



Towards an integrated approach to livestock farming, sustainable diets and the environment: challenges for the Common Agricultural Policy and the UK

By: David Baldock and David Mottershead

A report for



Eating Better

for a **fair** **green** **healthy** future

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CORRESPONDING AUTHOR

David Mottershead (dmottershead@ieep.eu)

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INSTITUTE FOR EUROPEAN ENVIRONMENTAL POLICY (IEEP)

London Office
11 Belgrave Road
IEEP Offices, Floor 3
London, SW1V 1RB
Tel: +44 (0) 20 7799 2244
Fax: +44 (0) 20 7799 2600

Brussels Office
Rue de la Science, 4
1000 Bruxelles, Belgium
Tel: +32 (0) 2738 7482
Fax: +32 (0) 2732 4004

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1 Foreword

Our food and agricultural systems face unprecedented challenges. How do we feed a growing and more affluent world population, healthily, fairly and sustainably, while at the same time, delivering on the crucial global deal made in Paris last December to keep global warming to no more than 1.5°C? In an uncertain world, one thing is for sure. We have to recognise the vital role that dietary change can deliver for climate, the environment and our health.

Essential to that goal is modifying the way we, in developed economy countries in the EU and UK, eat to shift to healthier sustainable diets with lower levels of livestock products than currently consumed.

But in order to catalyse this necessary transition, we first need to understand the drivers influencing current and predicted consumption and production – whether that’s individual habits and cultural norms, out-dated government policies or the economic incentives that underpin our food and farming systems.

Our mission within the Eating Better Alliance is to build consensus and develop collaborative practical approaches to engage policy makers, food businesses and civil society in catalysing shifts towards healthy and sustainable eating patterns.

The research that we commissioned from IEEP has been designed to shine a spotlight and bring greater transparency to an area of fiscal policy that remains mysterious to many – the Common Agricultural Policy (CAP). We asked: how does the CAP and other EU trade policies influence the consumption and production of meat and dairy foods? And what policy changes to CAP and future agricultural policies could shift livestock production and consumption onto a more sustainable, ethical and healthful pathway?

We want to understand – and help others to understand – what changes would offer stronger incentives for shifting our consumption towards less and better meat and dairy and more plant-based eating. Our purpose is to offer this research as a starting point to engage policy makers, the food and farming sectors as well as within our own civil society networks at a crucial time.

When we first commissioned this research we intended to inform forthcoming mid-term review of the CAP. The UK Brexit vote now provides a further opportunity to consider how our agricultural support mechanisms can evolve post-CAP to ensure public money delivers public goods for public health, environmental enhancement and mitigating climate change.

We welcome feedback.

Clare Oxborrow, Chair Eating Better Alliance.

2 Introduction

This report considers the evolution of policies for livestock farming in the Common Agricultural Policy (CAP) in recent years, assesses how far these are changed by the current, “greener” CAP and looks to the future. In doing so it takes account of changing perceptions of the costs and benefits of livestock farming in relation to climate change and public health in particular. Whilst the primary focus is on the CAP and European policy, it also refers to the options facing the UK, which is now debating what forms of national policy might be introduced after Brexit, a step which will take the UK outside the CAP.

Livestock production is a central element in EU farming. It accounts for about 70 per cent of the land in agriculture, when feed supply is included, and 40 per cent of the value of total output. Aside from its economic importance, it has played a significant part in shaping rural environments and landscapes, local cultures and traditions in both highlands and lowlands in much of Europe. This cultural and environmental role has changed in recent decades however, alongside a transformation in production, including increases in specialisation, concentration and intensification in most sectors (Van Vliet et al, 2015). The environmental footprint of livestock production and consumption is coming under increasing scrutiny, more so as the spotlight turns to the best means of reducing greenhouse gas emissions from farming over the next decades. Livestock production accounts for a major share of such emissions.

Alongside this is a growing concern about making a transition to healthy, “sustainable” diets. These are diets which have a relatively low environmental impact as well as being consistent with good health (Fischer and Garnett 2016). They are likely to contain a lower level of livestock products than in the average European diet today. Four countries that have published diet guidelines with a sustainability component (Brazil, Germany, Qatar and Sweden) offer similar advice, including the moderation of meat and dairy consumption, limiting red meat consumption in particular (ibid). The UK Government’s recent “Eatwell” guide encourages people to consume no more than 70g per day of red¹ and processed meat (UK Government. The Eat well Guide. [Online] March 2016) - an amount that is exceeded by many.

Despite these emerging concerns, the European Commission is forecasting a broadly stable or increasing pattern of production by Europe’s livestock farmers in the period up to 2025. This is partly driven by export prospects. Indeed exports are already a significant part of the market for EU pig meat (13% by value) and poultry (9%). For example, most of a forecast of 4% expansion in poultry production is expected to be driven by the export market. However, in the domestic market meat consumption in the EU is expected to decline only very

¹ Red meat includes beef, sheep meat and pork.

marginally by 2025 to an average of 66.7 kg per capita (similar to 2008), with poultry meat increasing its share.²

Regardless of the value of such forecasts, they illustrate the extent to which important sectors of livestock production in Europe are expected to continue on their present path, driven primarily by global as well as local markets, with a smaller role for policy; the expected growth of exports in the intensive livestock sector is a case in point. A decline in European consumption of livestock products would not necessarily lead to a parallel drop in production on farms.

However, sheep, cattle, goat and milk production are more dependent on policy interventions and the historical tendency within the CAP to try to protect the livelihoods of farmers³. This is a legitimate goal, but not the only one to be considered. A strong focus on protecting the livelihoods of farmers in key sectors means that, rather than allowing livestock numbers to adjust to changing patterns of demand, the EU and many EU Member States are paying in a variety of ways to keep them closer to current levels. This remains a feature of the Common Agricultural Policy and a challenge, particularly after a period of reform in which financial support for agriculture is supposed to have been mainly “decoupled” from the output of specific products, thereby making it more neutral in its influence on food availability, consumption and diet. It is also an issue for current and anticipated trade negotiations which will determine the extent to which Europe’s (and, in future, the UK’s) markets in livestock produce will be opened up to greater competition from abroad.

There is thus a risk that agriculture policy in the EU and, in future, in the UK fails to pay sufficient attention to the wider context in which farming takes place. Food, public health and environmental issues such as the conservation of biodiversity, soil health and functionality, water quality and flood control, landscape management and climate change are increasingly prominent and livestock farming, including both meat and dairy production, poses challenges in each of these spheres.

Questions about the advantages and drawbacks of livestock production seem likely to multiply and become more focused as these debates move forward. For example, does Europe continue to produce livestock on the current scale if consumption falls in line with so much of dietary advice? And whatever the level of production, to what extent should public policy seek to ensure that it occurs in specific places and using certain systems rather than others? Both environmental and social reasons often are given as justifications for the way CAP support is targeted, but the evidence that desirable environmental impacts are being secured is sometimes lacking, and dietary and health issues are rarely addressed at all (Dangour et al 2013).

² The model also projects a 40% increase in EU protein crop production as a response both to demand in the intensive livestock sector and CAP policy initiatives, notably coupled payments and the recent “Greening “ of direct payments which can include incentives to grow these crops. (European Commission 2016: Prospects for EU agricultural markets and income 2015-2025).

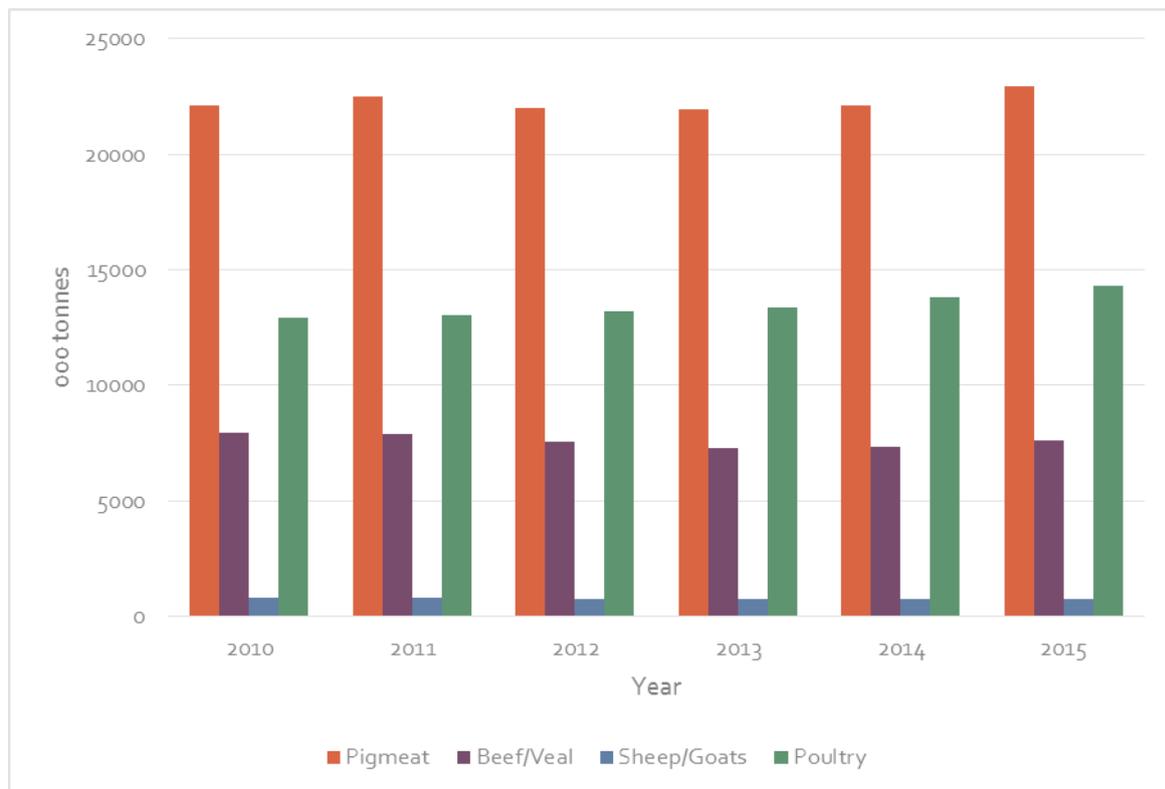
³ Including, of course, those other than livestock farmers.

