EUROPEAN UNION

Committee of the Regions

Smooth Phasing-out of the Milk Quotas in the EU

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1. Executive Summary

This note focuses on a review of the main aspects to be considered while assessing the territorial impact of the phasing-out of the milk quotas. The debate is on whether milk quota expiry in April 2015 will provoke divergent developments of milk production across EU regions, hence accelerating territorial differences as a consequence of an asymmetric impact.

Across Member States (MS), there is no common definition of disadvantaged areas in relation to milk production. Usually, geographical and biophysical criteria apply to identify constrained regions. However, socio-economic aspects also impact the ability to cope with a more market-oriented milk production regime prone to price volatility. In our overview of the various attributes that may, jointly or individually, make a region 'disadvantaged', we distinguish four broad categories: geographical (remoteness; insularity; mountainous), natural (climate, water or soil handicaps; steep slopes and high altitude), structural (sparsely-populated; ageing; infrastructure handicap), and economic (fragility; fragmentation). Outlining these attributes may serve for the drawing of a typology. The assumption is that different types of disadvantaged milk producing regions require a targeted approach to address the implications of milk quota abolition. A common framework for the recognition of disadvantaged areas would also improve policy impact assessment and allow comparability across countries.

The European Commission (EC) is rather optimistic about the smooth phasing-out of the milk quota system. The EU milk market experiences a favourable situation in terms of milk deliveries, with the outlook being also positive. Milk production is below quota ceilings in most MS and, overall, it is projected to remain such also in the last quota year 2014-2015. On the other hand, factors external to the Union have driven price volatility and the EU market share is expected to suffer from an increasing world competition. While it is too early to see the effects of the Milk Package on disadvantaged regions, the EC, also subsequent to the concerns voiced by the European Parliament and the Committee of the Regions, recognises that situations and developments look quite heterogeneous across countries and hence targeted approaches are required. This conclusion and the fact that there will be regional gainers and losers in terms of milk production are supported by evidence provided by *ad hoc* commissioned studies. However, the last external analysis, published in 2013, concludes that the territorial impact of milk quota abolition *per se* will be limited, and that less-favoured regions face a wider set of constraints and challenges, such as the underlying structural change in dairying and the lack of competitiveness of the dairy sector and processors. Indeed, the abolition of the

milk quota regime gives rise to different views on its potential implications with respect to a number of issues, such as the level of accuracy of projections, the type of regional responses, the potential market prospects, the environmental effects, or the role that policy may have in offsetting natural constraints. Likewise, milk production projections and experts' assessments provide different information on the effects that the abolition of the quota system may have on milk production at country level. A tentative 'consensus view' indicates that milk production is likely to expand in AT, BE, DE, DK, IE, LU, NL, and PL. Instead, production is likely to contract in BG, CZ, EL, FI, HR, HU, SE, SK, and RO. In the rest of the MS, the impact on milk production is either uncertain or non-existent. However, in some countries such as FR, IT or the UK, regional variation is very high and the average change may conceal divergent production trends at the territorial level.

Support to the EU Rural Development Policy is through the European Agricultural Fund for Rural Development (EAFRD). The submission and approval of the new national and regional rural development programmes is on-going and transitional provisions apply up to the end of 2014. Hence, the allocation of funds to the various instruments and measures in the programmes is still unknown. The financial envelope for Pillar Two also remains undefined because further information on the transfers decided by each country between the two Pillars of the CAP is not yet available.

EAFRD provides for a range of relevant instruments and measures to support milk producers located in disadvantaged regions. These include thematic sub-programmes, which may focus on country-specific needs, the LEADER approach for community-led local development, and financing instruments such as guarantee funds, credit funds, interest-rate subsidies, refundable advances, revolving funds, or venture capital funds. Among the measures, particularly important for the enhancement of both the viability and the competitiveness of the small-scale milk producers, is the support for participation to quality schemes, for investments in physical assets, and for farm / business / rural areas development. The strengthening of dairy chain connectivity – which is a key element of the Milk Package – goes through the support for the establishment of producer groups and organisations as well as for co-operation activities. EAFRD also provides for compensation allowances (related to agri-environment-climate / organic farming / animal welfare commitments, or further to the location of producers in Natura 2000 areas or areas of natural or other specific constraints). Finally, the income stabilisation tool and the financial support payable to farmers suffering from losses due to either natural hazards or market crisis are meant for the management of crisis situations in general and price volatility in particular. Overall, EAFRD provisions are considered sufficiently suited. Nevertheless, their implementation may be limited by, for example, the

ineffective use of the tools, the inappropriate selection of financing instruments, or the lack of suitable reaching out strategies.

2. Defining the disadvantaged milk producing regions

Specific concerns on the abolition of the milk quotas relate to fragile or most vulnerable areas where milk production is constrained by various circumstances. Regulation (EU) No 1308/2013 on a common organisation of the markets (CMO) in agricultural products envisages the regular assessment of market developments, '*assessing in particular the effects on milk producers and milk production in disadvantaged regions'* (Article 225). Nonetheless, this monitoring exercise is not supported by a common definition across the EU of regions that are disadvantaged in relation to milk production. This evidently limits the scope of the assessment and biases the comparability across MS due to the different criteria applied at country level.

The 2014 EC Report on the evolution of the market situation (COM(2014)354) outlines that MS use different terms when referring to a disadvantaged milk producing region or different criteria to characterise it. Mountain areas, less-favoured areas (LFA) in general or affected by specific handicaps (related to, for example, soil or climate), areas in danger of abandonment, and outermost regions are commonly considered as 'disadvantaged'. Further considered criteria include remoteness, being an island, or being fragmented. Finally, some MS refer to input and output variables to characterise a disadvantaged region, such as high production costs and low milk yields.

The European Parliament (EP), in its resolution of 11 December 2013 on maintaining milk production after the expiry of the milk quota, refers to mountain areas, outermost regions, less-favoured regions and disadvantaged areas. However, the latter are also not defined, the general reference being to Articles 174(3) and 349 of the Treaty on the Functioning of the European Union (TFEU), none of which specifies the nature of 'disadvantaged regions' for milk production.

Within Regulation (EU) No 1305/2013 on support for rural development by the EAFRD, areas facing natural and other specific constraints include: mountain areas; areas, other than mountain areas, facing significant natural constraints; and other areas affected by specific constraints. Natural constraints are defined in terms of biophysical criteria (climate, soil and terrain) while 'specific constraints' are essentially left undefined as long as they are concomitant to the need to keep the target area managed for preservation, conservation or enhancement purposes.

Table 1 reports a proposal to rationalise the various attributes that may, jointly or individually, make a region disadvantaged with respect to milk production, in particular when a more market-oriented milk production regime prone to price volatility will be in place. These attributes may be used for the drawing of a typology on the assumption that different types of disadvantaged milk producing regions will require a targeted approach to address the implications of milk quota abolition. Socio-economic aspects are added to the commonly used geographical and biophysical criteria. Attributes are grouped into four broad categories: geographical, natural, structural, and economic. The term 'region' is used to indicate a territory or area, while each attribute is defined as far as possible with reference to existing definitions. All identified attributes impact to various degrees on production costs and/or milk yields.

Table 1: Attributes potentially causing comparative disadvantages for milk production

Cat.	Attribute	Definition	Remarks
Geographical (Source: Eurostat 'Regional typologies overview')	Remoteness	It is assessed in terms of share of residents being able to drive to the centre of a city of at least 50,000 inhabitants within 45 minutes. If less than half of the residents of a predominantly rural or intermediate NUTS3 region can reach a city of at least 50,000, the region is considered to be remote.	Regions in this category are affected by poor connectivity which negatively impacts on production costs (and hence income or profit margins) and the dairy supply chain in general (processing, distribution, trade).
	Insularity	An 'island' is a territory with a minimum surface of 1 km², a minimum distance between the island and the mainland of 1 km, more than 50 resident inhabitants and no structural connection (e.g. bridge) with the mainland. Island regions are NUTS3 regions entirely covered by islands as defined above.	These geographical attributes usually characterise 'outermost regions' as they are '*compounded by their remoteness, insularity, small size, difficult topography and climate, economic dependence on a few products*' (TFEU, Article 349).
	Mountainous	Mountain regions at NUTS3 level have more than 50% of their surface covered by topographic mountain areas (i.e. above 2500 m or below that but with specific slope and/or localised and relevant contrast in topography) or have more than 50% of the regional population living in these topographic mountain areas.	According to Regulation (EU) No 1305/2013 on support for rural development by the EAFRD, areas north of the 62nd parallel and certain adjacent areas shall be considered to be mountain areas.

