 3% reduction. Although the Netherlands reduced its milk collection by more than 56,000 tonnes, its reduction rate is only about 1.2%. The reduction rate is even lower in another large milk-producing country, Poland at 1%.

On average, the reduction aid related to 17 tonnes of milk per farm (from 5 tonnes in Austria to 97 in Hungary). It can be assumed that the measure was largely used as part of a temporary reduction in activity.

France

In France, the total volume reduction achieved by the EU milk production reduction programme was 152,732 tonnes; 12,737 farms applied for the programme, with an average reduction of 12 tonnes per farm (half of the reduction in Germany). The average subsidy per farm was € 1,643. 26% of the applicants came from France. France accounted for 18% of the EU's reduction in the volume of cow's milk deliveries.

Germany

In Germany, the total volume reduction achieved by the EU milk production reduction programme was 232,300 tonnes; 9,405 farmers applied for the programme (see Table 1). 19.5% of the applicants came from Germany, i.e. Germany accounted for 27.9% of the EU's reduction in the volume of cow's milk deliveries. The average reduction per farm was 24.7 tonnes, the average subsidy per farm € 3,382. Unfortunately, no data are available for the subsequent special scheme (*Milchsonderbeihilfe*).

[32] If we assume a decline in dairy farms of 10 per cent on average (equivalent to the decline in dairy farms in Germany from 2013 to 2016), then the share is 4%.

Table 2: Aid for milk production reduction: volumes, number of beneficiaries, amounts per state[33]

Last update: 31.07.2017

Aid for milk production reduction - *Final notification*

(Reg. 2016/1612 Art. 7 - ISAMM form 689)

	(a)(i) Number of eligible applicants a	(a)(ii) Actual total volume of cow milk delivery reduction covered by the aid applications *tonnes* b	(a)(iii) Actual total volume of cow milk delivery reduction covered by the applications for payment *tonnes* c	(b) Aggregated Union aid amount to be paid *EURO* d
Belgium	1 712	35 438	28 085	3 823 611
Bulgaria	234	5 399	4 648	639 231
Czech Republic	197	9 152	9 130	1 194 049
Denmark	366	30 956	24 260	3 129 594
Germany	9 405	291 187	232 300	31 814 088
Estonia	46	4 983	4 223	572 047
Ireland	3 858	64 154	50 022	6 636 553
Greece	-	-	-	-
Spain	1 449	31 310	30 096	3 347 415
France	12 737	187 948	152 732	20 932 010
Croatia	102	3 322	2 952	425 867
Italy	841	19 623	17 315	2 322 752
Cyprus	1	12	12	1 680
Latvia	511	6 857	5 231	704 535
Lithuania	1 948	11 676	10 546	1 431 035
Luxembourg	101	2 081	1 605	212 797
Hungary	126	10 133	12 275	1 177 574
Malta	2	45	45	6 360
Netherlands	3 793	78 927	56 117	7 151 185
Austria	3 084	20 133	14 287	1 844 181
Poland	3 409	50 371	37 753	5 158 645
Portugal	998	15 556	15 507	2 069 751
Romania	73	2 459	2 101	290 536
Slovenia	123	1 146	769	107 659
Slovakia	41	4 416	3 939	536 467
Finland	983	14 209	10 693	1 436 745
Sweden	467	20 383	16 095	2 253 370
United Kingdom	1 584	99 122	90 814	12 404 258
EU-28	**48 191**	**1 021 000**	**833 551**	**111 623 992**

[33] Regulation No. 2016/1612 – Art. 7 – iSAMM form 689), last update 31/07/2017; https://ec.europa.eu/agriculture/sites/agriculture/files/milk/policy-instruments/final-uptake_en.pdf

Table 3: Volume of cow's milk delivery reduction covered by the EU programme			
	Volume of cow's milk delivery to dairies in previous period (10/2015 - 01/2016)	Volume of cow's milk delivery reduction covered by EU reduction programme (10/2016 - 01/2017)	
	In 1,000 tonnes	In 1,000 tonnes	%
European Union (28 member states)	**49,474,340**	**833,551**	**1.68%**
Belgium	1,357,060	28,085	2.07%
Bulgaria	153,970	4,648	3.02%
Czech Republic	846,820	9,130	1.08%
Denmark	1,775,300	24,260	1.37%
Germany	10,583,490	232,300	2.19%
Estonia	238,400	4,223	1.77%
Ireland	1,249,380	50,022	4.00%
Greece	200,600		
Spain	2,253,260	30,096	1.34%
France	8,530,230	152,732	1.79%
Croatia	164,010	2,952	1.80%
Italy	3,443,960	17,315	0.50%
Cyprus	58,230	0,012	0.02%
Latvia	254,350	5,231	2.06%
Lithuania	442,840	10,546	2.38%
Luxembourg	116,850	1,605	1.37%
Hungary	502,550	12,275	2.44%
Malta	13,830	0,045	0.33%
Netherlands	4,664,700	56,117	1.20%
Austria	1,029,820	14,287	1.39%
Poland	3,558,950	37,753	1.06%
Portugal	605,900	15,507	2.56%
Romania	282,050	2,101	0.74%
Slovenia	185,080	0,769	0.42%
Slovakia	276,210	3,939	1.43%
Finland	784,290	10,693	1.36%
Sweden	957,150	16,095	1.68%
United Kingdom	4,945,060	90,814	1.84%
Source: Own calculations based on Eurostat (Cow's milk collection and products obtained – monthly data [apro_mk_colm]) update on 2.10.2017			