3 Production trends and the new CAP

In the early decades of the CAP, active support for agricultural production in the EU was based mainly on market intervention, intended to keep the price of certain commodities above a minimum price with the aim of maintaining output in Europe above the level it would have been without intervention. This led to surpluses of some products and new policies to control these, such as milk quotas. However, a new approach has been introduced, particularly since 2003, based on the principle of supporting active farming per se rather than directly incentivizing output. Under this “decoupled” approach support is mainly paid directly to farmers per hectare farmed rather than in relation to how much is produced. Milk quotas have been removed and market forces are having a more powerful influence on the livestock sector- and elsewhere (OECD 2011).

The levels of meat and dairy production and livestock numbers track each other closely and are shown in Figures 1 and 2 below. Pig and poultry production accounts for around 36 million tonnes annually or over four fifths of European meat production by weight, with ruminant meat from bovine animals, sheep and goats a smaller proportion at around 8.5 million tonnes.

Figure 1: EU meat production 2010-2015

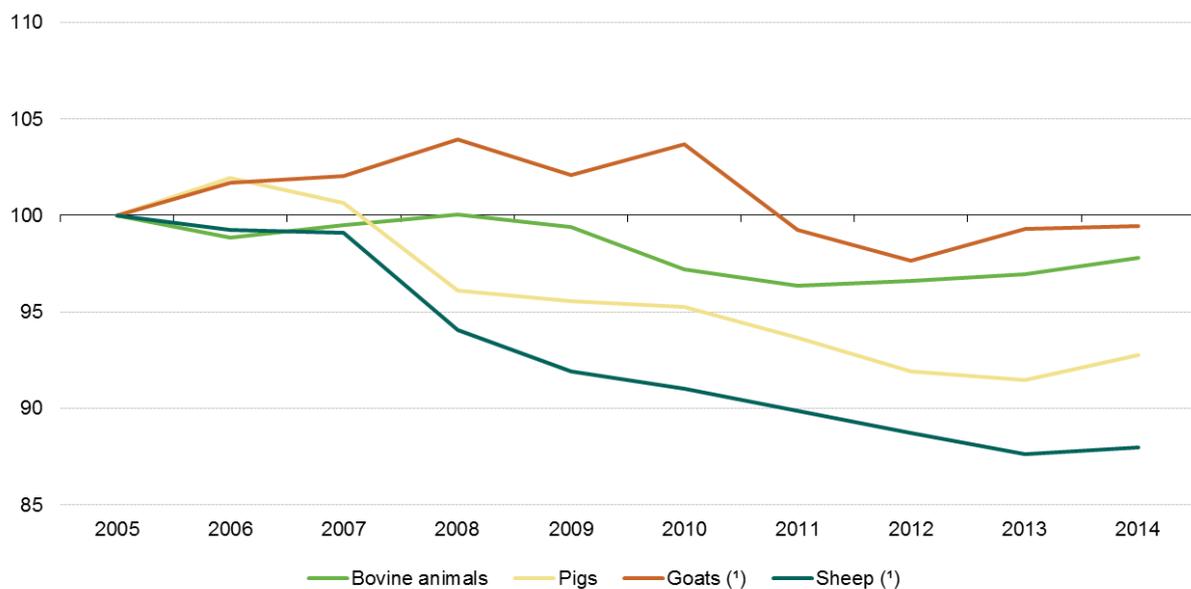


Source: Eurostat (apro_mt database)

Figure 1 shows that these levels of production have been fairly stable in recent years, with only a slight decline in the production of meat from ruminants, and a modest rising trend in

the production of pig meat. Livestock numbers have also been fairly stable but with a decline since 2007 for pigs and sheep in particular, starting to reverse in 2012/2013. Figure 2 shows that the trends in numbers of cows, sheep, goats and pigs are not all the same and in some cases are still close to their 2005 levels (EU level figures for poultry numbers are not available).

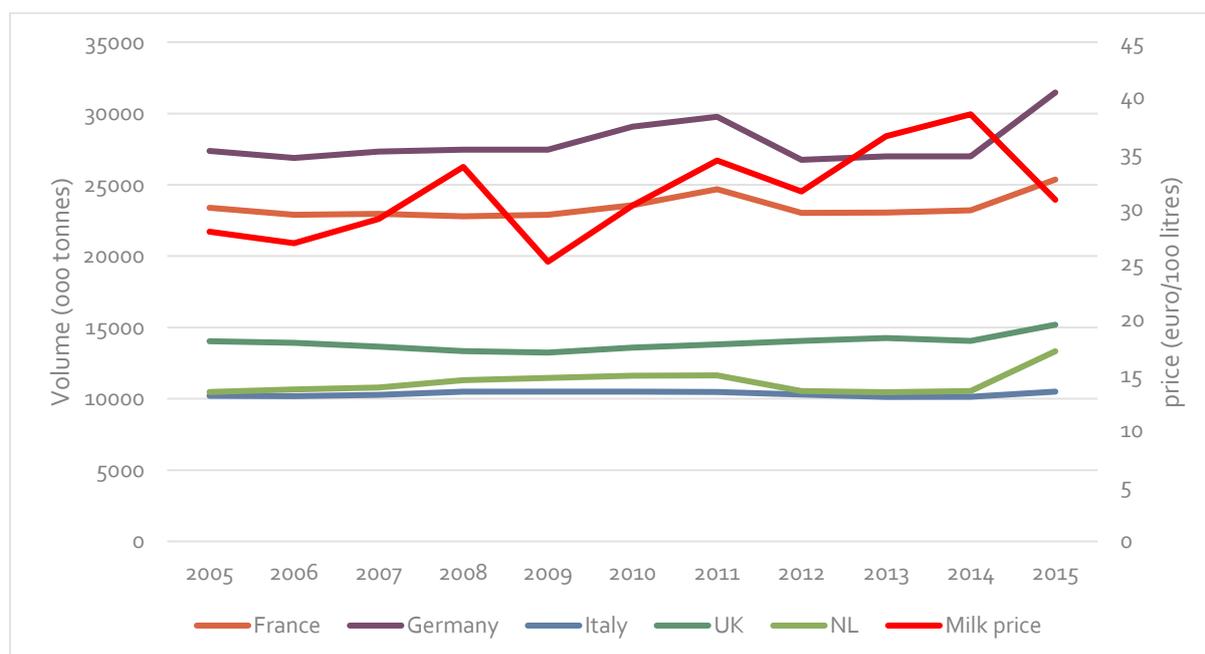
Figure 2: EU livestock numbers 2005-2014



Source: Eurostat (apro database)

Figure 3 shows milk production in the five largest milk-producing Member States (a full time series for the EU-28 is not available). Volume production data is shown alongside the average milk price in the EU over the same period. From 1984 until 2015, the amount of milk EU farmers were allowed to deliver to the market (as opposed to selling directly to consumers) was effectively restricted by quotas. Figure 3 shows how milk prices responded to consumer demand during the period when quotas applied, and how they have responded to increased production once quotas were removed. Prices moved at times quite sharply during the period up to 2014, despite the fact that supply was restricted by quotas. More recently, farmers in many Member States appear to have responded to the ending of quotas by producing more. This and the Russian embargo on EU exports helped to exacerbate the downturn in prices that occurred over a considerable part of 2016.

Figure 3: Milk Production in the five largest EU producers



Source: Eurostat (apro_mk database)

Taken together, the data on production and livestock numbers paints a picture of market forces driving an industry in which production – given the weight of the pork and poultry sectors – is on a stable or gently upwards trend, while livestock numbers as a whole have declined until recently but not at a rapid pace. The greatest decline is in the sheep sector, where production is least intensive. There is a similar message from the Commission’s medium term forecast. It is noteworthy that decoupling Common Agricultural Policy payments from production – a process which began in 2003 has not led to a sustained decline in the number of bovine animals although it has almost certainly been a factor in the continuous decline in sheep and goat numbers.

The implications of this picture for diet, public health and the environment are complex. Two key areas of policy that influence outcomes are the ways in which farmers are incentivized by the CAP to manage their land and livestock, and the tariffs and other trade arrangements that affect levels of exports and imports, with their respective impacts on consumer prices and the environmental footprint of production. Trade issues are particularly topical in the UK given uncertainties about the approach to be taken post Brexit. In the following sections of this report, therefore, we consider first how the CAP influences the ways in which livestock is farmed within Europe, and then some trade questions.