Cat.	Attribute	Definition	Remarks
Natural	Climate, water or soil handicaps	Regions which are prone to extreme climate conditions (e.g. temperature, precipitation), have limited availability of water resources, or are characterised by poor or shallow soils.	Natural disadvantages often imply a short crop season and adverse effects on forage growth due to drought, wet and/or cold weather.
	Steep slopes and high altitude	Coherently with the Eurostat definition of 'mountain regions', the following criteria may be considered to define steep slopes combined to various degree to altitude: elevation > = 2 500 m; elevation 1 500–2 500 m and slope > = 2°; elevation 1 000–1 500 m and slope > = 5°; elevation 300–1 500 and local elevation range > 300 m.	Steep slopes and shallow soils in mountainous regions make the environment vulnerable and prone to extreme weather conditions.
	Sparsely-populated	They are defined by Eurostat '*as NUTS3 regions with a population density of fewer than 12.5 inhabitants per km²*'.	Scarce human resources, depopulation and abandonment of an area and/or of an economic activity accelerate the ageing process; prevent generational change; and limit the overall capacity of the region to cope with changing requirements, new technologies, product innovation, or added-value creation throughout the supply chain.
Structural	Ageing	Regions with an increasing share of older residents and a decreasing share of working-age persons. Population ageing may be assessed by calculating the median age and the old age dependency ratio (Eurostat data).	
	Infrastructure handicap	Regions suffering from lack of transport facilities and/or networking services, processing and marketing infrastructure (for example, local markets).	It causes isolation and increasing difficulties in milk collection, organisation of the production, logistics, services, product development, distribution, and trade.
Economic	Fragility	Fragile regions are defined as '*regions highly dependent on milk production both in terms of employment and economy and without any obvious alternatives to milk production*'. This definition is proposed in Ernst & Young (2013).	Dependency on milk production in fragile regions is due to lack of economic alternatives and not as a consequence of intensification or specialisation. Land use restrictions caused by natural and/or geographical constraints of the area may, for example, limit the range of viable economic activities.

Cat.	Attribute	Definition	Remarks
	Fragmentation	A region may be fragmented in the sense of scale (small-scale production, reflected for example in limited herd size and/or small processing units along the commodity chain). Fragmentation may also refer to the scattered location of land parcels.	It may imply lack of nearby complementing opportunities for dairy farmers or processors and higher production costs at both farm and milk assembly levels.

3. Critical review of the EC reports on the milk market developments and of the opinions of the EP and the CoR

3.1 European Commission communications and studies

3.1.1 Communications on evolution of the market situation and the consequent conditions for smoothly phasing-out the milk quota system

The so called first (COM(2010)727) and second (COM(2012)741) 'soft landing' reports were published on 8 December 2010 and 12 December 2012, respectively. They provide an update on dairy market developments and evaluate the prospects for market disruption arising from the elimination of dairy quotas in 2015. The reports themselves contain no analysis of the territorial impact of quota elimination at production level, given that a modified version of the Aglink-Cosimo model, which does not have a regional coverage, is used to simulate medium-term market prospects.

- **Increasing milk collection and price volatility**. Cow milk deliveries consistently but moderately increased in recent years (+ 1% in 2008, - 0.6% in 2009, +1.4% in 2010, +2% in 2011 and some +1.5% in the first seven months of 2012). The price volatility experienced since the exceptional peak in 2007 (downward trend up to 2010, followed by upward trend and stabilisation) was thus largely due to the economic recession and world market factors rather than to EU production changes. Prices of main dairy commodities have also been fluctuating since 2008 and also in this case volatility was mostly driven by world market factors.

- **Distortion of processors' response to price signals**. The EC noted that '*Intervention stocks grew rapidly in 2009 in the wake of a drop in demand. The deterioration of the market in 2009 created an incentive for dairies to turn away from high value added dairy products (like cheese, fresh products, yoghurts, etc.) towards intervention products (SMP and butter)*'. Upon expiry of the milk quotas, milk supply is expected to take advantage of market opportunities and dairies' response is expected to become less distorted and more efficient in responding to market signals.

- **Relatively favourable outlook for EU milk production and dairy products.** EU milk production is expected to increase at a moderate growth

rate in the medium-term (cumulated 8% from 2009 to 2022 and some 10% for milk deliveries to dairies) but the EU market share is projected to fall due to higher world competition.

- **EU milk production significantly below quota level.** Actual milk outputs are below the milk quota ceilings in most of the MS. The 2011-12 quota year was estimated to have ended with EU milk deliveries approximately 4.7% under quota and only six MS (AT, CY, DE, IE, LU, NL) exceeded their national quotas. In addition, '*By the last quota year (2014-15), EU milk deliveries are projected to be some 6% below quota. The expiry of the milk quota regime is projected to have a limited impact on milk deliveries at the aggregate EU level*'.

- **'Soft landing' is on track.** In both reports, the EC concluded that a 'soft landing' is on track in an overwhelming majority of MS. It reached this conclusion on the basis that milk quotas are no longer binding in the majority of countries and that the 'quota rent' is gradually eroding. The quota rent is defined as the difference between the farm milk price under quota (higher than market price when quotas are binding) and marginal costs of production. While quota rents are unobservable, a good indicator of the quota rent is the quota price, which is the price farmers are willing to pay to acquire additional quota. The milk quota price has been decreasing with the shortening life of the quota regime - and because the quota is no longer binding in many countries - and was observed to be already low or close to zero in a vast majority of MS.

- **Anticipating the use of additional instruments.** In the 2010 report, the EC anticipated the setting up of a market development monitoring instrument to increase transparency of information. Further to the conference '*The EU dairy sector: developing beyond 2015*' held in Brussels on 24 September 2013, a European Milk Market Observatory was put in place. Additionally, it was mentioned in the 2010 report that '*In case of serious imbalance, as a further tool to stabilise the market and as an exceptional measure if other measures available under the single CMO appeared insufficient, the Commission could consider a system based on Article 186 of the single CMO ("disturbance clause") that would allow milk producers, on a voluntary basis, to reduce their deliveries against compensation.*'

- **Recognising the lack of analysis on rural or disadvantaged areas.** In the 2012 report, in response to some concerns voiced on the lack of analysis of the impact of quota expiry on rural areas, the EC announced the undertaking of an independent study on future developments in the milk sector, including a territorial dimension (external study AGRI-2012-C4-04, reviewed below).

3.1.2 Communication on evolution of the milk market situation

Published on 13 June 2014, COM(2014)354 provides an update on the operation of the Milk Package and on the development of the milk market since the second 'soft landing' report in 2012. In particular, pursuant to Article 225(b) of Regulation (EU) No 1308/2013 on a common organisation of the markets, the report focuses on '*the effects on milk producers and milk production in disadvantaged regions*'.

- **Continuing favourable situation for the EU milk market.** Both weather and price volatility played a role during 2012 and 2013. Production increased by +0.6% in 2012 and by +0.7% in 2013. Milk margins were quite volatile, decreasing during 2012 but increasing on the back of historically high milk prices during 2013. There was no need for public support mechanisms (intervention buying-in and export subsidies) during the period but a correction in prices was not excluded '*given the milk production increase observed across the* [global] *major exporters*'. In addition, '*the medium-term prospects for milk and dairy commodities are favourable on both the world and domestic markets*', however, '*there are still doubts on the capacity of the EU regulatory framework to deal with episodes of extreme market volatility or with a crisis situation after the expiry of the quota regime, especially with a view to ensuring the balanced development of milk production across the European Union and avoiding extreme concentration in the most productive areas*'.

- **Limited production increase foreseen in the post-quota period**. Increases are expected especially in those MS currently restricted by the quota regime, namely Austria, Denmark, France, Germany, Ireland, the Netherlands, and Poland.

- **Operation of the Milk Package provisions.** The Milk Package, published in March 2012, has been fully in force since 3 October 2012 and applies until 30 June 2020. The provisions of the Milk Package are integrated in Regulation (EU) No 1308/2013 under articles 148-151, 152(3) and 157(3). They relate to the making of compulsory contracts and the recognition of producer organisations as well as collective negotiations, regulation of supply for PDO/PGI cheeses, interbranch organisations and compulsory declarations of milk deliveries. The communication gives details of the progress that had been made in transposing the Milk Package provisions into national legislation. Information '*is based on the replies from Member States to a specific questionnaire as well as the notifications provided for in the implementing rules*'.

- **Effects of the Milk Package on milk producers and milk production in disadvantaged regions.** Firstly, the report highlights that there is no uniform definition of 'disadvantaged regions' in relation to milk production and that MS used a variety of criteria in this regard (as discussed under chapter 2 above), with some MS also admitting to have no data available on the issue (BG, LT, LU, HU, MT, SK). On the basis of these different definitions, the importance of milk production in disadvantaged regions is reported to vary from 100% (in the case of Latvia, Finland and Malta) to 0% in Estonia, the Netherlands and Cyprus (see Appendix I). Trends are also not homogeneous. On the reduction of milk producers, in Poland it is reported to be higher than in not disadvantaged regions while in France, Austria and Slovenia the decrease in mountain areas is less pronounced than in other regions. Also, *'Milk production volumes in disadvantaged regions are decreasing in Estonia, Greece and Poland, but increasing in Germany, Ireland, Latvia and Austria. Spain registered a significant production increase in particular in regions with low population (representing almost 40% of the national deliveries)*'. In its conclusions, the EC recognises that '*The inventory shows that the situations and developments on the milk sector in disadvantaged regions in and between Member States are quite heterogeneous and would require a targeted approach.*', while also noting that '*it is too early to see significant effects of the Milk Package on the milk sector in disadvantaged regions*'.

3.1.3 Report on the economic impact of the abolition of the milk quota regime – Regional analysis of the milk production in the EU

The report, published in 2009, was prepared by JRC-IPTS. It provides a comprehensive quantitative assessment of possible implications of an EU dairy policy reform, with an explicit focus on regional effects of milk quota abolition in 2015 in the EU27. The analysis uses the comparative static model CAPRI (Common Agricultural Policy Regionalised Impact)[1] and compares a scenario in 2020 assuming the continuation of milk quotas, with a 2020 scenario in which milk quotas are eliminated in 2015.