Table 4: Applicants for EU reduction programme			
	Number of dairy farms 2013	**Applicants for reduction scheme 2016**	%
Belgium	9,040	1,712	19%
Bulgaria	61,470	234	0%
Czech Republic	3,430	197	6%
Denmark	3,680	366	10%
Germany	78,830	9,405	12%
Estonia	2,530	46	2%
Ireland	18,150	3,858	21%
Greece	6,060		
Spain	23,530	1,449	6%
France	92,540	12,737	14%
Croatia	30,150	102	0%
Italy	39,600	841	2%
Cyprus	190	1	1%
Latvia	23,640	511	2%
Lithuania	64,970	1,948	3%
Luxembourg	730	101	14%
Hungary	9,510	126	1%
Malta	130	2	2%
Netherlands	18,670	3,793	20%
Austria	42,180	3,084	7%
Poland	334,500	3,409	1%
Portugal	7,770	998	13%
Romania	561,840	73	0%
Slovenia	9,770	123	1%
Slovakia	6,200	41	1%
Finland	9,610	983	10%
Sweden	4,670	467	10%
United Kingdom	21,300	1,584	7%
European Union EU-28	**1,484,690**	**48,191**	**3%**

Source: Eurostat (dairy cows: number of farms and heads and fodder crops by agricultural size of farm (UAA) and size of dairy herd [ef_lscow], own calculations and final notification “Aid for milk production reduction”, 31/07/2017, see Table 2

3. Development of the milk market: impacts of the EU reduction programme

3.1 European overview

Table 5: Cow's milk delivery to dairies (* 1,000 t) – monthly – in EU-28 from 2014 to 2017

	2014	2015	Compared to previous year (2015:2014) as a %	2016	Compared to previous year (2016:2015) as a %	2017	Compared to previous year (2016:2017) as a %
Jan	12,158.31	12,044.48	-0.94	12,691.21	5.37	12,425.75	-2.09
Feb	11,328.11	11,164.52	-1.44	12,263.78	9.85	11,708.37	-4.53
Mar	12,922.79	12,743.12	-1.39	13,474.28	5.74	13,503.30	0.22
April	13,106.95	13,294.74	1.43	13,524.67	1.73	13,621.81	0.72
May	13,617.40	14,014.71	2.92	14,184.86	1.21	14,199.87	0.11
June	12,908.29	13,400.52	3.81	13,178.76	-1.65	13,413.80	1.78
July	12,899.51	13,248.40	2.70	13,060.66	-1.42	13,413.29	2.70
Aug	12,499.74	12,844.84	2.76	12,634.23	-1.64	13,027.44	3.11
Sept	11,959.46	12,181.29	1.85	11,858.19	-2.65		
Oct	11,844.24	12,442.55	5.05	11,981.77	-3.70		
Nov	11,324.06	11,875.51	4.87	11,440.31	-3.66		
Dec	11,849.28	12,465.08	5.20	12,102.70	-2.91		
Total	**148,418.14**	**151,719.76**	**2.22**	**152,395.42**	**0.44**		
	Period of EU reduction programme						
	Months with declining volume of milk delivered to dairies						

Source: Eurostat/apro-mk_colm (Cow's milk collection and products obtained – monthly data [apro_mk_colm]), download on 1/10/2017

Monthly milk delivery volumes in the EU rose steadily (see Table 5) to reach 151.7 million tonnes of milk in 2015 (plus 3,301 tonnes or +2.2% compared to 2014). By May 2016, despite the fall in prices, delivery volumes were even higher in the period from October 2015 to March 2016 compared to the previous year (February 2016 vs. February 2015: +9.85%!). From June 2016 onwards, the delivery volumes saw an initially moderate decline (- 1.65% in June, - 1.42% in July etc.) and then fell significantly below the previous year's level during the reduction period without, however, returning to the level of 2014. By contrast, in 2016 the total delivery volume increased again by 0.44% compared with the previous year's level in 2015.

In the period from June 2016 (beginning of declining milk deliveries) to February 2017, the quantities delivered fell month after month below the level of the corresponding month of the previous year. In the reduction period, the volume delivered dropped by 1,524 tonnes (-3.1%). In fact, during the

reduction period, the quantities delivered to the dairies decreased far more than the official reduction quantities of 833,551 tonnes.