4 The current support for livestock through the Common Agricultural Policy

The main elements of support to EU farmers as they stand post the 2013 changes to the Common Agricultural Policy are shown in Table 1

Table 1: Support under the Common Agricultural Policy

TYPE OF SUPPORT	MECHANISM	COMMENTS
Generic support for EU agriculture	Direct payments (now includes greening payments)	Mostly based on farmed area Subject to cross compliance
Commodity support for livestock products	Border tariffs Safety net arrangements for some products (e.g. CMO regulation)	Less than historically but still have a role
Support for economically more marginal agricultural zones (about 55% of the farmed area)	Annual payments for farmers in "areas of natural constraints"	In many countries the majority of this land is dedicated to livestock production
Payments explicitly linked to the production of livestock (or milking cows)	CAP Voluntary Coupled Payment Scheme, particularly aids beef, dairy, sheep and goat producers in certain countries	Half of all dairy cattle in the EU receive coupled support
Subsidies for investments and improvements on farms	Aid is available for a range of farm land investment, including on livestock farms, through rural development programmes (CAP Pillar 2)	Assists modernisation of different kinds; intensive pig and poultry producers are not eligible for some schemes
Payments for environmental management on farms, including the practice of organic farming	Agri-environmental and organic support schemes within CAP rural development programmes (Pillar 2)	Most livestock farming recipients will be less intensive producers, including sizeable areas grazed by sheep, cattle (some horses)
Aid for food processing, marketing, etc. (including for livestock products)	Various aid schemes within rural development programmes	Highly diverse aids; difficult to identify the proportion applicable to livestock products
Aid for consuming livestock products	The EU School Milk Scheme (not part of the CAP)	Voluntary for Member States (annual budget of €100 million)

4.1 Financial Support

Financial Support for the livestock and arable sectors is delivered through the system of direct payments which is now the key policy within the CAP. The budget for such payments over seven years from 2013 is €252 billion (DG AGRI, 2017a) which would be sufficient to pay each farmer €3300 a year although there are very wide variations in the actual amounts individual farmers receive both between different Member States, and within a Member State. The principal elements of the direct payments regime (which sits within Pillar I of the CAP) are:

- **A basic direct payment** reflecting the amount of farmed land a farmer has at his/her disposal as well as, in most of the older (pre 2004) EU Member States, the amount of money a farmer used to receive from the CAP in the past. These payments are not linked to the level of production but the farmer must maintain the land so that production remains possible, and also meet the requirements of cross-compliance. The effect of cross-compliance is to link the payment to the observance of both selected legislation dealing with pollution and animal welfare, and to standards of good agricultural and environmental practice laid down by the Member State. Since 2015 it has been possible to redistribute payments towards smaller farms, and Member States which do not do so on a significant enough scale have been required to cap the largest payments to individual farmers. None of the four countries making up the UK has introduced a redistributive payment so they must all apply a cap;
- **A greening payment** worth 30% of the total CAP budget available for direct payments. Most Member States allocate these pro rata to basic direct payments, so they reflect any historic entitlements. Certified organic farmers receive the greening payment as of right, whilst a number of smaller farms receive it without needing to meet its requirements. For other predominantly arable farmers with an arable area above a certain size greening requires crop diversification and compliance with rules covering “ecological focus areas” (intended to encourage biodiversity in particular) whilst livestock and other farmers managing “permanent”⁴ grassland may be affected by rules aiming to retain it, primarily at the national level. In some cases they may not be permitted to plough it;
- **Voluntary coupled payments** which are paid where a Member State wishes to maintain the production of certain crops or livestock levels. These are important in the dairy and beef sectors, as described below.

In addition to direct payments, Member States receive funding under Pillar II of the CAP for their **Rural Development Programmes** (RDPs). Total funding available across the EU is €95 billion for 2014-2020 compared to the €252 billion for direct payments. In contrast to direct

⁴ Permanent grassland is defined in the CAP regulations as “land used to grow grasses or other herbaceous forage naturally (self-seeded) or through cultivation (sown) and that has not been included in the crop rotation of the holding for five years or more; it may include other species such as shrubs and/or trees which can be grazed provided that the grasses and other herbaceous forage remain predominant as well as, where Member States so decide, land which can be grazed and which forms part of established local practices where grasses and other herbaceous forage are traditionally not predominant in grazing areas”. It is distinct from “temporary grassland” – grassland which has been used for cropping within the previous five years – arable land and land used for permanent crops such as fruit.

payments, measures in RDPs can be targeted much more closely, for example to farmers who sign agri-environment- climate agreements, or organic farmers. In addition Member States may make payments to farmers in areas where agricultural production is more challenging , now known as “Areas with Natural Constraints” and previously as “**less favoured areas**”. These amount to about half the total area of farmland in the EU. Most of the funds for this are derived from national budgets for Rural Development with Member States having collectively earmarked €27 billion for this purpose, generally with the aim of maintaining the mainly extensive farming activity in the uplands, mountainous and remote areas. This is intended to help maintain agriculture and pastoral systems in general terms and keep land in agriculture rather than the alternatives which include forests, abandonment/reversion to nature and urbanisation. Payments are not targeted so as to support any specific environmental goals however and in some areas alternative forms of land management might be preferable in environmental terms so this is a very broad brush measure.

Aid can also be granted for capital investment on farms for a wide range of purposes, both commercial and environmental. The agri-environmental component of RDPs is sizeable in most Member States, including the UK where it ranges from 19% in Scotland (which also devotes 36% of its RDP budget to Areas of Natural Constraint) to over 70% in England (ENRD 2017). In many areas livestock farmers, especially beef and sheep producers, receive a large proportion of the budget, given their key role in managing grazed habitats. However, agri-environment-climate payments are subject to relatively restrictive rules derived from World Trade Organisation agreements such that they should not be used to increase the profitability of farms. Payments are limited to compensation for the costs and any income foregone from taking on environmental obligations, either to maintain or change current practices.

Livestock farmers also benefit – along with other farmers – from the support the CAP provides to market development. A **quality policy** protects agricultural “brands” such as Welsh lamb or Melton Mowbray pies, whilst the CAP provides an increasing level of support to the promotion of agricultural produce. Whilst this is described by the Commission as primarily intended to develop export markets, the budget of over €130m is allocated based on bids from marketing organisations and others and may also support promotions within Europe. For instance, the Commission in 2014 put €2.4m towards the cost of a €7.4m campaign using sports personalities to promote milk consumption in Denmark, Ireland, France and the UK (EUobserver, 2014). Whilst such assistance is also used to promote diverse and potentially healthier alternatives such as fruit, vegetables and organic meat, its intervention logic is to grow the market for what European farmers produce rather than to meet the needs of consumers in a broader sense.

The EU’s support for **School Milk and School Fruit schemes**, worth a combined €250m per year, is being restructured to better meet the aims of preventing obesity, promoting healthy diets and encouraging long term consumption habits which favour milk products and fruit. Although administered by DG AGRI, it sits outside the CAP and is one of the very few elements of support to agriculture which explicitly addresses issues of health.

A fuller description of the different elements of the CAP which support livestock farming is at Annex 1

The livestock sector continues to be a major beneficiary of direct payments, particularly in the grazing livestock sector where direct payments represent approximately 55% of income for EU farmers as a whole. In England the corresponding figure is 69%, with direct payments almost equalling the net farm business income of the non-dairy grazing sector as a whole (Defra 2016). Support to pig and poultry farming is lower than for beef or sheep farming for historic reasons and because this type of production uses less land. In the newer Member States such as Poland and Romania basic direct payments do not reflect past levels of production.

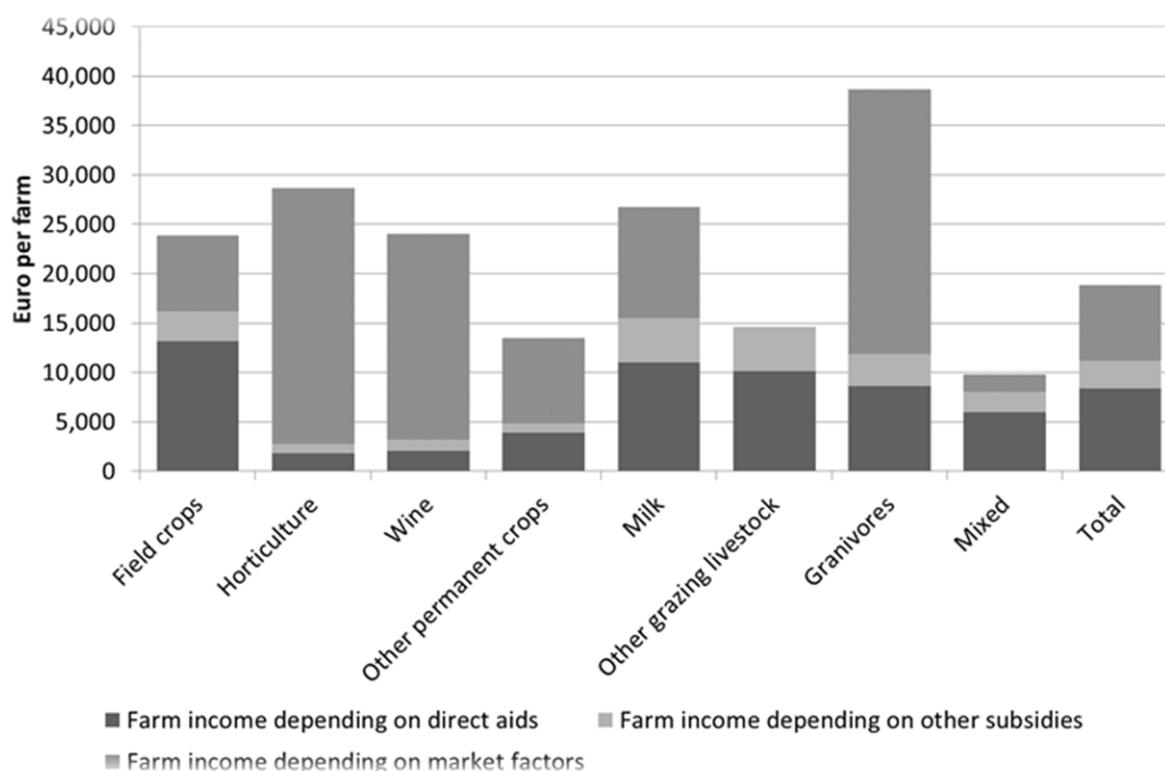
Within the EU15 ruminant sector, direct payments are generally focused on more intensive producers because payments in the past were based on production volumes. Prior to 2003 payment in the then 15 Member States was mainly linked to output or the number of livestock kept on the farm for beef animals and sheep, although not for poultry and pigs. These benefited instead from relatively low imported feed prices; most of these supplies are subject to low import tariffs as a result of international trade agreements one purpose of which was to keep the sectors competitive in the face of relatively expensive European cereals. Larger, more productive and often more intensive farms with cattle and sheep consequently received more of their CAP support in the form of direct, coupled payments.