- **Definition of scenarios analysed.** In fact, four scenarios are developed. The model is initially calibrated to the 2004 year (2003-2005 average) meaning that direct payments are still coupled (S1). The impact of decoupling, together with other policy changes agreed in the Luxembourg 2003 CAP reform, was simulated in a second scenario (S2). This (decoupled) scenario

[1] CAPRI combines an agricultural supply module with a global trade module for agricultural commodities. The supply module covers the most important agricultural activities in the EU27 at NUTS2 level. The market module provides market feedbacks to farm gate prices for changing farmer behaviour and allows simultaneously the simulation of policy changes at the market level.

was then projected forward to 2020 with the aid of expert assumptions on the development of dairy markets and milk quota rents and forms the reference situation for the comparative static analysis (S3). The policy scenario S4 then represents the impact of eliminating dairy quotas with other policy elements kept the same as in scenario S3. Thus, the analysis isolates the effects of the abolition of the milk quota system in the EU27 on milk prices and production at MS and regional level based on a projected reference situation in 2020.

- **Assumptions regarding quota rents drive model results.** The territorial results are largely driven by the level of milk prices and quota rents assumed for each MS in 2020. This is because, overall, it can be expected that milk production will increase while milk prices will decrease. The regional production effects are heterogeneous depending on the relationship between quota rents and the expected milk price decrease. In regions where the quota rent was low in the reference situation, milk prices could drop below marginal cost, i.e. in those regions production will decrease. In regions where the final milk price remains above marginal cost, production will increase. This leads to a redistribution of production among NUTS2 regions when there are no longer restrictions as implemented by different national quota trade regimes. Future milk prices were provided by the DG AGRI medium-term projections (2008 version). Considerable effort was put into estimating milk quota rents for the base scenario S1 in 2004, and these quota rents were then projected forward using quota rent forecasts from the EDIM model (Réquillart *et al*., 2008). On average, it was assumed that quota rents would amount to 15% across the EU27 in 2015, varying from as much as 30% or above for Austria and the Netherlands to relatively low values of 6-8% for some of the EU12 MS. However, for no MS was the estimated quota rent in 2015 assumed to be zero.

- **Regional gainers and losers.** The study estimated that cow milk production would increase by about 4.4% in the EU27, accompanied by a decrease in raw milk prices of about 10%. Most regions were expected to expand their dairy herds as a consequence of quota abolition. Almost 70% of regions show an increase in dairy cow herds, with strongly increasing dairy herds (increase of more than 16%) observed in about 10% of NUTS2 regions. On the other hand, around 17% of NUTS2 regions decrease their dairy cow herds quite significantly by more than -4% in this simulation. The regional production outcomes are mainly determined by the estimated milk quota rents in the baseline scenario. Regions with high quota rents, such as in Austria (all above 28%), the Netherlands (all above 27%), Belgium (Brabant Wallon 38%, the rest above 28%), Luxembourg (29%), and to a lesser extent Italy (Lazio, Molise and Abruzzo above 33%) and Germany (Saarland, Koblenz and Rheinhessen-Pfalz above 32%) increase their milk production

significantly. The overall increase of milk production drives down dairy prices in the EU27 and thus exerts economic pressure on regions with low quota rents (especially to be found in the UK, Sweden and Finland). In countries like Austria, Belgium, Ireland, the Netherlands and Spain which increase their milk production significantly, there is little heterogeneity among their sub-regions. Several countries of the EU12 would decrease their milk production slightly with, again, only moderate heterogeneity among the sub-regions. However, for some bigger MS like France, Germany and the UK there are quite significant differences within the countries. In Germany, a significant reduction of milk production is expected for the eastern part, while most of the remaining regions expand their production, for most parts quite significantly. In the UK, an overall reduction of milk supply can be observed, whereas this decline is more considerable in the southern part than in the north. Reference is to Appendix I for the mapping of results.

The dependence of these results on the assumptions made regarding (a) the projected level of milk prices in 2020, and (b) the projected level of quota rents by region in 2015, should be highlighted again. In particular, in the light of the evolution in quota rents documented in the EC ‘soft landing’ and ‘milk package’ reports, it seems that this study overestimated the likely level of quota rents in 2015 when milk quotas are abolished, in part because of the ‘soft landing’ increases in quota agreed as part of the 2008 Health Check and phased in over the years to 2015. However, the pattern of regional gainers and losers may not be that different even if lower quota rents, and zero quota rents in some MS and regions, had been assumed in 2015. Lower quota rents imply a smaller production increase as a result of quota elimination, but also reduce the ‘cushion’ that individual farmers have between milk prices and their marginal costs of production. So, even a smaller projected reduction in milk prices could, paradoxically, still lead to significant production cutbacks in the higher-cost milk production regions.

3.2 External study AGRI-2012-C4-04 'Analysis on future developments in the milk sector'

This study, published in 2013, defines likely scenarios following the end of the quota regime in the EU27 based on a synthesis of a panel of experts' opinion. It covers market balance and competitiveness as well as the territorial dimension of sustainable milk production.

- **Quota removal is not seen as a major shock to dairy markets.** Overall, after 2015, no dramatic change is expected in the trend of the restructuring process that has been taking place in the last years in the EU. The conclusion is based on the review of several other studies undertaken over the period 2008-2011, which forecasted the consequences of quota abolition for total milk production and the price of raw milk in 2020. The increase in total EU milk production is expected to be between 0% and 5%. Further, quota removal does not seem to represent a crucial element in determining market perspectives as quotas are no more binding in most MS. The global evolution of market forces at the international level and how the EU dairy sector will adapt to it is now much more important.

- **Milk package is useful but not determinant for market evolution.** Assessed on the basis of theoretical considerations and comparison with experience gained in other sectors, the package is expected to facilitate market information flows and access to incentives. However, both will have no major impact on market evolutions, and price volatility will remain '*one of the greater challenges that dairy producers will have to face in the near future*'.

- **Organisation of farmers is essential.** Producers' organisations (POs) and interbranch organisations (IBOs) may be key to a fairer distribution of added-value across the supply chain. Organisations shall be of an adequate size to be effective.

- **Regional responses will be heterogeneous**. Production will tend to be more concentrated in larger and more efficient farms and this will also induce a geographical redistribution towards countries characterised by the presence of more farms with such characteristics. There is also a consensus in identifying farmland abandonment as a major risk for certain areas in the forthcoming periods, even though this is regarded as independent from the removal of quotas. However, the experts took the view that the territorial impact of milk quota abolition will be limited because less-favoured regions face a wider set of constraints and challenges, such as the underlying

structural change in dairying and the lack of competitiveness of the dairy sector and processors. They argued that the milk quota was anyway a second-best option to more general policy initiatives to maintain resilience and improve regional competitiveness. How important quota abolition will be as an independent factor will depend on the future level of milk prices, and on whether the focus is on the near-term future or on the longer-term trends.

3.3 Policy statements

On 11 December 2013, the **European Parliament** (EP) adopted a resolution on maintaining milk production in mountain areas, disadvantaged areas and outermost regions after the expiry of the milk quota.

- **Particular regions will face competitiveness difficulties after quota abolition.** This applies not only to milk production but also to the collection and processing of milk in mountainous and outermost regions. The EP was concerned that these regions would not be able to take advantage of the growth opportunities generated by deregulation, due to their natural and permanent handicaps, and that the elimination of quotas could also '*place parts of other less favoured areas at a competitive disadvantage, endangering the sustainability of production in these areas, partly because production density is so low that collection and processing enterprises could relocate to more competitive areas where, in particular, the cost of milk collection is lower or the cost of transporting the products to market is lower*'.

- **New initiatives required to support milk production in disadvantaged areas.** The EP called on the Commission, the MS or the regions for, among many other initiatives: a review of the direct payment system for livestock farming based on historic reference amounts; earmarking to outermost regions of a stock grazing premium; focussing on small and medium businesses, as well as on young farmers; a better use of rural development programmes or formulation, where applicable, of specific programmes for milk production in disadvantaged areas; a broader eligibility for the 'mountain product' designation; project-based initiatives generating added-value, differentiated products and new strategies for enhancement; land use related actions to prevent grassland loss; specific support to producers' organisations formation; specific initiatives under research and development policy; and a more efficient implementation of the school milk scheme. The EP also asked the Commission '*to closely follow the development of milk production in these areas and to review the economic impact of the expiry of milk quotas on dairy farms in these areas'*, and '*to submit to the European*

Parliament and the Council a report addressing this issue by 2017, accompanied by a legislative proposal if milk production has decreased significantly in these regions'.

The EC response to the resolution[2] develops around some main points: (i) the subsidiarity principle is particularly important in this case, as the MS and the regions are '*best placed to assess the precise needs of their territories and to mobilise the various instruments available'* under the CAP; (ii) several specific instruments and tools are available to MS and regions to focus on vulnerable areas and/or to tackle specific challenges, under both the EARDF (e.g. thematic sub-programmes) and the direct aid (e.g. specific arrangements in relation to natural constraints or coupled support for certain regions or sectors, including the dairy sector); (iii) action to address some of the raised objections has already been taken (e.g. the incorporation of the concept of 'mountain produce' in the Quality Regulation, the launch of initiatives under research and development programmes, or the review of the school milk scheme).

In 2013, in its opinion on the EC second 'soft landing' report, the **Committee of the Regions** raised issues regarding the adequacy of the Milk Package and the proposed CAP regulations to address the need to better guarantee the incomes of milk producers, and to regulate the milk market in times of crisis. In particular, concerns were expressed on the lack of complementary and comparative studies, of '*a realistic evaluation of production, internal consumption and export prospects over the medium and long term*', and of progress in terms of global or bilateral market negotiations.