Table 6: Development of milk farm-gate price in €/100 kg in EU-28 from 2014 – 2017

	2014	2015	Compared to previous year as a %	2016	Compared to previous year as a %	Compared to previous month as a %	2017	Compared to previous year as a %	Compared to previous month as a %
Jan	40.18	31.87	-20.68	29.65	-6.97	-3.10	33.43	12.75	1.12
Feb	40.10	31.99	-20.22	29.04	-9.22	-2.06	33.38	14.94	-0.15
Mar	39.44	31.69	-19.65	28.35	-10.54	-2.38	33.12	16.83	-0.78
April	38.39	31.45	-18.08	27.36	-13.00	-3.49	33.17	21.24	0.15
May	37.73	30.73	-18.55	26.22	-14.68	-4.17	32.97	25.74	-0.60
June	37.64	30.14	-19.93	25.71	-14.70	-1.95	*33.12	28.82	0.45
July	37.03	29.92	-19.20	25.68	-14.17	-0.12	*34.16	33.02	3.14
Aug	36.95	29.86	-19.19	26.43	-11.49	2.92	*35.50	34.32	3.92
Sept	36.49	30.10	-17.51	27.82	-7.57	5.26	*35.82	28.76	0.90
Oct	35.40	30.74	-13.16	29.93	-2.64	7.58			
Nov	34.49	30.94	-10.29	31.84	2.91	6.38			
Dec	33.26	30.60	-8.00	33.06	8.04	3.83			
	Period of EU reduction programme								
	Months of positive development in milk farm-gate price								

Source: Regulation (EU) No. 2017/1185 Article 12 (a) Annex II.4, last update on 6/9/2017, download on 15/9/2017 – see also Milk Market Observatory
* Data taken from last update on 6/11/2017 as data in the update on 6/9/2017 ended in June 2017

Average EU milk producer prices (see Table 6) reached their lowest point in July 2016 at 25.68 cents per kilogramme and then slowly began to rise again. During the reduction phase – from November 2016 onwards – they exceeded the previous year's level (+2.8% to 33.43 ct/kg in January 2017).

After the end of the reduction programme from February 2017, producer prices settled at a level of around 33 cents per kilogramme. In July 2017, the price started to rise to an average of 35.82 cents per kilogramme in September 2017.

Product market price developments (see Tables 7 to 9) follow a similar pattern: prices dropped until May 2016 followed by a slow recovery (based on the previous year's level).

- Skimmed milk powder prices fell sharply at the end of 2014 and then, above all, in the course of 2015. They reached their lowest point in March 2016 at € 164 per 100 kilogrammes. It was not until August that the price for skimmed milk powder (SMP) slowly returned to the previous year's level, without reaching the level of 2014. During the reduction phase, prices

reached the level of 2014 – when the SMP price was already falling. After the reduction phase in February 2017, the SMP price fell again, but was still well above the previous year's level. Under the pressure of 380,000 tonnes SMP in storage, the price failed to recover. As of 15 October 2017, the SMP price reached a preliminary low of € 162/100 kg and was thus below the intervention price of € 169.8/100 kg (in Germany the price has even plummeted to € 155/100 kg!).[34]

Table 7: EU market prices for SMP in €/100 kg

Month	2014	2015	Compared to previous year as a %	2016	Compared to previous year as a %	Compared to previous month as a %	2017	Compared to previous year as a %	Compared to previous month as a%
Jan	327	189	-42.20	168	-11.11	-2.33	209	24.40	1.46
Feb	331	213	-35.65	165	-22.54	-1.79	198	20.00	-5.26
Mar	322	212	-34.16	164	-22.64	-0.61	183	11.59	-7.58
April	306	200	-34.64	165	-17.50	0.61	177	7.27	-3.28
May	287	187	-34.84	165	-11.76	0.00	184	11.52	3.95
June	288	181	-37.15	170	-6.08	3.03	194	14.12	5.43
July	285	175	-38.60	171	-2.29	0.59	183	7.02	-5.67
Aug	253	170	-32.81	178	4.71	4.09	176	-1.12	-3.83
Sept	220	174	-20.91	193	10.92	8.43	168	-12.95	-4.55
Oct	206	180	-12.62	201	11.67	4.15			
Nov	196	176	-10.20	200	13.64	-0.50			
Dec	189	172	-8.99	206	19.77	3.00			
	Period of EU reduction programme								
	Months of positive development in SMP price								

Source: Regulation (EU) No. 2017/1185 Article 12 (a) Annex II.4, last update on 6/9/2017, download on 15/9/2017 – see also Milk Market Observatory. EU market prices for dairy products, https://ec.europa.eu/agriculture/sites/agriculture/files/markets-and-prices/price-monitoring/market-prices-dairy-products_en.pdf

[34] Source: Milk Market Observatory, https://ec.europa.eu/agriculture/sites/agriculture/files/market-observatory/milk/pdf/eu-dairy-commodity-prices_en.pdf. There is little interest in purchasing SMP (180 tonnes have been sold since sales began). Meanwhile, the EU Commission is openly considering lowering the price of SMP to € 1,440/t.