When coupled payments began to be phased out, in 2003, farmers were compensated for the loss of their payment with an entitlement to a continuing level of direct payments based on their previous receipts but no longer varying with the amount produced. Most Member States – including Scotland, Wales and Northern Ireland continue to make such historic payments and their continuing impact is evident in the livestock sector. Expenditure on direct payments is far more concentrated in the lowlands where yields are higher and production more intensive, both for livestock and arable. Whilst Member States are now required to equalise levels of historic payment to some extent by 2019, they are allowed to retain a degree of distortion in this sense and, importantly, can create different regions within their territories with differing levels of payment so as to largely preserve an existing pattern. This means that the distribution of direct payments to farmers is likely to reflect past higher yields and scale of production for a considerable time to come.

Figure 4, which shows sources of income (market, direct CAP payments, other subsidies) for farming as a whole, demonstrates how in the case of the livestock sector this pattern of support is focused to a greater extent on the ruminant rather than the granivore⁵ sector.

⁵ A granivore is a grain fed animal. In the context of this report the term refers to pigs and poultry.

Figure 4: Sources of farm income by sector

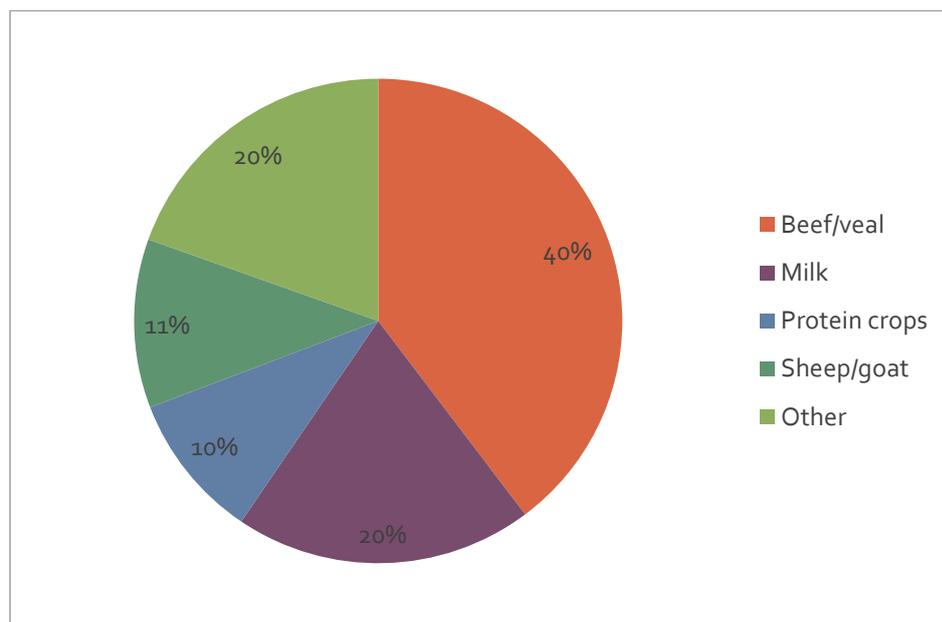


Source: Alan Matthews (2016a) based on FADN data

The table shows how the more economically vulnerable sheep, goat and outdoor beef sectors receive a higher proportion of their income directly from the CAP than do the intensive pig and poultry sectors. The latter generate considerably higher incomes, particularly per unit of labour, but nonetheless still receive a significant share of their income from direct payments. In this sense the support system is more focused on the ruminant sector, especially dairy and beef cattle, than it is on pigs and poultry. There are similar differences in the non-livestock sectors. Horticulture and wine, for example, derive almost all of their income from the market whilst arable farming derives more than half of its income from direct payments alone.

In addition (and in practice perhaps by way of compensation for the pattern of support which results from historic factors), voluntary coupled payments are focused heavily, by those Member States which offer them, on the ruminant sector. Over €2.9 billion was provided in this way in 2015, and as Figure 5 shows, support to the ruminant sector was by far the largest element of coupled support in the EU as a whole. Within the UK only Scotland uses coupled payments, which are made to the suckler beef sector and for sheep farmed on rough grazing areas.

Figure 5: Distribution of coupled support in the EU



Source: DG Agri, based on notifications by Member States

The dairy sector enjoys the distinction of being supported not just by basic direct payments (usually reflecting past production) and by voluntary coupled payments (intended to maintain current production) but also by a special fund introduced by the Commission in 2016 to pay farmers to reduce milk production in the face of a sharp reduction in world prices. (EC 2016b).

The basis on which coupled payments may be offered to farmers has changed as a result of the 2013 reform. Whereas in the past they were a means of increasing production levels, the measure has now been redesigned and can in principle only support existing production, and then only when there is a threat that land will be abandoned, the production chain left without sufficient supply or that other adverse impacts on the market will occur. However, there is some flexibility since “existing production” is defined by reference to historic indicators which do not always correspond to current reality. Member States are required to explain to the Commission why they are using voluntary coupled payments, but the Commission does not approve them. The aggregate effect of individual Member States’ decisions on coupled payments can produce results which exacerbate the problems they are seeking to solve. In the dairy industry, for example, where farmers are suffering from low prices, coupled payments are helping to keep supply artificially high. Shows the numbers of Member States which make such payments to their dairy farmers along with the scope each Member State has to pay for additional production beyond what is happening now.

Table 2: Coupled payments to the dairy sector

Country	Quantitative Limit (head)	Amount per Head, 2016 (€)	Total Amount of Aid, 2016 (€ million)	No. of Dairy Cows, 2013 (head)	Limit as % of 2013 herd (%)
France	3,660,000	34-86	134.66	3,737,180	98
Poland	2,678,000	57	152.68	2,343,530	114
Italy	2,190,152	31-39	83.87	1,762,460	124
Spain	850,823	61-142	93.58	876,070	97
Czech Republic	399,518	126	50.35	369,980	108
Lithuania	310,408	82	25.31	318,140	98
Romania	300,000	272	81.50	1,147,320	26
Hungary	230,000	300	68.93	241,010	95
Bulgaria	194,923	123	23.92	314,670	62
Slovakia	166,000	201	33.43	145,520	114
Portugal	151,831	82	12.50	264,790	57
Croatia	131,000	73	9.55	172,920	76
Belgium Wl.	121,175	27	3.32	188,600	64
Latvia	84,501	167	14.10	166,560	51
Finland	63,489	497-728	32.00	283,120	22
Slovenia	39,139	122	4.79	103,850	38
Estonia	20,246	100	2.02	96,050	21
Malta	6,381	244	1.56	6,240	102
Total EU	11,597,946		828.07	23,212,230	50

Source: Member State notifications to DG Agri

Export refunds on European products which were not competitive on the world market without a subsidy were a major source of CAP expenditure in the 1980s and 1990s and an important form of support for the dairy sector for example. However, they have been much reduced since the 2003 reform and are now largely eliminated except under crisis conditions.

5 Targeting support on public benefit?

Support to elements of livestock farming - and particularly to sheep and that portion of the beef cattle herd which is farmed extensively - is often argued to result in a range of public goods and particularly social and environmental benefits. There is a clear connection between livestock production and the management of grassland and other semi-natural vegetation in many areas of Europe, including the UK, as confirmed by the literature on High Nature Value farmland (Keenleyside et al 2014). This is an important aspect of intervention under the CAP. While the merits of the CAP as a policy to support rural livelihoods are beyond the scope of this report, some key environmental and animal welfare considerations in policies for the livestock sector are considered in this section.

The distribution of most support under Pillar I of the CAP to farmers reflects a combination of historic patterns, competitiveness concerns and administrative logic. Whilst the principle of paying for public goods rather than simply for farming per se has gained ground in the CAP in recent years, with thirty per cent of the Pillar I budget being devoted to “Greening “ measures since 2014, the alignment of support regimes to such priorities has lagged behind. The tendency has been to avoid major changes in the pattern of CAP expenditure that would be to the detriment of current recipients. This applies to payment rates, the limits on payments per farm and other mechanisms. Basic direct payments, payable per hectare, are not designed with the aim of selectively favouring farms with higher environmental or animal welfare standards for example, although claiming the payments requires of most farmers that they observe a number of rules (“cross compliance”). A significant number of farmers have to undertake greening measures (discussed further below) following rules where national authorities have considerable discretion, determining how demanding they are in environmental terms.

5.1 Pillar 1 greening measures

The new greening payment, applying from 2015, denotes a portion of most farmers’ receipts as being at least in part a reward for providing environmental services. There are three measures intended to encourage crop diversification, the retention of (carbon rich) permanent grassland and the provision of “ecological focus areas” – areas of arable land managed in ways which encourage biodiversity in particular.