- **Experience with the 'soft landing' to date had been favourable.** The Committee noted that the EU had experienced neither an explosion in milk production nor an unduly sharp drop in the value of quotas due to the increase in quota volumes between 2008 and 2015, even though processing plants were put a risk in several countries because of this steep rise in production. However, '*the situation on world markets has been favourable since 2010 but that this is no guarantee of world prices holding over the medium and long term*'.

- **Ignoring the territorial impact (economic, social and environmental) of the lifting of quotas.** The Commission's analysis was judged to be limited to macroeconomic aspects, often on the basis of too general models inputted with outdated hypotheses. The diversity of farm size, production methods, production conditions, marketing opportunities and modalities are not considered. In many regions, most milk is produced on small and medium-

[2] The source is a report by Mr Dorfmann (rapporteur) to the EP Committee on Agriculture and Rural Development.

sized family farms. It is essential, therefore, that reforms involving the milk sector do not damage this type of family businesses that contribute most to sustainable development.

- **Additional policy instruments would be necessary to address territorial concerns.** The Committee considered that the Milk Package '*lacks the instruments to mitigate the adverse effects of removing milk quotas in the regions and on the family model of farming*', and warned that quota abolition would result in the concentration of production in the most advantaged farming regions, with increased risks to the environment. Additional regional policy instruments are necessary to ensure a balanced development. Specifically, the Committee called for:

  - …'*specific attention and support for regions where restructuring has resulted in a sharp fall in traditional milk production but where the sector has managed to survive over recent decades; local production must be exploited here, using all existing instruments, including short marketing circuits*';

  - Guaranteeing producer incomes through the inclusion of '*production costs in negotiations on farm gate milk prices on the basis of the results of the Farm Accountancy Data Network (FADN) by country or even by region*';

  - A return to '*a public policy of management of security stocks*';

  - A centralised crisis management system at the EU level, where crisis situations are defined according to reference prices and/or margins;

  - The undertaking of complementary studies '*to assess the territorial impact of quota abolition by groups of countries, regions, particularly outermost regions, and soil and climate zones – mountain areas, disadvantaged areas, intermediate mixed farming areas (livestock farming, lowlands)*'. The aim is to anticipate consequences and possibly avoid/limit them;

  - Further moves to rebalance direct aid to promote '*greater competitiveness in small and medium-sized farms making the most of local forage possibilities, areas facing specific natural constraints, outermost regions, island regions and certain fragile industries*';

  - support for a 'mountain product' mark to give the milk sector regional identities, and the extension of '*the possibility of managing the volumes stipulated in the milk package - limited for the moment to PDO and PGI*

cheeses - to mountain milk in relation to the new optional quality mark for mountain products';

- …'*a coherent rural and milk development project for mountain areas, for disadvantaged milk production areas, for outermost regions and for Member States where most of the milk is produced by very small farms*'.

The Committee further suggested to take more time to determine the consequences of milk quota abolition, and therefore to consider the adoption of a moratorium, the extension of quotas until 2019/2020, the implementation of a safety net for the milk market, the monitoring of the world market, and the assessment of public policies in key producer countries.

3.4 Potential implications of the phasing-out of milk quotas in the EU

Arguments highlighting different aspects related to the abolition of the milk quota regime are provided against some key issues arising from the literature and the on-going policy debate (Table 2).

Table 2: Potential implications of the phasing-out of the milk quotas

Key issue	Potential implications
Accuracy of projections	Milk prices, feed prices and quota rent assumptions are the critical variables in making projections of EU milk production in the coming decade. The EC notes that '*the rate at which production will increase will depend on the market conditions and the milk prices delivered at the time'* (EC-DG AGRI, 2013b). **The milk price assumptions are based on a continuation of buoyant global demand for dairy products**; lower milk prices than expected would lead to a smaller stimulus to expansion but would also make continuation of milk production in disadvantaged regions more difficult. The assumption regarding quota rents is based on whether a Member State is filling its quota or not. **Looking just at the national position to check if quotas are binding may underestimate the potential for expansion at farm level**. Even though a country may not be producing as much milk as its quota allows, if farmers with unused quota are reluctant to dispose of it and those willing to expand remain constrained because of uncertainty about the superlevy position in any year, there could still be an additional boost to production when quotas are abolished.

Key issue	Potential implications
Long term structural change in dairy production	The change is on-going and is driven largely by changes in technology, economies of scale and relative prices of labour to land and capital. It is thus **relatively independent of policy interventions but the abolition of milk quotas is likely to encourage dairy farm restructuring**, including increases in herd sizes and farm sizes, greater specialisation on farms with a dairy enterprise, greater milk yields per cow and a falling number of dairy cows, a move towards higher-input systems and higher farm income on larger farms (Ernst & Young, 2013). **The milk quota system slowed down the pace of structural changes in the EU milk sector since it prevented production from easily being shifted from one region to another.** The significance of this effect depended on the arrangements for the exchange of quota within each MS. The smaller the quota regions were defined in MS (for example, at processor or administrative region level) and the more restrictive quota trade was organised (for instance, through coupling quota to land, farms or livestock), the stronger was the effect of the milk quota in impeding structural change. This helped in keeping less competitive regions (and farms and dairy companies) in production and did not allow more competitive regions (and the farms and dairy companies located in these regions) to fully capitalise on their competitive advantage (Ernst & Young, 2013).
Differentiated regional responses	The structural adjustments expected in the wake of quota abolition will impact differentially on the various types of milk-producing regions, depending on differences in the profitability of milk production, market conditions and the competitiveness of the processing sector. **One factor differentiating regional responses will be the ready availability of cheap supplies of forage.** In general, we can expect that production increases will be concentrated in regions where cheap forage, particularly from grass, is available (often in north-western Europe) while production increases in regions which rely more heavily on purchased feed are unlikely to see a similar increase in production (Bellamy, 2012). **Another factor differentiating responses is the different cost structures in different regions.** The literature reviewed highlighted that many observers fear that quota abolition will pose a threat to continued milk production in higher-cost regions less favourable to milk production. Because of the expected growth in the demand for high-quality dairy products in emerging economies and the relatively constrained capacity of existing export suppliers to meet this demand, **an increase in added-value and quality products may be expected**. **While milk producers in LFA face natural and structural constraints which raise their production costs, differentiated marketing strategies can help to obtain a premium milk price to compensate for this**. …'*Whenever processors are able to differentiate their products and create a higher willingness to pay for differentiated product or process qualities, the role of cost competitiveness for the future development of milk production in*

Key issue	Potential implications
	a specific region will be reduced' (Ernst & Young, 2013). There are examples from, for instance, Austria, France, Italy or Germany (Bavaria) where highly differentiated dairy products allow processors (and their suppliers) to stay in business although they are not able to compete on the basis of low costs. Differentiation can be based on short supply chains, high value products, or premium labels such as mountain labels, while more favoured regions supply highly competitive export dairy plants supplying, in turn, bulk commodities and export markets.
Dairy sector contribution in disadvantaged areas	The literature has measured the economic importance of milk production in different regions by combining (1) share of agriculture in Gross Domestic Product and (2) the share of milk in agricultural revenues. On this basis, **milk production does not appear to be an important component of regional economies**. **A statistical approach may underestimate the role played by dairying**, for two reasons. First, it does not capture the contribution of dairy farming to environmental and landscape quality and cultural heritage, which has positive spin-off benefits in terms of contributing public goods and supporting other regional industries such as tourism. Second, the dairy farm sector is the basis for suppliers, processors and distributors within the regional agro-food complex so that the importance of the dairy sector as a whole is greater than just the share of dairy farms.
Future milk market prospects	**Quota abolition will help the EU dairy industry become more competitive**. In particular, it will help to strengthen the overall competitiveness of the processing sector to the benefit of dairy producers throughout the Union. The EU dairy processing sector has been characterised as innovative and a global player, but it has gradually been losing market share on world markets and it operates in a high-cost environment. The quota system, by maintaining milk prices higher than they would otherwise have been, has been one factor raising the price of raw material to the processing industry. Further, over time, the impact of these higher prices on the income of dairy farmers was dissipated, in part because the structural rigidity imposed by the quota system gave rise to inefficiency and raised production costs, but also because the system of quota trading (itself introduced as a mechanism to limit inefficiency and encourage structural adjustment) mostly benefitted exiting dairy farmers rather than continuing farmers and new entrants, for whom the acquisition of additional quota implied an additional business cost. On the other hand, **all observers predict greater volatility of milk prices as the European milk market becomes more integrated with the global market**. Thus, the sensitivity of the expected increase in milk production to the future price level following quota elimination may be an important issue if not accompanied by supportive marketing strategies (e.g. opening up to the southern Mediterranean and Middle East markets). **The literature warns against a too-facile assumption that the potential expansion of production capacity can be fully exploited**. Many other factors must also be considered in evaluating the likely