- By contrast, the price for butter (see Table 8) saw a particularly marked development in 2016 and 2017 with a strong upward trend. Firstly, butter prices fell steadily in 2014 and reached their lowest point in April 2016 at a level of € 254/100 kg. During the reduction programme, butter prices recovered and not only surpassed the previous year's level, but also exceeded the € 400-threshold/100 kg and finally rose even further after the end of the reduction programme. In September 2017, butter prices finally reached € 645/100 kg (the intervention price for butter is € 221.75/100 kg). This situation is partly linked to minor growth in the consumption of milk fat in some countries (USA, South Asia), leading to a strong increase in butter prices.
- The prices for Edam cheese (see Table 9) also fell in the years 2014 and 2015 from a level of € 382 per 100 kg in January 2014 to € 215 in May 2016, recovering only slowly during the reduction phase to € 326 in January 2017 and were thus between 19% and 26% above the previous year's level. After the end of the reduction programme, prices fell again and then slowly recovered from May 2017 onwards to return to the level of spring 2014.

Table 8: EU market prices for butter in €/100 kg

	2014	2015	Compared to previous year as a %	2016	Compared to previous year as a %	Compared to previous month as a %	2017	Compared to previous year as a %	Compared to previous month as a %
Jan	401	293	-26.93	285	-2.73	-3.72	424	48.77	-0.47
Feb	372	318	-14.52	271	-14.78	-4.91	416	53.51	-1.89
March	368	328	-10.87	261	-20.43	-3.69	416	59.39	0.00
April	358	315	-12.01	254	-19.37	-2.68	423	66.54	1.68
May	350	304	-13.14	258	-15.13	1.57	464	79.84	9.69
June	350	304	-13.14	282	-7.24	9.30	515	82.62	10.99
July	354	296	-16.38	302	2.03	7.09	575	90.40	11.65
Aug	335	285	-14.93	333	16.84	10.26	610	83.18	6.09
Sept	309	287	-7.12	377	31.36	13.21	645	71.09	5.74
Oct	307	298	-2.93	404	35.57	7.16			
Nov	305	301	-1.31	416	38.21	2.97			
Dec	293	296	1.02	426	43.92	2.40			

Period of EU reduction programme

Months of positive development in the price for butter

Source: Regulation (EU) No. 2017/1185 Article 12 (a) Annex II.4, last update on 6/9/2017, download on 15/9/2017 – see also Milk Market Observatory https://ec.europa.eu/agriculture/sites/agriculture/files/markets-and-prices/price-monitoring/market-prices-dairy-products_en.pdf

Table 9: EU market prices for Edam cheese in €/100 kg									
	2014	2015	Compared to previous year as a %	2016	Compared to previous year as a %	Compared to previous month as a %	2017	Compared to previous year as a %	Compared to previous month as a %
Jan	382	269	-29.58	240	-10.78	-4.38	326	35.83	-2.10
Feb	379	268	-29.29	227	-15.30	-5.42	320	40.97	-1.84
March	368	276	-25.00	221	-19.93	-2.64	313	41.63	-2.19
April	354	281	-20.62	217	-22.78	-1.81	309	42.40	-1.28
May	331	268	-19.03	215	-19.78	-0.92	312	45.12	0.97
June	321	253	-21.18	225	-11.07	4.65	325	44.44	4.17
July	326	245	-24.85	245	0.00	8.89	340	38.78	4.62
Aug	332	244	-26.51	269	10.25	9.80	348	29.37	2.35
Sept	318	242	-23.90	288	19.01	7.06	349	21.18	0.29
Oct	304	248	-18.42	309	24.60	7.29			
Nov	286	252	-11.89	329	30.56	6.47			
Dec	279	251	-10.04	333	32.67	1.22			
	Period of EU reduction programme								
	Months of positive development in the price for cheese/Edam								
Source: Regulation (EU) No. 2017/1185 Article 12 (a) Annex II.4, last update on 6/9/2017, download on 15/9/2017 – see also Milk Market Observatory https://ec.europa.eu/agriculture/sites/agriculture/files/markets-and-prices/price-monitoring/market-prices-dairy-products_en.pdf									

3.2 France

France saw relatively little increase in milk collection compared to other major producing and exporting countries such as the Netherlands and Germany – in recent years: 22.84[35] million tonnes of milk deliveries in 2009, 23.99 million tonnes in 2013, 24.45 million tonnes in 2016, which is an increase of just 1.9% from 2013 to 2016. Nevertheless, the milk volume increased continuously after the quota was abolished in April 2015 (apart from very slight drops in July and August 2015).