Payments are fixed as a percentage of a farmer’s basic direct payment rather than varying according to the amount of or cost of the environmental services provided. A closer link could have been achieved by basing the greening payment directly on the area of land a farmer has, rather than as a proportion of the value of the basic payment, but only Scotland and Luxembourg have chosen to do that⁶. The result is that farmers with higher (per hectare)

⁶ The direct payment regulation (1307/2013 EC) envisages that Member States (or regions, where a Member State has chosen to make the distribution of basic direct payments at the regional level, as is the case in the UK) will pay greening payments pro rata to land held by the farmer. Member States are allowed, however, to reflect

rates of basic payments also receive higher greening payments, even though they are not required to do more for the environment than other farmers.

Farmers in the uplands and mountains, most of whom are partly or wholly livestock producers, (both in the UK and in many other parts of Europe), predominantly receive significantly lower basic payments per hectare than their lowland counterparts. At the same time they manage a large proportion of the farmland of High Nature Value in Europe so make a substantial contribution to public goods provision. The level of the greening payment does not recognise this

The greening measures' anticipated impact is more on arable than livestock production. Only the measure to protect permanent grassland or pasture is relatively specific to livestock farms although larger mixed farms and livestock producers with arable crops including maize and barley may be affected by all three measures. The permanent grassland measure has the scope - by restricting ploughing - to protect a sizeable area of grassland of conservation value. However, Member States have a choice as to how extensively to apply such a restriction and most have chosen to apply the ploughing ban to a relatively small proportion of the land of conservation value they might potentially have protected (Hart 2016). Within the UK only Wales has chosen to apply additional protection to permanent grassland outside the areas it already protects under the Birds or Habitats Directives.

Box 1: protecting permanent grassland through CAP greening measures

The greening measure works by restricting the extent to which permanent grassland can be ploughed. Preventing grassland from being ploughed avoids greenhouse gas emissions and ensures that carbon remains locked in the soil, whilst applying such protection to grassland of conservation value can also help to preserve valuable habitats. By contrast, if "permanent" grassland can be ploughed and reseeded, few environmental benefits can be anticipated from its "protection".

The CAP greening measure to maintain permanent grassland works in two ways. First it requires farmers to protect permanent grassland (whilst permitting conversion of up to 5% to arable, and allowing ploughing followed by reseeded of the rest). Member States are not required to operate an authorization system for ploughing (although some do) but must be in a position to ensure that if too much land is ploughed without being reseeded as grass, it is restored to grassland.

Member States must also designate areas where ploughing is banned within the zones they already protect under Natura 2000 - the European Directives requiring the protection of birds and habitats. They may also impose a ploughing ban outside these zones for a wide variety of reasons, including the protection of carbon-rich peatlands and wetlands, areas of high nature value and soils vulnerable to erosion. But Member States have discretion over how extensively within the protected zones they should ban ploughing, and are not required to apply a ban outside these zones at all. Because Member States have in general

the existing distribution of basic direct payments when making greening payments, so that farmers with higher historic entitlements receive more and vice versa. Of the Member States or regions in which historic payments still exist, only Scotland and Luxembourg have declined to make payments in this way.

taken a cautious approach to the imposition of ploughing bans, it remains open to many livestock farmers to switch to a more intensive system of grass production if they choose. Within the UK Wales has banned ploughing in some areas outside its Natura zones, but other countries – despite high stocks of carbon-rich soils – have not.

Apart from these restrictions - such as they are - on ploughing, CAP greening places no further demands on livestock farmers unless they also own arable land. By managing permanent grassland livestock farmers are assumed to be generating public goods in the form of biodiversity and carbon sequestration for which the greening payment is a reward. It does not address other environmental impacts of livestock farming such as greenhouse gas emissions.

5.2 Animal Welfare and the CAP

The CAP also contains modest incentives to maintain standards of animal welfare. Under cross compliance, farmers who do not comply with the requirements of the EU's Directives on the welfare of farm animals, pigs and calves are at risk of losing part of their payment. However, the standards themselves are unambitious in many respects (see Annex 2) The CAP also has a relatively developed food marketing policy but the promotion of high standards of welfare is not at its heart. For example there are well established mechanisms for protecting the names and descriptions of selected and distinctive agricultural products but these appear to be largely blind to considerations of animal welfare unless they affect the finished product⁷. Private standards (those adopted by farmers and retailers to enable consumers to identify produce with preferred characteristics) often require higher standards of welfare, but these exist alongside the CAP rather than because of any requirements within it.

5.3 Scope for change

There is scope to realign financial support for livestock and other farmers much more to environmental and social public priorities in the next round of CAP reform. This applies equally and more immediately in the countries of the UK where new policies are being debated for the period after the country leaves the EU. At the same time it is necessary to identify and promote alternative ways (besides payments from public funds to farmers) to incentivise environmentally sustainable production, since public budgets are limited.

It seems unlikely that budgets to support farming and land management will expand either in the CAP or in the UK in the next few years and the general expectation is for them to contract despite the considerable challenges to be met. But there is scope to rebalance how subsidies are distributed between different farms and ensure they compensate farmers for the services that they deliver. There are also opportunities to harness more private sector money for environmentally focused management of pasture and other farmland from those who derive benefits, such as water companies and tourists. Structures to facilitate this are going to be required if new private funds are to be deployed on a significant scale and need to be considered urgently by policymakers. In addition there is scope for market

⁷ See the example of foie gras in Annex 2. The marketing rules require steps to prevent lameness, but also a minimum period of force feeding.

development including stimulating shorter food chains and direct farmer marketing, which both offer ways of increasing farmers' share of the final retail price and, importantly, connecting farmers more closely with consumer preferences including those for healthier, more sustainable food.

Public benefits from farms can be difficult to secure without careful targeting of the funding, whether provided through the CAP or nationally. For example, a simple reduction in direct payments, as is often advocated, would have a larger negative impact on the incomes of specialist beef and sheep producers than for the intensive pig and poultry sectors which also could gain a larger share of the market for meat. This remains largely the case even if additional CAP or national resources were to be provided for specialist beef and sheep producers via agri-environment-climate schemes, since in principle that support should only be made available on the neutral "income foregone and additional costs on the farm" basis. Fresh approaches, such as "results based payment schemes" or appropriate compensation for the wider `public goods and services` which farming can provide, for example in terms of flood risk mitigation activities, might address some of these problems, securing greater environmental gains whilst maintaining the viability of grazing livestock farms. This is an important area of work.

However, looking ahead, new challenges arise if a more sustainable diet includes reduced meat and dairy consumption, and if low carbon policies target outdoor ruminants. Leaving aside the obvious impact on producers and consumers, reduced grazing by cattle and sheep would in some areas make it difficult to sustain grassland management on the current scale and contribute to changes in landscape and semi-natural habitats (Stoate et al 2009). However, if ruminant numbers in Europe fall and are not replaced by imports, net greenhouse gas emissions from the European livestock sector would be expected to reduce. This would be the case even in the perhaps unlikely case that there were a balancing increase in the consumption of pig or poultry meat, since ruminants emit more GHGs per kilo of meat produced than pigs or poultry. However, pig and poultry production generally is not associated with environmental public goods delivery and large scale production is potentially a source of significant pollution. This is a complex area and challenging to map the precise implications of changing patterns of consumption since a fall in beef consumption for example could impact different elements in the diverse beef production systems in Europe, which range from the highly intensive to the very extensive. Within this spectrum it is changes to the outdoor grazing systems that would raise issues about how to maintain the management of valued grassland habitats as well as the rural social fabric in some areas (Tälle et al 2016).

More debate about the overall public benefit and cost of different forms of livestock farming (including the role of imports) is needed to clarify longer term social preferences and policy goals in the light of such trade-offs and to create a foundation for more targeted policies. Future policy proposals will be on the table in the UK in the next two years so the urgency is particularly clear.

How payments to farmers within the EU or within the UK might better reward environmental performance cannot be considered in isolation. For example, they will not lead to effective policies if the trade context in which farmers must sell their produce is ignored. This is the subject of the next section.

6 Agricultural trade policy

Table 3 shows the EU's net trading position in livestock and dairy products over the last four years. In very general terms the EU has a continuing trade deficit in sheep meat and, to a lesser degree, beef, but is broadly self-sufficient in many livestock products and a significant net exporter of pork products.

Table 3: EU trade balance in livestock products 2012-2015

	2012	2013	2014	2015
Exports (€millions)				
Beef	625	488	549	618
Pork	3777	3806	3806	3957
Poultry	1584	1599	1562	1596
Sheep/Goat	76	102	102	95
Milk/Whey	3882	4156	4994	4151
Imports (€millions)				
Beef	1440	1498	1625	1806
Pork	53	38	39	35
Poultry	374	311	315	334
Sheep/Goat	1007	923	986	1086
Milk/Whey	44	57	47	42
Net Exports/Imports (€millions)				
Beef	-815	-1010	-1076	-1188
Pork	3724	3768	3767	3922
Poultry	1210	1288	1247	1262
Sheep/Goat	-1134	-821	-884	-991
Milk/Whey	3850	4101	4929	4098

Source: Comext-Eurostat database

World market conditions can be unpredictable and sometimes volatile. This was underlined in 2016 when reduced exports to Russia, China and elsewhere were one cause of a severe dip in dairy prices. Finding new long term export markets is seen by the industry, many governments, and the European Commission as a key strategy for the future in order to ensure that the EU dairy sector can enjoy a recovery in prices without needing to reduce capacity (European Commission, *ibid*). The costs and benefits of export promotion as opposed to allowing demand for European produce to settle at a slightly lower level need to be more precisely identified than they are at present. Increasing exports – or protecting domestic producers from imports - does not constitute a strong rationale for accepting low compliance with environmental and welfare standards or postponing the need to reduce greenhouse gas emissions from the livestock sector. This is as true for the UK, now contemplating new trade and domestic agricultural policies, as it is for the EU.