Key issue	Potential implications
	production increases following quota abolition. Key limiting factors will include environmental aspects, the age structure of dairy farmers and the availability of labour, the availability of additional land and capital, and the availability of markets and processing capacity to cope with the additional supply. In addition, expectations for increasing global market demand may also be too optimistic (for example, demand is now affected by the substantial milk stock of China and the Russia ban of western food imports).
Environmental aspects	Modelling of the environmental effects of the abolition of milk quota confirms that increased nitrogen emissions and ammonia and methane emissions would occur but that **the magnitude of the effects are generally small**, in part because expansion of dairy cow numbers is offset by a parallel decline in the number of suckler cows in the modelling exercise (Kempen *et al*., 2011). It should also be noted that expansion during the 'soft landing' period has come about entirely through increased yields and the number of dairy cows has continued to decline, contrary to the predictions of the JRC modelling exercise. **In the more favoured regions, there is a close correlation between production potential and the current level of production intensity** (measured by stocking density and yields per cow) with associated environmental problems. Conversely, **small-scale dairy farms in the less-favoured regions are not seen as creating environmental problems but rather as contributing substantial environmental benefits**. If quota abolition leads to the further intensification of dairying in the more favoured regions, this could lead to further negative effects on the environment, including greater air, soil and water pollution and a reduction of biodiversity.
The role of policy	Policies play an **important role in offsetting natural constraints**. The literature reviewed provides evidence of the role of policy interventions in helping to overcome the adverse cost implications of natural constraints in LFA for milk production. In particular, an impact analysis of the LFA scheme (though now outdated) found only small differences in the evolution of farm structures in LFA and non-LFA over the period 1990-2003, although variations between MS were quite significant. In addition, no evidence of a large decline of the UAA in LFA was found (Cooper *et al.* 2006). Jogeneel *et al.* (2011) concluded from examining 1995-2004 data that the number of dairy farms declined less steeply inside LFA. However, **the monitoring and impact assessment of policies is concretely hampered by the lack of a commonly shared definition** of disadvantaged areas for milk production.

4. Review of EU RDP funding and measures relevant to milk producers in disadvantaged regions

4.1 Overview

The EU Rural Development Policy (RDP) is defined under Pillar Two of the reformed Common Agricultural Policy (CAP). RDP will be implemented through national and/or regional rural development programmes covering a period of seven years (2014-2020). National and regional authorities are responsible for the preparation of these programmes which are then submitted, reviewed and approved by the Commission. Within the rural development programmes, authorities have to: specify priorities and focus areas; set targets; select measures and outputs; and allocate financial resources.

The programming process is in evident delay with respect to plans. Latest available information on the state of play indicates that, as at May 2014, 20 national and 89 regional rural development programmes are under preparation (EC-DG AGRI, 2014). In addition, France, Germany, Italy and Spain are likely to submit a total of 7 National Programmes on rural networks and other topics (e.g. risk management, innovation and technical assistance). On specific provisions of the EAFRD Regulation: i) Bulgaria, Hungary, Italy and Romania are working on the development of *thematic sub-programmes* on topics such as mountain farming, young farmers, short supply chains, and small farms; ii) *multi-funded Local Development Strategies*, under the LEADER designation, are foreseen in Austria, Bulgaria, Czech Republic, Germany, Denmark, Greece, Hungary, Italy, Finland, France, Lithuania, Latvia, Poland, Sweden, Slovenia, Slovakia, and the United Kingdom; iii) 21 MS are either considering to include or including in their programmes *financing instruments* (FI) to address specific situations as envisaged by the Common Provision Regulation (EU) No. 1303/2013. Up to the time the new rural development programmes are approved and become operational, transitional provisions as indicated in Regulation (EU) No 1310/2013 will apply. Regulation (EU) No 1305/2013 on support for rural development by the EAFRD will be applicable from January 2015.

Support to the RDP is through the EAFRD.[3] Overall, the EAFRD has been allocated EUR 84.9 billion (in 2011 prices) for the period 2014-2020. Additional funds may be shifted by MS from Pillar One to Pillar Two up to a ceiling of 15% of their allocation[4]. Other obligations include: the spending of at least 5% of the EAFRD allocation on the LEADER approach; and of at least 30% '*on climate change mitigation and adaptation as well as environmental issues*', for example through measures related to investments, agri-environment-climate objectives, organic farming, or payments to areas facing natural or other specific constraints.

4.2 Relevant provisions[5]

EAFRD provides for a range of measures and instruments addressing one or more of the six EU priorities for rural development: 1: knowledge transfer and innovation in agriculture, forestry and rural areas; 2: farm viability and competitiveness; 3: food chain organisation; 4: restoration, preservation and enhancement of ecosystems related to agriculture and forestry; 5: resource efficient, low-carbon and climate resilient economy in the agriculture, food and forestry sectors; and 6: social inclusion, poverty reduction and economic development in rural areas. Measures and instruments considered relevant to milk producers located in disadvantaged regions are summarised below.

4.2.1 Measures

Measures have been grouped according to the type of support they may potentially provide to help disadvantaged milk producers to remain competitive after the elimination of dairy quotas.

⇨ **Enhancing viability and competitiveness**

Quality schemes for agricultural products, and foodstuffs (Article 16)
Quality and certification schemes provide the opportunity to enhance dairy farmers' competitiveness and add value to their products for both wholesale and direct sale. This measure supports the participation of farmers to existing

[3] EAFRD is one of the five European Structural and Investment Funds (ESIF) for which common provisions and a Common Strategic Framework (CSF) apply. Coordination between ESIF funds is also through the Partnership Agreements signed by the EC and the MS. ESIF provide EU financing to Operational Programmes (OPs). The OPs describe how the thematic objectives and fund-specific priorities will be addressed by means of measures. The OP for EAFRD is a rural development programme.
[4] However, transfer of funds is also allowed from Pillar Two to Pillar One. The same ceiling of 15% applies, with the exception of Bulgaria, Estonia, Finland, Latvia, Lithuania, Poland, Portugal, Romania, Slovakia, Spain, Sweden and the United Kingdom, for which the ceiling may be up to 25 % of the amount allocated to EARDF (Regulation (EU) No 1307/2013, Article 14).
[5] Unless otherwise specified, articles referred to in this chapter are from Regulation (EU) No 1305/2013.

schemes at EU or country level, including the protected designations of origin (PDO) and geographical indications (PGI). Milk producers located in disadvantaged areas may have some offsetting advantages related to their location such as quality animal feed (e.g. mountain grasslands) and rearing environments for the making of niche products. Contribution is in the form of annual incentives determined by the level of the costs arising from the participation in the schemes and is up to EUR 3,000 per holding per year for a maximum of 5 years. Support covers also information and promotion activities (up to 70% of the eligible costs).

Investments in physical assets (Article 17)

This measure allows collective or individual support for the undertaking of tangible and intangible investments aimed at the sustainability of both the production unit and the business. Hence, support may cover investments for: interventions aimed at the improvement of the performance or sustainability of the holding; operations of the dairy supply chain such as processing, marketing and/or product development; infrastructure development, modernisation, adaptation (for example, of the milking area or of the milk storage room), land consolidation and improvement; or non-productive interventions for the achievement of agri-environment-climate objectives. Infrastructure and non-productive investments are 100% refundable. The support rate for the other investments ranges from 40% to 75% of the eligible amount, depending on the type of region (for example, it is 75% for the outermost regions or the smaller Aegean islands; it is 60% for areas facing natural or other specific constraints).

Farm and business development (Article 19)

Among the target groups of this measure are young farmers and small farms. Young and small producers may benefit from start-up support. Young farmers may receive up to EUR 70,000 while the maximum allocation for the development of small-scale milk production is limited to EUR 15,000 per small farm. The actual amounts to be paid have to be set by MS, also on the basis of the socio-economic characteristics of the target area. MS also apply their definitions of 'small farms' provided these are not in contradiction with the definition of micro and small enterprises. In addition, small-scale milk producers eligible for the small farmers scheme established under Pillar One, may also benefit from the payment of a compensation amount if they decide to transfer their holding, and the corresponding payment entitlements, to another farmer.

Basic services and village renewal in rural areas (Article 20)

Under this measure, support is provided to revitalise living conditions in municipalities and villages located in rural areas. The focus is not only on basic services but also on the protection and management of Natura 2000 sites and

other areas of high nature value (HNV). Support ranges from small-scale infrastructure development to investments for the maintenance and conservation of cultural and natural heritage, rural landscape, and HNV sites. Socio-economic aspects are specifically mentioned as appropriate for consideration. In addition, relocation of activities and buildings/facilities conversion is allowed, if it contributes to improve the quality of life or the environmental performance of the rural settlement.

⇨ **Strengthening connectivity**

Setting -up of producer groups and organisations (Article 27)
Support is envisaged for the setting up of new producers groups or for existing groups, provided that they are SMEs. Overall, the purpose is to increase market opportunities of the groups' members and gain economies of scale by jointly implementing activities such as product information and sales, skills development, management or promotion of an innovation process. Support is equivalent to 10% of the marketed production of the members and is paid in yearly instalments over a maximum period of 5 years (annual payments cannot exceed the maximum amount of EUR 100,000).

Co-operation (Article 35)
Support may be provided to individual or groups of milk producers, to undertake production cost-reduction initiatives such as joint work processes, the sharing of facilities and resources, or the establishment of short supply chains and local markets. Other eligible initiatives relate to piloting and innovation, for example for the development of new products, practices, processes and technologies. Costs covered by this measure include the running cost of the co-operation, feasibility studies, business plans' preparation, promotion activities, and the direct costs of specific projects or actions.

Support foreseen under Articles 27 and 35 is obviously relevant for the implementation of the Milk Package provisions related to producer organisations and their potential in promoting their own interests, through bargaining and interbranch organisation.