The following tables show that the drop in collection (Table 10) and the increase in prices (Table 11) occurred from March 2016 onwards, six months before the reduction programme was implemented. However, the prices increased sharply in September 2016, just before the reduction programme was implemented. Similarly, the decline in collection slowed down as early as March 2017, just after the end of the programme for reducing production. It can therefore be assumed that this scheme may

[35] Source: Eurostat, cow's milk collection and products obtained – annual data (apro_mk_cola)

have had an impact on the volume reduction decisions made by producers, although of course it is difficult to say to what extent these decisions were influenced by the aid programme and to what extent other factors were involved.

Even before the production reduction scheme was implemented, there had been a rather pronounced seasonal drop in French milk production which had led to a reduction in spring and summer collection (-1.7% from March to August 2016). Moreover, a simulation tool used by IDELE (*Institut de l'Elevage* - French Livestock Institute), "Anticip' lait", already predicted a 3% drop in collection (compared to 2015) from September to December 2016.

Table 10: France: Delivery of cow's milk to dairies – monthly – in 1,000 tonnes

	2014	2015	Compared to previous year (2014:2015) as a %	2016	Compared to previous year (2015:2016) as a %	2017	Compared to previous year (2016:2017) as a %
Jan	2,232.74	2,202.11	-1.37	2,238.34	1.65	2,122.60	-5.17
Feb	2,055.54	2,006.00	-2.41	2,099.46	4.66	1,960.41	-6.62
March	2,315.85	2,243.93	-3.11	2,225.95	-0.80	2,208.72	-0.77
April	2,285.80	2,263.40	-0.98	2,234.50	-1.28	2,221.48	-0.58
May	2,284.95	2,300.44	0.68	2,284.81	-0.68	2,223.93	-2.66
June	2,083.36	2,125.91	2.04	2,044.58	-3.83	2,014.59	-1.47
July	2,032.05	2,030.89	-0.06	2,005.68	-1.24	1,970.63	-1.75
Aug	1,972.41	1,972.15	-0.01	1,924.19	-2.43	1,937.16	0.67
Sept	1,910.75	1,938.19	1.44	1,809.07	-6.66		
Oct	2,005.27	2,067.03	3.08	1,916.02	-7.31		
Nov	1,991.97	2,034.02	2.11	1,880.12	-7.57		
Dec	2,137.82	2,190.84	2.48	2,053.47	-6.27		
Total	**25,308.51**	**25,374.91**	**0.26**	**24,716.19**	**-2.67**		

Period of EU reduction programme

Month/year with reduced milk volumes compared to previous year

Source: Regulation (EU) No. 2017/1185 Article 12 (a) Annex II.4, last update on 6/9/2017, download on 15/9/2017 – see also Milk Market Observatory

Finally, there was a drop of 5% to 7.5% (depending on the month) in French milk deliveries over the period from September 2016 to February 2017. Over the October-January period of the production reduction scheme, this represents a total decrease of 558,020 tonnes – and a further decrease of 302,020 tonnes of milk compared to the expected decrease of 3% (256,000 tonnes). However, the aid payments for the reduced milk volume related to 153,000 tonnes of milk. It can therefore be

assumed that the aid for reducing production was used as a lever to reduce milk volumes, which ultimately went well beyond the subsidised volumes.

In September 2016, the IDELE highlighted that there were beneficiaries who probably had already decided to reduce their milk delivery and for whom the reduction aid had a windfall effect: (i) those in the process of converting to "organic" farming suffering from yield reductions during the transition phase, (ii) those who decided to stop milk production in the second half of the year (if they delivered milk in July), (iii) those facing difficulties with obtaining fodder (heavy rain in spring 2016, prolonged summer drought), (iv) those having to reduce autumn and winter deliveries to meet their annual contractual volume.

However, it appears that many of the aid beneficiaries made unplanned reductions in production volumes, since the level of aid was close to the price paid (farm-gate price of € 300/tonne and B price for butter/powder still below € 240/tonne in September 2016[36]), and savings are possible especially in inputs (animal feed in particular).

Table 11: Development of milk farm-gate price in €/100 kg – France from 2014 to 2017

	2014	2015	Compared to previous year as a %	2016	Compared to previous year as a %	Compared to previous month as a %	2017	Compared to previous year as a %	Compared to previous month as a %
Jan	39.82	32.92	-17.33	30.43	-7.56	-4.13	34.23	12.49	4.61
Feb	39.34	32.63	-17.06	30.10	-7.75	-1.08	33.26	10.50	-2.83
March	37.48	31.38	-16.28	29.99	-4.43	-0.37	32.61	8.74	-1.95
April	35.34	31.16	-11.83	29.39	-5.68	-2.00	33.61	14.36	3.07
May	35.20	31.09	-11.68	28.78	-7.43	-2.08	32.43	12.68	-3.51
June	36.91	31.53	-14.58	28.68	-9.04	-0.35	32.32	12.69	-0.34
July	37.96	32.18	-15.23	28.51	-11.40	-0.59	34.04	19.40	5.32
Aug	39.10	33.77	-13.63	29.41	-12.91	3.16	34.98	18.94	2.76
Sept	39.58	33.78	-14.65	30.20	-10.60	2.69	35.57	17.78	1.69
Oct	37.04	32.99	-10.93	31.59	-4.24	4.60			
Nov	35.68	32.27	-9.56	32.35	0.25	2.41			
Dec	34.58	31.74	-8.21	32.72	3.09	1.14			
	Period of EU reduction programme and French national programme								
	Month/year with increased milk prices compared to previous year and month								