A recent study (CPRA 2014) for the European Commission suggests that those EU laws which require environmental and welfare standards and which apply directly to livestock production represent only a small of proportion of the cost of EU meat and dairy products. The small

proportion of EU producers' costs represented by needing to meet obligatory environmental and welfare standards is dwarfed by differences in overall production costs in countries such as the US, Brazil and Argentina. These are due to factors such as cheaper land, labour and feed. Agricultural land prices are relatively high in Europe for example and farm sizes are smaller than in most of the other exporting countries. The study estimated the impact of these legal requirements on hypothetical "average farms" in a sample of Member States and third countries. Its findings cannot therefore be extrapolated to the EU as a whole. But the case studies carried out suggested that the direct costs of compliance for EU farmers lay in the following ranges:

- Dairy – 1-1.5% of overall annual production cost (but Netherlands 3% and Poland below 1%)
- Beef – 0.5-3% (UK below 1.2%)
- Sheep – 0.5-3.5% (UK 3.5%)
- Pork – 3-4% in Netherlands and Denmark, but 8% in Germany and 9% in Poland

What this evidence shows is that the high tariffs which apply to some EU livestock products cannot be justified by reference to the cost of environmental or welfare requirements (and other important issues affecting production costs, such as the use of hormones in beef production, are addressed through restrictions on imports rather than through tariffs). Beef imports into Europe, for example, are usually subject to tariffs worth over 50% of the world market price for beef, whereas the study modelled compliance costs of no more than 3%. There are socio-economic reasons for protecting the livestock sector from imports but the environmental ramifications need much further examination. One issue of relevance is the smaller scale of production in Europe compared to the US and Brazil for example and the potential environmental effects of a wave of structural change in the direction of larger farms in Europe (including the UK), if the barriers to imports were to be lowered.

High tariffs might in principle be justifiable as a response to environmental damage associated with production in third countries, even if they are less satisfactory as a mechanism than more direct means to address such damage, such as binding international treaties, which are generally to be preferred. However, the picture is complicated by the heavy dependence of Europe's granivores and more intensive cattle producers on imported protein feed. Table 4 below shows this level of dependence, with Europe producing only 31% of its own protein feed, and only 2% of soya which is generally regarded as an essential component of pig diets.

Table 4: EU production and consumption of livestock protein feed

	EU Production	EU Consumption	Self-Sufficiency
Soya beans/ meal	344	14,280	2%
Rapeseed/ sunflower seeds/meal	5,022	6,795	74%
Pulses	424	450	94%
Dried forage	623	589	106%
Miscellaneous	743	1,336	56%
Sub-total	7,156	23,450	31%
Fish meal	235	350	67%
Total	7,391	23,800	31%

Source: FEAC food and statistical yearbook 2014

The EU and some Member States are trying to reduce this dependency, by strengthening the incentives to farmers to grow legume crops for the domestic feed market. Farmers have been increasing production of feed crops in response but not on a very large scale. Although soya bean production has been growing in Europe by nearly six percent per annum for the last decade, Table 4 shows that import dependence remains high. This is in spite of the recent policy changes (coupled payments, greening) to encourage this and other protein crops. Changes to coupled payments rules, in particular, which mean that they cannot, in principle, drive increases in production mean that it is unlikely that the CAP can drive a step change in Europe's dependency on protein feed imports.

Box 2: Why are coupled payments changing?

The reason for the new restrictions on coupled payments is that the terms of existing (EU) and potential future (UK) trade deals place limits on the extent to which policy can be used to influence farmers to produce particular types of crops and livestock rather than others. The EU is allowed some headroom for so-called "trade-distorting measures" such as coupled headage payments by the 1992 agreement on General Tariffs and Trade, but has chosen to redesign the CAP's coupled payments scheme so that it no longer falls into the category of "trade distorting" or "Amber Box". The modification which achieves this is to restrict the use of coupled payments to the maintenance, rather than the increasing, of production levels. Remodelling the payments in this way has a double benefit. Firstly, it links production more closely to consumer demand. Secondly, it creates room for manoeuvre for the EU in future trade negotiations, since it will no longer have to defend a large allocation of headroom for "Amber Box" trade distorting measures.

The UK will in future make its own trade deals, rather than participating in those negotiated by the EU. As a result, the UK will also need to think about the balance between "Amber box" and non-trade-distorting support it is able to offer. It is unclear how much headroom for Amber Box support the UK would inherit as it splits from the EU or by virtue of its assumed continuing membership of the World Trade Organisation. The UK could use any headroom for "Amber Box" measures to reintroduce coupled payments as a means to increase (rather than just stabilise) certain types of production. It might want to do so, for instance, if it felt that certain types of livestock farming should be directly encouraged because they brought benefits to sustainability. So called "Green Box" payments for agri-environment climate measures target sustainability directly but by definition offer weaker incentives.

Another key policy choice is how far to protect the more economically vulnerable beef and sheep sectors from lower priced imports in the coming years. This arises because of the proposed increases in access to the EU market in beef in particular that could result from a number of EU trade agreements under negotiation, including MERCOSUR and TTIP. Equally it applies to any future bilateral deals the UK may enter into including, potentially, that with the US, which is a lower cost beef producer but employing some practices not permitted in the EU, such as the use of beef hormones. There will need to be a new trade arrangement between the UK and the EU itself where either or both sides may contemplate a high mutual tariff.

The UK has a long tradition of importing livestock products, for example from South America, Australia and New Zealand. In seeking new trade deals with these and other countries after Brexit, greater market access for imported beef and lamb at low tariffs is almost certain to appear on the agenda. With the UK negotiating its own bilateral trade deals, it will have to decide for itself how to reconcile the interests of sectors vulnerable to import penetration (of which beef farming might be one) and those with ambitions to export (not just in farming, but services, manufacturing etc.). The way the UK balances these interests is likely to differ from the way they would have been balanced in deals negotiated at European level to which the UK was party. Whilst the UK economy as a whole depends less on farming than the EU average, there are marked differences between its four constituent countries and the politics of negotiating an agreement covering sectors in which the devolved governments have policy competence will complicate the process of agreeing negotiating objectives.

The prospect of increasing imports of cheaper food from abroad may appear an opportunity not only to reduce consumer prices but also to reduce GHG emissions from the UK or the EU more generally, leaving aside any economic effect in the producing regions. However, a simple reduction in domestic production does not achieve this drop in overall emissions unless the imported meat has a lower net impact on the climate than the UK/EU equivalent, allowing for transport and the whole supply chain. Assuming lower retail prices in the UK then beef consumption could rise and net global emissions could increase.

Trade deals, which can be difficult to amend, need to be critically assessed in the light of a different agenda than even ten years ago. For example, more extensive and more reliable data are required to estimate and consider the requisite environmental and long term dietary impacts and allow counterfactual scenarios to be developed and then used in a better informed policy debate. There will not necessarily be cut and dried answers but stronger foundations are critical in an area where emotions will run high. This applies both in the EU and the UK.

7 Reducing carbon footprints and sustainable diets

More sustainable diets of the kind now being discussed are designed partly to reduce GHG emissions alongside other goals. Some studies suggest that feasible dietary changes in richer parts of the world such as Europe could bring about reductions in per capita emissions of more than 25 % (FCRN 2015). These involve a lower level of meat and dairy consumption than at present.

Whether or not consumers choose or are encouraged to move in this direction, there is the question of how public policy should incentivise a lower carbon pattern of farming and the role of agricultural policy in particular. Agricultural policy can exert considerable influence over the scale and pattern of livestock production as we have outlined. While there are some incentives for farmers to lower their emissions within the CAP there is no long term strategic plan in the EU for reducing specifically agricultural emissions.

Amongst the main EU policy mechanisms to steer emission reductions up to 2030 are the proposed new “Effort Sharing Regulation” and the emerging regime for overseeing “LULUCF” (Land use, Land Use Change and Forestry) in EU countries, including on agricultural land⁸. The Commission is proposing rules that offer Member States considerable flexibility in moving their obligations between different categories and options such that the need to require significant emission reductions in the agricultural sector is greatly diminished (Hart et al, in press). Early analysis (Mathews, 2016b) suggests that the proposals now on the table from the European Commission are not likely to drive down emissions in agriculture in most EU countries to any significant degree in the period to 2030 because they will not put sufficient pressure on Member States to do so. The great majority of EU countries can meet national targets by focusing on other sectors of the economy, such as buildings, and their keenness to do so has discouraged the Commission from a more ambitious approach. Larger livestock producing countries, such as France, the Netherlands and Ireland are expected to find it more attractive to trade emission rights with other countries than to impose further restrictions on their farmers.

This means that adjustments to a lower carbon approach in this part of the food system could well develop more slowly than in other parts of the economy and strategic decisions may be deferred. Even allowing for the relatively high costs of adopting some emission reducing measures in agriculture, and the predominance of small businesses, which increases the challenge, some measures are relatively cheap and a proportion have additional environmental benefits (OECD 2015). Better manure and slurry management is a case in point. Improved livestock health is another win win in the sense that the same amount of meat or milk can be produced by a smaller number of healthy stock thus reducing net emissions per kilo of product.

⁸ Details at https://ec.europa.eu/clima/policies/effort_en

There is thus a strong case for looking again at the Commission's proposals for climate and agriculture and in parallel developing a more strategic approach to achieving a low carbon farming sector, one that includes an appropriate livestock sector, and takes due account of the many other impacts of livestock farming. Building such a strategy would involve mapping a clearer pathway to achieve climate goals in a sustainable manner in the agricultural sector, not only to 2030 but in the longer term, coupled with more detailed elaboration of how this could be achieved. By 2030 the land use sector will need to be making a larger contribution to carbon sequestration as well as to emission reductions, both in the EU and in the UK.