⇨ **Providing compensation allowances**[6]

Agri-environment-climate (Article 28)
The inclusion of this measure in national and/or regional development programmes is compulsory. Overall, it is aimed at supporting a shift towards more sustainable farming systems. Compensation is payable to those milk producers or groups of producers who agree to undertake agri-environment-

[6] Double funding from different sources is explicitly excluded in all cases.

climate commitments as defined by MS but aiming, overall, at the change of agricultural practices for the benefit of the environment and of climate. Payments '*cover only those commitments going beyond the relevant mandatory standards*'. Provided that they are endorsed by the Commission, this measure may also support commitments to extensify livestock farming, or commitments related to the conservation, sustainable use and development of genetic resources as well as to the rearing of endangered local breeds. Commitments shall cover a period of 5 to 7 years. Payment is meant to compensate the additional costs incurred by the producers to meet the commitment on a voluntary basis, as well as any potential income loss deriving from the undertaking. Compensation is area-based and goes up to EUR 900 per hectare per year, depending on the land use (EUR 900 for specialised perennial crops, EUR 600 for annual crops, and EUR 450 for other land uses), or is EUR 200 per livestock unit (LU) per year for local breeds.

Organic farming (Article 29)

Since dairy product can qualify for organically produced agricultural products, compensation is payable to those milk producers or groups of producers who commit to convert to or maintain organic farming practices and methods as per Regulation (EC) No 834/2007. Commitments shall cover a period of 5 to 7 years. Payment is meant to compensate the additional costs incurred by the producers to meet the commitment on a voluntary basis, as well as any potential income loss deriving from the undertaking. Compensation is area-based and the same amounts specified under article 28 apply for perennial crops, annual crops, and other land uses.

Natura 2000 and Water Framework Directive payments (Article 30)

Compensation is payable towards Natura 2000 agricultural and forest areas designated pursuant to Directives 92/43/EEC and 2009/147/EC, as well as other protected areas that imply disadvantages and/or restrictions for milk producers. Compensation towards additional costs and income loss that may be derived from these disadvantages is paid up to EUR 500 per hectare per year.

Payments to areas facing natural or other specific constraints (Article 31)

This measure compensates for producers located in mountain areas and other areas facing natural or other specific constraints. Payment is meant to compensate the additional costs incurred by the producers, as well as any potential income loss deriving from the constraints of the area. Payment is between a minimum of EUR 25 to a maximum (e.g. in mountain areas) of EUR 450 per hectare per year. However, these thresholds may be increased if reasons are duly justified in the rural development programmes. In addition, the measure is 'retroactive', as it allows the payment to those beneficiaries that are not

eligible following the current criteria[7] but *were* eligible during the 2007-2013 programming period[8].

Animal welfare (Article 33)

Milk producers may benefit from compensation payments if they commit to undertake operations for the welfare of their animals that go beyond existing mandatory standards. This measure is relevant for the promotion of free-range livestock. Payment is meant to compensate the additional costs incurred by the producers to meet the commitment on a voluntary basis as well as any potential income loss deriving from the undertaking. Compensation is up to EUR 500 per LU per year.

⇨ Managing crisis situations in general and price volatility in particular

Risk management (Article 36)

This measure defines the financial support payable to farmers suffering from losses due to either natural hazards or market crisis. The latter case is particularly relevant for our analysis and is managed through an *income stabilisation tool* (see below). However, milk producers located in vulnerable and prone to extreme weather conditions areas may benefit from contributions to the payment of premiums for insurance against economic losses caused by adverse climatic events, or from compensations towards the economic losses caused by these events. In both cases, support is foreseen only if more than 30% of the average annual production (over the last three years) is lost.

Income stabilisation tool (Article 39)

The tool is for mitigating the negative impact on farmers' income caused by environmental or economic risks. Price volatility is among the eligible risks. The tool is expected to work in the form of an accredited scheme or mutual fund paying financial compensations to farmers whose income drop exceeds 30% of their average annual income (where the average is calculated over the last three years). The fund needs to be regulated by specific provisions not to break competition rules. It further needs to be properly conceived in terms of management rules and procedures. Funding is expected to cover administrative costs, compensation costs and interests if commercial loans are taken to pay compensations. Support rate is up to 65% of the eligible costs.

[7] Article 32(3) of Regulation (EU) No 1305/2013 defines as eligible for payment under Article 31: mountain areas; areas, other than mountain areas, facing significant natural constraints; and other areas affected by specific constraints, where '*areas, other than mountain areas, shall be considered to be facing significant natural constraints if, at least 60 % of the agricultural area meets at least one of the criteria listed in Annex III at the threshold value indicated*'.

[8] Article 36(a)(ii) of Regulation (EC) No 1698/2005.

4.2.2 Programming and financing instruments

Thematic sub-programmes (Article 7)

Thematic sub-programmes are conceived to address country-specific needs, in particular towards the restructuring of an agricultural sub-sector. Higher support rates apply (+10% with respect to the standard rate and up to a maximum combined support rate of 90%) and specific interventions to support farming in mountain areas, small farms, and short supply chains (all of which are potentially relevant to disadvantaged milk producers) are foreseen. However, only four MS have indicated to date that they will be taking advantage of this type of tailored programming instrument.

LEADER (Articles 42, 43, 44)

The LEADER approach will be commonly used by the ESIF for community-led local development (CLLD). Support to CLLD is compulsory under the EAFRD, and optional under the ERDF, the ESF and the EMFF.[9] CLLD has the potential to prevent or mitigate the impact over a territory of the milk quotas phasing-out as it is: focused on specific sub-regional areas; driven by socio-economic interests (represented by private and public local actors); designed around the needs and potential of the area; and part of a local development strategy. Local communities not having implemented LEADER in the previous programming period may seek support for capacity building and small pilot projects without the obligation of submitting a local development strategy. The maximum EAFRD contribution is 80%; it may be raised to a maximum of 90% for less developed regions, outermost regions, transition regions and smaller Aegean islands.[10] Inter-territorial co-operation of groups within a MS, or transnational co-operation of groups of different MS, or co-operation between groups based in MS and third countries are also eligible. The preliminary screening of rural development programmes indicates that 17 MS will be proposing local development strategies.

Financing instruments

Financing instruments (FI) supported through the ESIF shall meet those investment needs that are not fulfilled by market sources. Yet, investments to be supported are expected to be financially viable. These instruments may be set up at national, regional, transnational or cross-border level and shall contribute to the achievement of the objectives of the respective fund. Financial instruments are contributed 100% from the EAFRD. The preliminary screening of rural development programmes indicates that 21 MS are likely to use FI such as

[9] The common provisions applying to CLLD are specified in Regulation (EU) No 1303/2013 (Articles 32, 33, 34, 35).

[10] Less developed regions have a GDP per capita< 75 % of the average GDP of the EU27; transition regions have a GDP per capita between 75 % and 90 % of the average GDP of the EU27.

guarantee funds, credit funds, interest-rate subsidies, refundable advances, revolving funds, venture capital funds, etc.

It is also worth to mention that Regulation 1306/2013 (Article 12) requires MS to establish a Farm Advisory System to provide advice at farm level on, among other areas, the measures envisaged under the RDP and related to business-oriented activities such as modernisation, competitiveness, sectoral integration, innovation, and market orientation. Also, additional funding may be available for milk producers under Pillar One (Regulation (EU) No 1307/2013 on direct payments to farmers under support schemes, in particular with regard to environment-related actions, young farmers, areas with natural constraints, and small farmers), other programmes such as LIFE+, POSEI (for the outermost regions of France, Portugal and Spain), and trans-national co-operation programmes (one relevant example being the Alpine Space Programme).

4.3 Adequacy and possible obstacles

The Regulation on EARDF provides the legal framework for MS and regions to take the necessary action. The range of measures and tools provided for in the RDP appears to be sufficiently suited to mitigate several of the attributes potentially causing disadvantages with respect to milk production, as outlined in Table 1. In particular:

- Prevent abandonment, through: renewal of rural areas where small-scale milk production is one of the few viable economic opportunities, provided these areas are significant for conservation, biodiversity, heritage, or socio-economic reasons; relocation and buildings/facilities conversion opportunities; compensation payments for having the production unit located in areas facing natural or other specific constraints; payment entitlements for the development of small-scale milk production; safety-net mechanisms for economic losses caused by adverse climatic events or price volatility.

- Reduce isolation and production costs, through: joint work processes; sharing of facilities and resources; economies of scale derived from co-operation and collaboration among producers; establishment of short supply chains and local markets; farm modernisation and intensification in general.

- Facilitate generational change, through: start-up support to young farmers; support to innovation development (new products, practices, processes and technologies).

- Increase added-value, through: incentives to participate in quality and certification schemes.

- Improve infrastructure availability and suitability, through: investments in physical assets or non-productive interventions.

It is not possible to say whether funding will be sufficient at this stage. First, overall allocation to the RDP depends on the amount transferred from Pillar One to Pillar Two by each MS, or vice versa[11]; second, it depends on the specific allocation made by MS or regions to the various measures, as it may also happen that support to disadvantaged milk producers is not considered as one of the preferred options for local or regional development; finally, these allocations will still not reveal the breakdown of resources available to be spent on milk producers located in disadvantaged areas.

The quality of implementation and impact of each programme will largely depend on the quality of the planning phase. Programming at the national and regional level has been extensively supported by means of stakeholder consultations, analysis (e.g. ex-ante, SWOT, and needs assessment), knowledge transfer (e.g. seminars, workshops, and thematic working groups, in particular through the activities of the European Network for Rural Development), as well as lessons learnt from the previous programming period. Nevertheless, from the perspective of local and regional authorities (LRAs), difficulties in implementation may be expected with regard to:

- The effective and efficient use of the various tools available in the RDP (such as LEADER, FI, and the income stabilisation tool).