Source: Regulation (EU) No. 2017/1185 Article 12 (a) Annex II.4, last update on 6/9/2017, download on 15/9/2017 – see also Milk Market Observatory

[36] Source: IDELE (French Livestock Institute)

Finally, between 2014 and 2016, producers partly increased their production because of the low prices in order to cover their investment costs. However, this increase in production itself put downward pressure on the monthly prices paid to producers, which continued to fall until August 2016 (compared with the previous year). Thus, higher production and lower prices were offsetting one another. A reversal of the trend was only observed after the summer 2016, just before the production reduction scheme was implemented. The aid can therefore be assumed to have triggered this trend reversal.

3.3 Germany

Table 12 shows the continuously increasing volume of milk in Germany from April 2015, initiated by the pending phase-out of milk quotas: in 2009, dairy farmers delivered 28.2 million tonnes of milk to the dairies. By the end of 2015, after abolition of the quotas, they already delivered 31.88 million tonnes. In 2016, the deliveries to dairies reached a volume of 31.97 million tonnes. Compared to 2013, the milk volume increased by about 1.67 million tonnes or +5.5% from 2013 to 2016. This accounted for 15% of volume growth in the EU (total 11,147,950 tonnes from 2013 to 2016)[37]. Only the Netherlands had a larger share of the volume growth (19.6% or 2.11 million tonnes).[38] A larger part of this extra volume was sold at low prices on the internal EU market (cheese, fresh milk and yoghurt)[39], while whey powder and skimmed milk powder were the main exports to third-country markets (and also fresh milk).

Table 12: Delivery of milk to dairies – monthly – in Germany from 2014 to 2017 (* 1,000 t)

	2014	2015	Compared to previous year (2015:2014) as a %	2016	Compared to previous year (2016:2015) as a %	2017	Compared to previous year (2017:2016) as a %
Jan	2,635.42	2,610.59	-0.94	2,761.56	5.78	2,648.83	-4.08
Feb	2,429.43	2,382.99	-1.91	2,632.66	10.48	2,447.83	-7.02
March	2,733.14	2,681.30	-1.90	2,824.40	5.34	2,758.71	-2.33
April	2,701.49	2,714.73	0.49	2,778.90	2.36	2,691.10	-3.16
May	2,795.54	2,854.94	2.12	2,885.64	1.08	2,816.82	-2.38
June	2,684.44	2,751.41	2.49	2,715.75	-1.30	2,707.20	-0.31
July	2,722.29	2,775.50	1.95	2,749.41	-0.94	2,738.02	-0.41
Aug	2,663.58	2,718.89	2.08	2,670.34	-1.79	2,693.79	0.88

[37] Cow's milk collection and products obtained - monthly data [apro_mk_colm], download on 15/9/2017

[38] Source: Regulation (EU) No. 2017/1185 Article 12 (a) Annex II. 4, last update on 6/9/2017, download on 15/9/2017 – see also milk Market Observatory

[39] K. Jürgens and O. Poppinga: Milch Markt Review 2017. Study for MEG Milch Board, Germany

Sept	2,506.18	2,566.83	2.42	2,489.27	-3.02		
Oct	2,536.02	2,601.04	2.56	2,504.32	-3.72		
Nov	2,427.52	2,522.71	3.92	2,392.04	-5.18		
Dec	2,540.23	2,698.18	6.22	2,568.44	-4.81		
Total	**31,375.28**	**31,879.11**		**31,972.73**			
	Period of EU reduction programme						
	Period of German national one-off subsidy (*Milchsonderbeihilfe*)						
	Month with reduced milk volumes compared to previous year and month						
Source: Regulation (EU) No. 2017/1185 Article 12 (a) Annex II.4, last update on 6/9/2017, download on 15/9/2017 – see also Milk Market Observatory							

After peaking in January 2014, farm-gate prices started to fall and hit a first low in August 2015 (Table 13). To compensate for the falling prices, farmers increased the volume of milk produced: by 6.22% in December 2015 compared to December 2014, by 5.78% in January 2016 and by 10.48% in February 2016 (see Table 12).