Trade-offs between different options will need to be considered more rigorously as strategies and more immediate policies develop. For example, against the grazing ruminant sector's high carbon intensity per unit of output must be set the role played in managing semi-natural habitats. In some cases there is no clear alternative economic use for grassland, or none which is acceptable in the local environment. If grazing ceases there may be a danger of land use change which would release more GHGs. Another factor to consider is that grazing ruminants are more likely than granivores to utilize feed which could not be consumed by humans, although they often require some concentrates in the diet, even in extensive systems. Against the lower carbon emissions of granivores must be set the problems – such as anti-microbial resistance and welfare concerns – which are posed by the systems in which they are now reared in Europe almost exclusively. These are by no means the only factors to consider.

8 Conclusions

The CAP is a set of policies concerned with agriculture, rural economies and land management rather than a food policy for Europe. Support for livestock production now occurs primarily through direct, and mostly decoupled, payments but there are many other forms of financial assistance as well, including sizeable headage payments and some direct aid for marketing. It is difficult to quantify precisely but is on a significant scale.

The focus on public goods priorities such as the environment and animal welfare within the CAP has grown but is less than could be achieved by a much more targeted policy, especially one that was informed by more strategic planning, for example towards a low carbon farming sector. There are many influences on livestock production in Europe other than the CAP but while the CAP still commands significant resources it could focus these on longer term priorities than those that dominate policy choices today.

Within the UK the expectation is that a new agricultural policy will need to be put in place following departure from the EU, which could occur in 2019. More precisely, it will be a set of policies adopted by the four constituent nations of the UK, which have extensive powers to deploy their own policies in this area, likely to be within a common trade regime the nature of which is far from clear at present. Whatever the merits and faults of the CAP, this provides the opportunity for some fresh thinking about what a forward looking agricultural policy should look like. Clear goals in the direction of sustainable production, environmental priorities and farm animal welfare need to be articulated alongside food supply and economic viability.

Support for livestock farms could be focused more sharply on the public goods that their production can provide, effectively concentrating on grazing cattle and sheep. This would translate into seeking a higher level of environmental standards in new schemes, including organic and more locally-based measures. Such schemes would be designed to offer sufficient incentives to secure the viability of farms delivering the multiple objectives and measurable results that are required. This is unlikely to be achieved by adhering solely to policies that provide compensation for income foregone.

There is also the opportunity to strengthen the linkage between agricultural production and the objective of promoting a healthy diet. The emerging concept of the “sustainable diet” – a diet taking account of a range of health, welfare and environmental factors - could be useful in bringing these two strands of policy closer together. Within this frame, issues concerning livestock production could be approached from a longer term perspective. Publicly-funded support of different kinds for livestock and livestock products could be based on a longer term perspective of what are and are likely to be sustainable markets, for example. There is room for a more careful consideration of how far agricultural policy drives dietary patterns and whether interventions in agricultural production which encourage more sustainable diets are feasible and desirable.

At the same time it must be clearly recognized that the trade regime for agricultural products after Brexit and the level of support made available to farming will have a major influence on

the economic options for farmers and how far higher environmental and welfare standards are achievable. Current standards are not thought to add significantly to the cost of producing in Europe but smaller scale farming does raise costs and the advent of more significant price competition could limit the scope for higher standards.

Taking these considerations into account, a more sustainable set of policies might include:

- Phase out the current system of direct payments altogether, perhaps replacing them with measures which address farm viability directly such as deficit insurance or a risk management fund. This would remove historically higher payments to more intensive livestock farms and enable support to be focused on those where there was a clear purpose for intervention, including many extensive livestock producers;
- Focus spending more on paying farmers to produce public goods and services, developing the approach in Pillar 2 of the CAP;
- Approaching trade negotiations with a strong awareness of their potential impact on agricultural production systems and thereby on diets, and giving priority to arrangements that support rather than undermine the role of sustainable systems that meet the wider social goals that are emerging. The risk of undermining domestic standards by lower cost imports is clearly present.
- Use any promotional budgets that are justified to educate consumers about the benefits of produce which both contribute to a healthy diet and are made to high standards (organic, high welfare, pasture-fed etc), and stop using them in ways which promote extra consumption of domestic production per se.

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10 Annex 1

Farmers can receive support in several ways. Basic direct payments are paid per hectare so vary according to the amount of land in a farmer's claim. Member States can choose to pay a higher rate on the first few hectares in order to channel funding to smaller farms. If they do not do so they must apply a reduction to larger claims ("capping"), and they can also apply capping in addition to a higher rate on the first few hectares. Member States can also offer a Small Farmers' Scheme to those with low value claims, under which the process of applying for a payment and complying with the requirements needed to maintain it is simplified.

There is no requirement for farmers to produce in order to qualify, but they must ensure that their land is capable of being used for production and also meet the requirements of cross compliance. Other than farmers who are paid via a Small Farmers' Scheme and certified organic farmers, farmers claiming basic direct payments must meet the requirements of greening, in return for which they receive a greening payment which is usually worth 30% of the basic direct payment.

Basic direct payments in most EU 15 Member States - and in all parts of the UK except England - still contain a historic element. That is, the value of payments reflects to an extent the value of payments made in the past, rather than simply the amount of land a farmer holds. Historic payments will reduce but not completely disappear by 2020.

How this affects livestock producers

For as long as they exist the broad effect of basing direct payments partly on how intensively land was used in the past is to channel larger payments to those farmers holding land on which more intensive production takes place. This simply reflects the fact that the productivity of land is relatively stable. Reducing production on land which now attracts high per hectare payments would not reduce the payments.

Cross Compliance

Cross compliance is the set of rules with which all farmers (except those claiming via a Small Farmers' Scheme) claiming area-based CAP payments must observe. The broad principle is that part of a farmer's payment will be at risk if he does not meet the rules. Cross compliance is used both to incentivise compliance with certain legal obligations outside the CAP - such as welfare directives - and to require farming to be carried out according to standards of "Good Agricultural and Environmental Condition". These are specified by each Member State using a framework set out in the CAP regulations, and cover matters such as soil protection and the protection of valuable landscape features.

How this affects livestock producers

Farmers who do not comply with the welfare directives may lose a portion of their CAP payment. See Annex two for a fuller discussion of the impact of the CAP on animal welfare.

Pillar 1 greening measures

Farmers claiming basic direct payments must observe on their land whichever of three types of environmental or “greening” practice is relevant to that type of land. There are different requirements for different types of land. Arable farmers must diversify their crops, whilst farmers with “permanent grassland” (broadly, land which has not been part of a crop rotation for five years or more including most pasture) must maintain its status (i.e. not convert to arable) within a 5% tolerance. Member States must specify certain grassland areas as places where ploughing is not permitted (it is permissible in general for permanent grassland provided reseeding with grass takes place). Arable farmers must in addition offer at least 5% of their hectares as “ecological focus area” (EFA). EFAs are intended to encourage biodiversity and the regulations set out a wide range of ways in which this can be done, from which Member States must choose which options to offer to farmers. The most popular option with farmers has proved to be growing legumes, which accounts for 45% of all EFA and has the potential to increase the supply of animal feed.

Member States are able to offer their own variants on any of the three greening requirements, so long as they are accepted by the European Commission as being equivalent to those requirements.

There are exemptions in the greening requirements for organic farming - since it is considered to be “green by definition” and either no or less stringent requirements apply to farmers with only small amounts of arable land, or those covered by a simplified direct payments scheme for small farmers which Member States may choose to introduce

How this affects livestock farmers

Greening is likely to have only a small impact on livestock farmers although mixed farmers might find their ability to grow fodder constrained by the requirement for crop diversification. Conversely greening may provide an incentive to arable farmers to grow more legumes, with a potential impact on feed prices.

Coupled Payments

A coupled payment is one linked to the volume of production e.g. £100 per cow or £200 per tonne of maize. Since 2013 the CAP has allowed Member States to use up to 8% of their budget for direct payments to fund coupled payments, with an additional 2% allowed for protein crops. Member States which used coupled payments more heavily in the run up to the 2013 changes are allowed to use up to 15% of their budget, again with an additional 2% for protein crops.

Coupled payments have in the past caused significant distortions to patterns of production as farmers “farmed the payment” rather than responding directly to the market. In an effort to prevent this, since 2013 coupled payments have only been available to maintain production at historic levels. However, the levels regarded as “historic” leave some leeway for increased production.

How this affects livestock farmers

Coupled payments are a flexible instrument which can be used to encourage particular types of farming in particular locations if desired. The Scottish Government for instance is using them to support suckler beef herds throughout Scotland, and sheep farming in areas of rough grazing. Coupled payments are being used elsewhere in Europe in a less targeted fashion - for example, to support the entire dairy herd in France.

Allowing an additional 2% of budget to be spent on coupled payments for protein crops is intended to help redress the EU's large trade deficit in animal feed, and in particular its dependence on South American soybeans.

Measures within the Rural Development Programme (RDP)

Under the CAP, all Member States are required to draw up a Rural Development Programme applying measures from a menu of nineteen options ranging from support for forestry to aid for cooperation between farmers to tackle environmental or production issues. The majority of funding for RDPs comes from the EU budget – with Member States usually required to contribute part of the cost of each measure, which varies but may be less than 20%. The measures most relevant to livestock farming are:

- Support for organic farming. Member States can make additional per hectare payments (on top of basic direct payments) to farmers who convert to organic and maintain that status. Payments during the conversion period can be higher, to compensate for a period when yields are expected to fall, but produce cannot yet be sold for premium prices;
- Support to farmers in areas with natural constraints (see below)
- Support to farmers who adopt practices beneficial to the environment or climate change i.e. agri-environment schemes, which are widespread in many countries, including the UK
- Support for investment in farm competitiveness and environmental performance; and
- Support for food processing and production

Areas of Natural Constraint (ANC) payments are required to be set at levels judged to compensate for the agricultural handicap concerned, without putting farmers in a better financial position than those outside the ANC. Investment support is via a capital contribution covering a portion of the costs and can increase the efficiency and competitiveness of farms, including livestock producers, many of whom have very low incomes. Aid can also increase the environmental performance of farms, for example by improving manure and slurry storage and management, which can be a key means of reducing GHG emissions from livestock farms.