- The suitability of selected FI, including the type of products made available to beneficiaries, the scope of intervention (supported actions), and the clarity of applying rules and procedures for management and operation.

- The capacity and flexibility of administrators, for example to deliver operations foreseen under Article 20 on 'Basic services and village renewal in rural areas' that are expected to be consistent with existing local development plans and strategies; or to set up local public-private partnerships ('Local Action Groups') for the implementation of CLLD within the LEADER approach.

[11] According to the Commission statement of estimates for the financial year 2015, overall resources available for rural development in 2015 will be slightly increased due to the plan of France, Latvia and the United Kingdom to move EUR 622 million from Pillar One to Pillar Two. This increase is partially counterbalanced by the plan of Poland, Croatia, Malta and Slovakia to transfer from Pillar Two to Pillar One some EUR 499 million.

- The implementation rationale that shall avoid the funding of inefficient farms and rather encourage competitiveness.

- The coordination of the different ESIF to avoid double funding.

- The capacity to put in place effective promotion activities and reaching out strategies (for example, by means of the Farm Advisory Service, local action, or the European Innovation Partnership) to ensure an equal distribution over the territory of available support.

From the perspective of disadvantaged milk producers, the major obstacle to implementation is isolation. ‘Being aware’ of available support schemes, as well as of funding or compensation opportunities, is by far the most important requirement. It is followed by ‘being willing to participate’. Lack of appreciation of expected advantages (for example, because complications are believed to outweigh potential benefits), ageing and/or lack of ambition of dairy farmers to expand (due to satisfactory profits or low competition from other land uses) or to change, may prevent participation. Finally, awareness and willingness may not be enough if milk producers lack the capacity to carry out the necessary changes.

5. MS most likely to be affected, suggested ESPON indicators and possible affected ESPON types of regions

5.1 List of countries affected

In the studies reviewed, different estimates were made of the countries likely to be most positively and negatively affected by the abolition of the quota system. Some analysts focused either on those countries where the quota limits are still binding and/or on the value of traded quota, while others attempted to take a wider range of factors into account. The results proposed in a few main studies are summarised in Table 3. The table also includes a tentative 'consensus view'.

The first column of Table 3 is based on the 2009 JRC study on the regional impact of milk quota elimination using the CAPRI model (see section 3.1.3 for the description and review of the model). The second column is based on the result of a modelling exercise using the partial equilibrium agricultural sector model ESIM included in the Commission's 2014 market outlook projections. This exercise made up-to-date estimates of quota rents in each MS using evidence on reactions to the development in milk price and the progressive quota increases from 2007 to 2012 (for the importance of the values of quota rents in driving the spatial impact of milk quota abolition, see the discussion of the CAPRI model results above). When no expansionary reaction to the quota increase was observed, it was assumed that the quota rent was zero. For those MS where there was an expansion in milk supply in response to the quota increases, the quota rent was estimated by comparing milk prices to FADN production margins. The study found that quota rents were zero for 16 MS and positive for the remaining 11.[12] Additional environmental constraints on increased production were introduced for the Netherlands and Italy. The third and fourth columns are derived from expert opinions commissioned as part of the Ernst & Young 2013 study for DG AGRI. De Haan and Zijlstra use a multi-criteria approach to evaluate the potential impact on 15 aggregated EU regions. In addition to the expected change in production based on quota rent estimates in the JRC study, they take into account milk production performance in the previous decade, estimates of the entrepreneurship and ambition of dairy farmers to expand, the profitability of dairy farms, the competitiveness of the dairy processing sector, environmental regulations, land prices and the growth of the local dairy market. Expert judgement is used to assign scores to the more

[12] *Ad hoc* modelling assumptions were made to adjust quota rents for Denmark and Ireland.

subjective criteria. Clausen also bases her assessment on a variety of factors. She takes into account natural and environmental conditions, the level of investment in dairy farms now and in the future, farm structure and structural developments, relative profitability of dairy farming, age structure and type of ownership.

In comparing the outcomes of these studies, it is important to note that not all studies use the same frame of reference. One frame of reference is to compare the situation in some future year, either 2020 or 2023, assuming the abolition of the milk quota in 2015 with a baseline scenario in which the milk quota is maintained. This frame of reference is used in the modelling studies. Its main strength is that it identifies the impact of quota removal separately from all other influences on future trends in regional milk production. A second frame of reference is to project forward changes in regional milk production in a no-quota situation compared to levels of milk production as they are today. Estimates produced on this basis take into account, in addition to the impact of quota abolition, also the long term trends in milk production by region. The strength of this approach is that it is more consistent with the way policymakers think about future developments. It tends to be the approach adopted by the experts in their opinions in the Ernst & Young study. These differences in approach must be kept in mind when comparing the results. In addition, in all cases, the projected country average changes conceal divergent production trends within countries.

Table 3: Impact of quota abolition on individual Member States

Countries where milk production is likely	JRC, 2009 (CAPRI *)	DG AGRI, 2013 (ESIM)	de Haan and Zijlstra (Ernst & Young, 2013)	Clausen (Ernst & Young, 2013)	Consensus view
to expand	AT, BE, DE, ES, HU, IE, LU, NL, PL, RO.	AT, BE, CY, DE, DK, EE, FR, IE, NL, PL, UK	BE, DE, DK, FR (Western France), IE, IT (Po valley), LU, NL, PL.	BE, LU, DK, IE, NL, and possibly also DE.	AT, BE, DE, DK, IE, LU, NL, PL.
to be largely **unaffected or where impact is uncertain**	DK, EL, FR, IT, PT + EU12 except for HU, PL, RO.	ES, IT, LV, LT, MT, PT, SI	Alps region (increases in Austria offset by decreases elsewhere).	AT, ES, FI, FR, IT, PT, SE, UK.	CY, EE, ES, *FR*, IT, LT, LV, MT, SI, PT, UK.
to contract	FI, SE, UK.	BG, CZ, EL, FI, HR, HU, RO, SE, SK	Baltic countries (EE, LV, LT) + FR (Central France), FI, SE, UK + East Central Europe (CZ, HU, SI, SK), BG, RO + Southern Europe (CY, EL, ES, IT except Po valley, MT, PT).	EU12 apart from CY, MT, and possibly not PL either.	BG, CZ, EL, FI, HR, HU, SE, SK, RO.

(*) Table 17, page 39 in JRC, 2009

There is a general consensus across studies on the group of the countries considered as expanding. UK has a fluctuating allocation and it ended up in the groups of the unaffected / uncertain due to high territorial variations of potential impact. On average, for the UK, the ESIM model forecasts an increase of production of a few percentage points only; on the other hand, de Haan and Zijlstra expect an average decline of some 7 percentage points in the country, while Clausen notes that even if production is likely to contract in the first instance, it is then expected to stay stable in the medium-term due to high levels of investments. To the same group of the unaffected / uncertain belong France, Italy, Portugal and Spain. As noted by Clausen, with the exception of France, these countries are characterised by generally older farmers and a low level of investments. Impact will then depend a lot on the capacity or interest to cope with changes. France is on the borderline with the expanding countries, but it has been grouped with the unaffected / uncertain due to the high regional variation. Cyprus, Estonia, Latvia, Lithuania, Malta and Slovenia are assigned to the unaffected/uncertain group based on the results of the CAPRI/ESIM models, as in the experts' opinion most of the EU12 (with the exception of Poland, and – according to Clausen only – Cyprus and Malta) are characterised by critical structural conditions such as small farm size, low investments and high competition from other agricultural activities. Finally, there is a general consensus across studies on classifying Finland, Sweden and, partially, Greece as contracting countries, while Croatia has been classified only by the ESIM model.

5.2 List of ESPON regional types and indicators that might be affected

ESPON, the European Observation Network for Territorial Development and Cohesion, has developed a QuickScan tool intended to allow a quick assessment of the territorial or regional impact of changes in EU policies. The tool includes both a typology of regions and a list of indicators. Table 4 reports our view on regional types and indicators that are believed to be relevant for monitoring purposes.

Table 4: Authors' view on the relevance of ESPON regional types and indicators

The following regional types among the list of ESPON regions are most likely to be affected by the abolition of milk quotas:	
Type of region	**Brief justification.**
Areas at highest technological / environmental risk	Higher risks imply higher uncertainty and hence less flexibility to price volatility.
Rural	Milk production is located in rural contexts.
Shrinking regions	Regions prone to abandonment or evident population ageing are likely to be less reactive to a more competitive environment.
Unprofitable farming	Regions where farming is unprofitable are likely to be less reactive to a more competitive environment.