Table 13 shows the development in farm-gate prices during these three periods (in €/100 kg). The price crisis reached a climax (€ 23.18/100 kg) in June 2016. One month later, the EU Commission officially announced the second EU aid package, which included the voluntary milk reduction scheme. The previous increase in delivered milk came to an end already in June 2016 (compared to the previous year 2015). During the first period and second period of the EU voluntary milk reduction programme, the monthly reduction of volume ranged from 3.72% to 5.18% (see Table 12). The price recovery therefore began in July 2016 (+1.02% compared to previous month, see Table 13).

Is the recovery of farm-gate prices in Germany a result of the EU reduction programme? In Germany, the total volume reduction in the context of the EU reduction scheme (EU Regulation No. 2016/1612) was 232,300 tonnes, with applications from 12% of the dairy farms.[40] Furthermore, 25% of the dairy farms did not increase their production from 1 February 2017 to 30 April 2017 on account of the additional German programme (*Milchsonderbeihilfeprogramm*). In fact, milk deliveries to dairies in February 2017 were 7% less than in February 2016.

[40] Reg. No. 2016/1612 – Art. 7 – iSAMM form 689. Last update on 31/07/2017; https://ec.europa.eu/agriculture/sites/agriculture/files/milk/policy-instruments/final-uptake_en.pdf

If we take the number of dairy farms in May 2016 (see Table 14), 13.2% of the dairy farmers participated in the reduction scheme.

Table 13: Development in farm-gate milk price – monthly – in Germany (€/100kg) 2014 to 2017									
	2014	**2015**	**Compared to previous year (2015: 2014) as a %**	**2016**	**Compared to previous year (2016:2015) as a %**	**Compared to previous month as a %**	**2017**	**Compared to previous year (2017:2016) as a %**	**Compared to previous month as a %**
Jan	41.26	30.89	-25.13	28.92	-6.38	-2.79	34.13	18.02	1.37
Feb	40.94	30.82	-24.72	28.13	-8.73	-2.81	33.97	20.76	-0.47
March	40.55	30.73	-24.22	27.31	-11.13	-3.00	33.56	22.89	-1.21
April	39.72	30.75	-22.58	25.74	-16.29	-6.10	33.49	30.11	-0.21
May	38.87	29.80	-23.33	23.97	-19.56	-7.38	33.83	41.13	1.02
June	37.97	28.83	-24.07	23.18	-19.60	-3.41	34.38	48.32	1.63
July	37.18	27.94	-24.85	23.42	-16.18	1.02	35.89	53.25	4.39
Aug	37.09	27.77	-25.13	24.30	-12.50	3.62	37.44	54.07	4.32
Sept	36.44	28.38	-22.12	26.37	-7.08	7.85	39.39	49.37	5.21
Oct	35.14	29.43	-16.25	30.42	3.36	13.31			
Nov	33.99	29.81	-12.30	33.14	11.17	8.21			
Dec	32.48	29.75	-8.41	33.67	13.18	1.57			
	Period of reduction programme								
	Period of German national one-off aid (*Milchsonderbeihilfe*)								
	Month with increased milk farm-gate price compared to previous year and month								
Source: Regulation (EU) No. 2017/1185 Article 12 (a) Annex II.4, last update on 6/9/2017, download on 15/9/2017 – see also milk Market Observatory									

During the first and second application rounds (October 2016 to January 2017), German dairy farms delivered 10.11 million tonnes of milk to the dairies, 469,860 tonnes less than during the reference period (October 2015 to January 2016). The reduction in milk volume exceeded the 232,300 tonnes stipulated by the EU reduction programme by a factor of nearly two, with a total reduction of 4.44% compared to the reference period October 2015-January 2016! The volume reduction under the EU reduction scheme was 2.2%.

Since the price of organic milk was not affected by the price drop for conventional milk, it is interesting to look at the data for the quantities of conventional milk delivered to German dairies. The reduction in volume is considerably higher than shown in EU data for German delivery volumes: in the period from October 2016 to January 2017, deliveries were 515,149 tonnes below the previous year's level, i.e. almost 2.2 times the volume covered by the reduction programme.[41]

[41] See Annex 1, data BLE 2017 and 2018: Kuhmilchlieferungen der Erzeuger an deutsche milchwirtschaftliche Unternehmen

Table 14: Development of dairy herds and dairy farms in Germany – Nov 2014 to May 2017				
	Cows	Dairy farms	Compared to previous livestock census	
			Cows	Dairy farms
Nov 2014	4,295,680	76,469		
May 2015	4,286,651	74,762	-0.2%	-2.3%
Nov 2015	4,284,639	73,255	-0.04%	-2.0%
May 2016	4,272,126	71,302	-0.3%	-2.7%
Nov 2016	4,217,700	69,175	-1.3%	-3.0%
May 2017	4,214,349	67,319	-0.1%	-2.7%
Source: Destatis, Fachserie 3 Reihe 4.1 diverse Jahrgänge				

It is difficult to anticipate linear effects on the recovery of milk prices. Nor is there any calculation model that can reliably say what would have happened if the reduction programme had not been initiated. But it is a fact that in Germany, milk deliveries in June 2016 were already lower than in the previous year and prices began to rise from July onwards. Therefore, there is obviously a clear correlation between a slight change in the quantity of milk delivered and an increase in prices.

In addition to the reduction programme, various developments were happening in this context:

- Dairy farmers decided to stop producing milk: between May 2016 and November 2016, 2,127 farms quitted dairy farming in Germany (see Table 14). From May 2016 to May 2017, the number of dairy farms fell by 3,983. The annual reduction rate for dairy farms was about 4% in previous years, but accelerated to 5.6% from May 2016 to May 2017.[42]
- A decline in the number of dairy farms does not necessarily mean reduced milk production. Quite a number of farms extended their milk production during the crisis to compensate for falling incomes. The number of cows was therefore stable during the first period of the milk crisis. It only started to decrease in early 2017. From November 2015 to May 2017, the number of cows in Germany decreased by 70,290 or 1.6%.
- To a certain extent, the reduction in milk delivery could also be the result of difficulties with obtaining fodder (heavy rain in spring and drought in summer 2016). As in France, the weather conditions caused an additional reduction in milk production.

[42] Destatis, Fachserie 3 Reihe 4.1 Viehbestand Mai 2017

4. Conclusions

Many member states had already seen an increase in milk production before the quota was abolished. Germany was mainly responsible for this increase, together with Ireland, Poland and the Netherlands. In 2014, the milk price began to fall. The EU Commission introduced various measures in response to the fall in prices: opening up public storage for SMP, butter and cheese, support for private storage, and finally emergency measures.

The quantities of milk delivered had already fallen from June 2016 onwards. The farm-gate milk price started to recover in July 2016 just after the decision to implement the production reduction scheme, and continued to increase further during the reduction programme. Prices have increased since then. Compared to the previous year, the acceleration started in November 2016 (+ 2.9%). In August 2017, prices were 34% higher compared to the previous year. The markets for SMP, butter and cheese followed this dynamic trend: prices slumped until May 2016 (just before the volume reduction programme was announced by the EC, probably caused by anticipatory behaviour on the part of the industries affected[43]) and then slowly recovered. The average prices for butter and skimmed milk powder also show this same dynamic.

In addition to the reduction in the quantity of delivered milk, 351,000 tonnes of skimmed milk powder were put in storage (up to the end of 2016), which is equivalent to 2,316,600 tonnes of milk. On the other hand, this new "SMP mountain" puts considerable pressure on prices, as it can now only be sold below the intervention price level. Furthermore, there seem to be no buyers.

834,000 tons of milk had not been delivered due to the EU-reduction programme – and this surely took pressure from the market. Nevertheless, there is no reliable procedure for giving a scenario of what could have been, what would have happened if the reduction programme had not been implemented. And perhaps all the factors that have led to this reversal of the price trend have also played a major role.

The fact is, however, that a small reduction in the delivery volume was observed at the same time as a large effect on prices. This correlation cannot be denied and confirms the experience already gained with the first major milk crisis of 2009: comparatively small changes in volumes can have a big impact on prices.

Even though not all price effects can be attributed to the reduction programme, it has helped to support and maintain the development that began in July 2016. This kind of instrument has also proven effective (as in France) in helping to keep farms in production by means of a small reduction (5%) with fewer windfall effects than in those countries which had not set such targets (Germany). Finally, this scheme made it possible to give direct aid to farms in a period of real difficulties (more than € 1,600/farm[44] in France, for example), which certainly helped to sustain some dairy farms.

[43] Courleux C., D'Ivangin M., 2016, « Aide pour la réduction de la production laitière : La Belgique et l'Irlande arrivent en tête », Momagri, http://www.momagri.org/FR/articles/Aide-pour-la-reduction-de-la-production-laitiere-La-Belgique-et-l-Irlande-arrivent-en-tete_1822.html

[44] Source: Aid for milk production reduction: volumes, number of beneficiaries, amounts per state (Table 2)

Annex

Table A1: Deliveries of milk to German dairies (without organic milk) in kilogrammes of milk.
BLE 2017: Kuhmilchlieferungen der Erzeuger an deutsche milchwirtschaftlicher Unternehmen

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
2015	2,551,756	2,329,509	2,620,193	2,608,416	2,739,623	2,642,353	2,666,322	2,612,169	2,465,386	2,498,447	2,424,379	2,592,075	30,750,629
2016	2,642,628	2,519,270	2,701,081	2,654,138	2,750,859	2,591,178	2,623,442	2,547,127	2,374,230	2,388,806	2,281,993	2,448,498	30,523,251
2017	2,523,083												
	+ 3.6	*+ 8.1*	*+ 3.1*	*+ 1.8*	*+ 0.4*	*- 1.9*	*- 1.6*	*- 2.5*	*- 3.7*	*- 4.4*	*- 5.9*	***- 5.5***	*- 0.7*