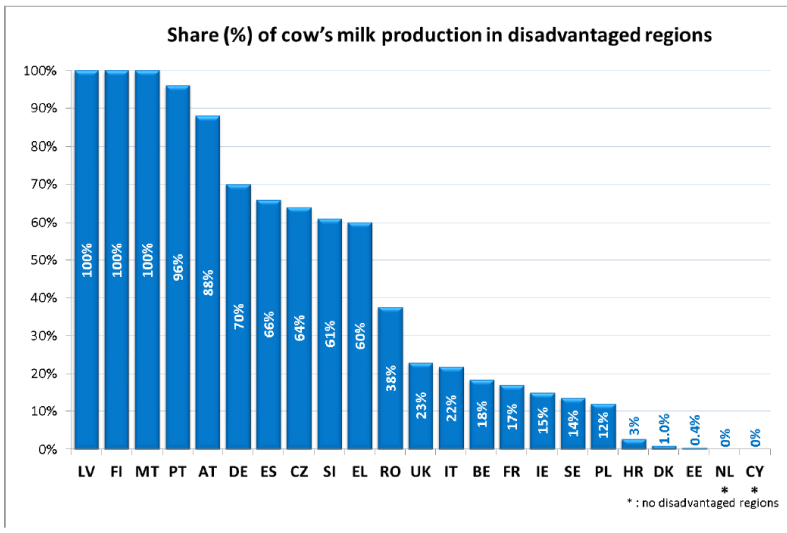
The following indicators on the QuickScan list are relevant in measuring the regional impact of the abolition of milk quotas:	
Indicator	**Monitoring purpose.**
Biodiversity	Proxy, indirect measurement of prevailing of intensive rearing practices.
Conservation of natural heritage (landscape diversity)	Proxy, indirect measurement of prevailing of intensive rearing practices.
Conservation of cultural heritage	Impact on traditional farming patterns.
Employment of primary sector	Impact on milk production labour market.
Disposable income in PPS/capita	Impact on the profitability of milk producers.
Out-migration / brain drain / 'shrinking' of regions	Impact in terms of abandonment of/relocation from no longer profitable milk production activities or unprofitable land.

The following indicators from Eurostat should be considered that are not currently on the ESPON QuickScan list:	
Indicator	**Justification**
Utilised agricultural area	One of the concerns identified in the literature is that the abolition of milk quotas could lead to land abandonment in fragile areas. This indicator would help to measure the extent of land abandonment in these regions. [*land use by NUTS 2 regions agr_r_landuse domain*]
Number of dairy farms	One of the concerns identified in the literature is that the abolition of milk quotas could lead to the cessation of dairy farming in more marginal and LFA, possibly leading to depopulation and farm consolidation. This trend would be measured by this indicator. [*Structure of agricultural holdings reg_ef_2010 and reg_ef_h domains*]
Gross value added at basic prices in agriculture, per annual work unit	This indicator would help to monitor the concerns expressed in the literature about the potential loss of a high-income farming activity in disadvantaged regions. [*domains agr_r_accts, aact_eaa01, ef_olfreg and aact_ali01*]

Appendix I – Complementary information

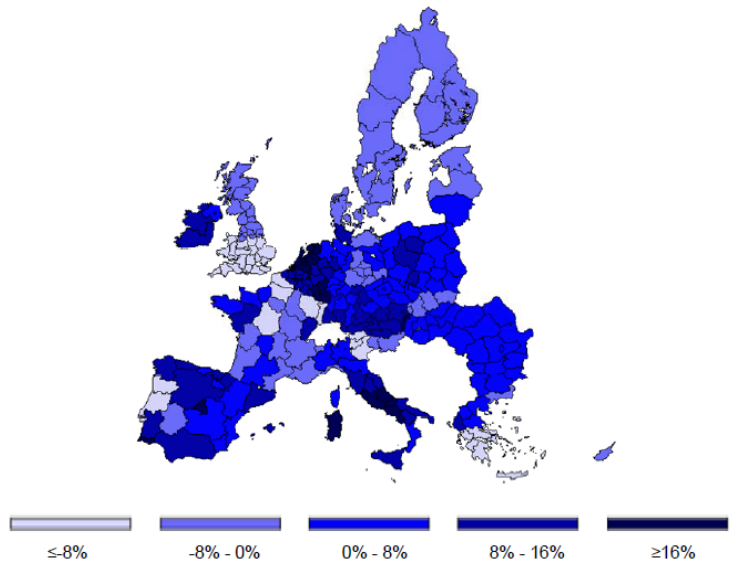
The below chart is from COM(2014)354. It reports on the share of milk produced in disadvantaged regions according to the replies of MS to a questionnaire and on the basis of different definitions of 'disadvantaged regions'.

Graph. 2 Milk production in disadvantaged regions

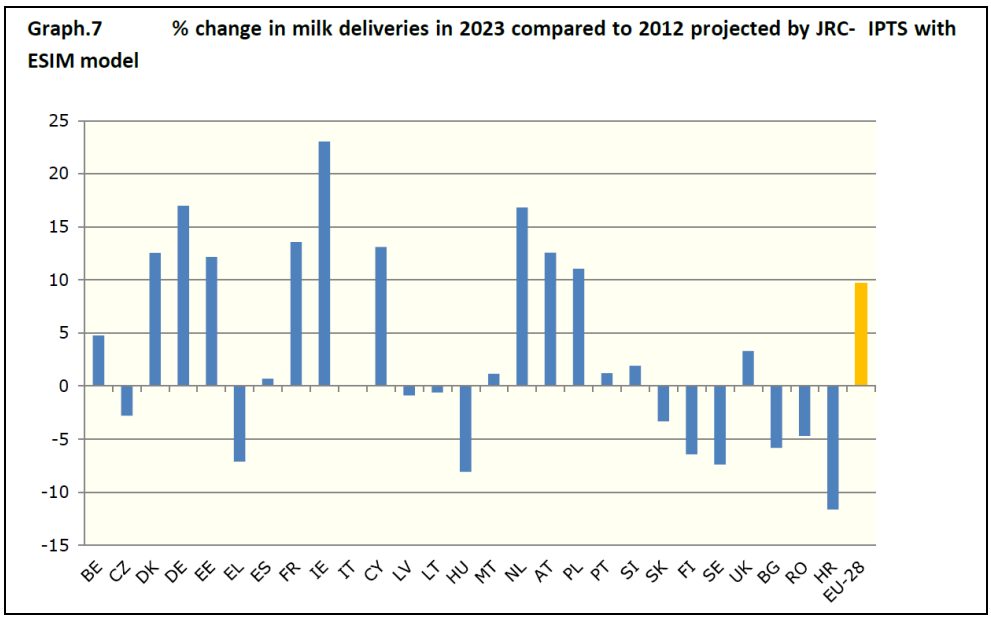


The following map is extracted from the JRC-IPTS report of 2009 and shows the effects at NUTS2 level on milk production according to the CAPRI quota abolition scenario.

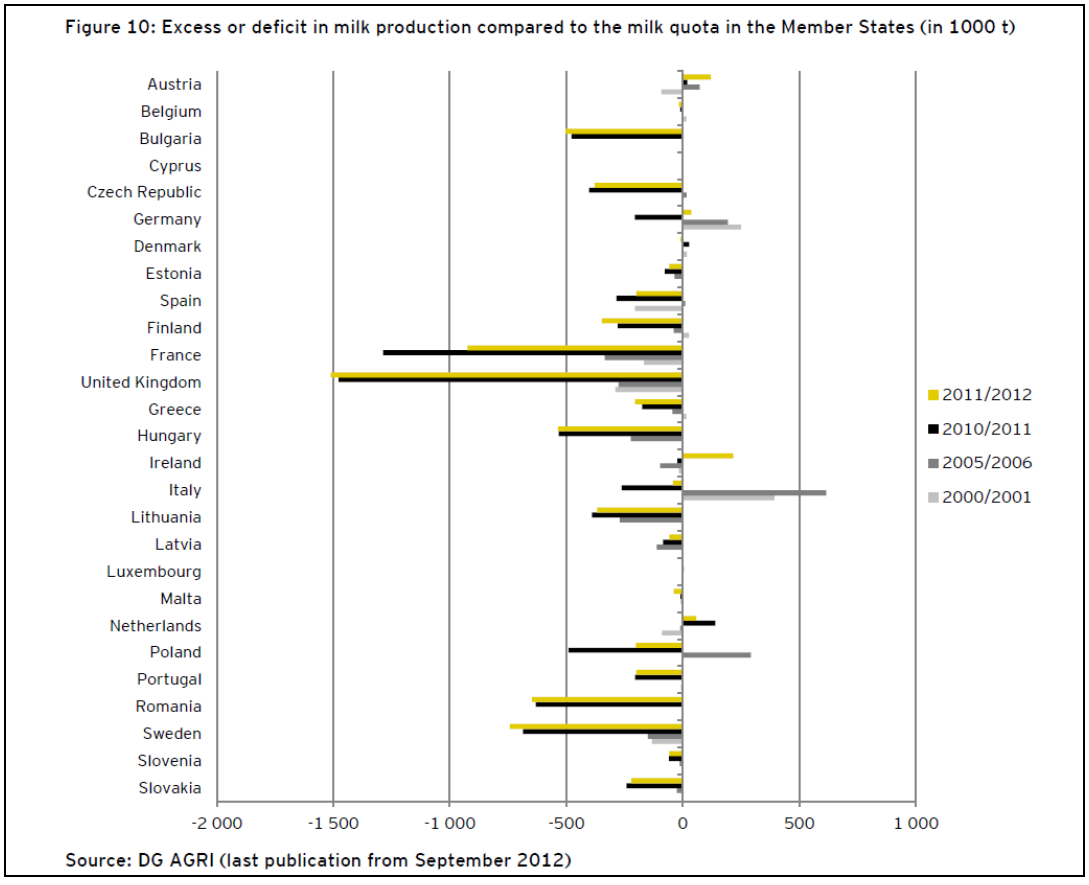
Figure 13: Percentage change of milk production in European regions



The below chart is extracted from the Commission staff working document accompanying COM(2014)354. It shows the milk production projections in 2023 using the ESIM model.



The below chart is extracted from the Ernst & Young report of 2013. It represents milk production of individual MS against their allocated milk quotas in various years.



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