How this affects livestock farmers

Support for agri-environment schemes is on the basis of “excess cost or income foregone”. In other words, they compensate farmers for the extra cost of doing something, or any loss in income which results. Payments are structured in this way in order to qualify as “non trade-distorting” under the rules of the World Trade Organisation, which regulates the way its

members make payments with the aim of preventing distortions to trade. Organic farming payments operate in a similar manner.

Because payments operate on this basis, the extent to which they can influence patterns of production is limited (which is the intention). However, they can and do have an impact at the margin on the economic viability of certain types of environmentally beneficial, extensive livestock farming.

Market Price Support

The CAP underpins market prices for many agricultural commodities, including beef, milk and milk products but not pork or poultry. It does so by setting a minimum price at which the Commission will intervene by buying in produce from the market. Prior to the CAP reforms of 1992 the intervention price was set so high that it often became the market price. Intervention prices have reduced very substantially in recent decades. For instance, the intervention price for beef following the 2013 reforms stands at €1890/tonne – roughly half the current European market price of €3680/tonne. The intervention price thus operates as a safety net, providing reassurance to farmers that prices will not fall below a certain level, whilst not (in current circumstances, at least) acting as a price signal.

Crisis funds

The second way in which the CAP now provides assistance to the market is through a crisis fund. This is worth €400m, financed by Member States via reductions to their allocation of direct payments, and is for use in exceptional market circumstances such as disruption to trade (it was used to support the dairy industry when Russia banned EU imports) or a collapse in consumer confidence

How this affects livestock farmers

Because it is available to beef, dairy and sheep meat producers but not pork or poultry, market price support is in principle acting as a bias towards higher production of the former and lower production of pork and poultry. However, with intervention prices set well below those in the market, this effect is very small (the support simply protects against the risk of severe market downturn, rather than helping to set the price). In addition, the number of producers (e.g. in the uplands) who could realistically switch from beef or sheep to pork or poultry is limited, given the very different nature of the farming systems usually employed.

Promotional Support

The CAP's quality policy enables Member States to register the names of specialised products such as Gorgonzola cheese, Cornish sardines or Welsh lamb, along with a set of rules specifying where and how they must be produced in order to be marketed under the name which has been registered. Although its primary purpose is to enable the producers of particular products in specific locations to earn a price premium, the scheme can achieve

other objectives depending on how it specifies the products which may be marketed under the name which is protected. For instance, the designation for Welsh lamb requires grass feeding, rather than concentrate, and includes a table showing the relative fatty and omega acid contents of grass- and concentrate fed lamb (but without specifying that lamb marketed as “Welsh” must contain such concentrations). Our examination of a sample of other protected products did not find any other reference to nutrition, however. The connection between the CAP’s quality policy and animal welfare is discussed below.

The CAP also pays for the promotion of farmed produce, with the Commission approving EU contributions to schemes put forward by, and partly financed by, Member States. For instance, the Commission in 2014 put €2.4m towards the cost of a €7.4m campaign using sports personalities to promote milk consumption in Denmark, Ireland, France and the UK. Whilst such assistance is sometimes used to promote healthier alternatives such as fruit, vegetables and organic meat, its intervention logic is to grow the market for what European farmers produce.

The EU’s School Milk Scheme is not, strictly speaking, a part of the CAP since it has its own separate budget. From 2017, it will merge with the School Fruit Scheme. Both schemes are optional for Member States, which may apply for a share of a budget of €100m (in the case of the milk scheme) or €150m (in the case of fruit). Member States participating in the milk scheme - who include the UK - must draw up a strategy describing the objectives in pursuit of which they will offer free or subsidized drinking milk (and, if wanted, other milk products such as cheese) to nursery children and schoolchildren. The strategy may include measures to promote a healthy diet, but may also have a strong emphasis on promoting the consumption of milk. Overall, the School Milk Scheme is a strange hybrid between a health promotion tool and marketing assistance for the dairy industry.

How this affects livestock farmers

The quality policy, which protects “brands” such as Cornish pasties, Melton Mowbray pies and Spanish Cabrales cheese protects many products made from traditional ingredients and in traditional ways from competition from imitations. Where such products involve meat or dairy produce, there is scope for farmers to benefit from the higher prices which may be chargeable as a result of the protected “brand”.

Livestock farmers clearly benefit directly from promotional campaigns which market their products.

11 Annex 2

The CAP's only requirement on animal welfare⁹ is set out in cross-compliance, in the form of a Statutory Management Requirement (SMR) that farmers comply with the requirements of existing Directives relating to the protection of calves, pigs and farm animals in general¹⁰. In the case of calves, these requirements are:

- A ban on keeping calves in individual pens after they are eight weeks old, unless for veterinary purposes, and a requirement that each calf kept in a group pen should have at least 1.5 – 1.8 m² of space, depending on its weight.

In the case of pigs, the requirement is for:

- Space standards ranging from 0.15 m² for a small piglet to 2.25 m² for a sow; requirements as to the minimum width of slats and maximum width of openings in the floor of pig houses, and the minimum size of pens in which pigs are held; a ban on tethering sows and gilts and requirements for the enrichment of pens with toys to encourage natural behaviour, for feeding systems which ensure that each pig can eat, and for certain types of pig to be kept in groups at certain times.

In the case of farm animals as a whole:

- A series of mostly very general requirements (e.g. adequate food, care from a veterinarian when necessary) and requirements relating to light, temperature and other conditions when animals are kept in buildings. The standards required for minimum spacing and other factors are not intended in any way to preclude intensive farming.

These requirements exist independently from the CAP, since the Directives which stipulate them have legal effect in their own right as do other legal requirements on animal welfare. The effect of linking them to the CAP via cross-compliance is not to add requirements to what is already the law, but to put farmers at risk of losing part of their CAP payment(s) if they are found to be contravening them. The intention is to incentivise greater compliance. However it does not automatically follow that benefits to animal welfare will result. For example, if criminal prosecution for offences under the domestic legislation which implements the three welfare directives were to become less likely as prosecuting authorities reduced their efforts

⁹ The interaction between quality labelling under schemes such as Protected Denomination of Origin (PDO) within the Single Common Market Organisation (Single CMO) is discussed below. There are not, however, any welfare requirements since farmers are not required to use such schemes. And many schemes are welfare-neutral or – as in the case of foie gras – arguably inimical to welfare.

¹⁰ Council Directive 98/58/EC on the protection of animals kept for farming purposes; Council Directives 2001/88/EC and 2001/93/EC amending Directive 91/360/EEC laying down minimum standards for the protection of pigs; Council Directive 97/2/EC amending Directive 91/629/EEC laying down minimum standards for the protection of calves. There is also legislation protecting poultry, but this is not referenced as a statutory management requirement by cross-compliance.

at enforcement and relied instead on cross-compliance inspections to pick up problems, farmers might consider this a lesser deterrent. This is especially so since breaches of cross-compliance which are considered negligent rather than deliberate are treated in a light-touch way, whereas negligence is unlikely to succeed as a defence against a prosecution brought under animal welfare law.

The welfare standards themselves are basic. They do not, for example, prevent farmers from receiving subsidy whilst keeping calves, pigs or other animals entirely indoors, in close proximity to one another, with artificial rather than natural lighting and without any opportunity to forage for food or to graze.

The SMRs relating to animal welfare are the only animal welfare requirements in the CAP. It is however also possible for Member States to use CAP funding to improve animal welfare either by funding the growth and/or maintenance of organic livestock farming (for which higher standards of animal welfare are required), or by funding welfare improvements directly through a measure in the Rural Development Programme in which payments to the farmer are based on an assessment of the additional cost (or reduced income) resulting from the change. However, both supporting organic farming and funding for animal welfare improvements are optional for Member States. Organic farming is supported by 27 out of the 28, but in the case of animal welfare, just 30 out of 118 current Rural Development Programmes¹¹ include the measure, and just 1.4% of RDP funding has been programmed for it.

Beyond the farm level itself, there is an EU regulation on the protection of animals during transport (Regulation 1/2005). These have been criticised as being too weak by several governments and MEPs as well as welfare NGOs. A joint German, Danish and Dutch proposal in 2014 suggested a tightening of the rules (for example towards an eight hour maximum journey time). However, the European Commission recently has made it clear that it does not favour more EU legislation in this area and is not minded to propose it.

There is another CAP measure which has a complicated relation to animal welfare, without itself amounting to a requirement. That is the Quality Policy within the Single Common Market Organisation – a group of policies for regulating the types of agricultural product which may be placed on the market and, in some cases, managing their price through intervention. The Quality Policy includes a regulation which protects the specific titles or descriptions under which certain agricultural products may be sold. Conditions relating to animal welfare can be included in the legal specification which products must meet if they are to be marketed under a certain label. However, it is clear from the example that welfare considerations are not always paramount!

Foie Gras from South West France

Under the EU's agricultural quality policy – part of the Single CMO – France has registered a quality standard for “Canard a la Foie Gras du Sud-Ouest” (duck with fat liver from the South West). The standard describes the methods of production which must be followed, as well

¹¹ There are more RDPs than Member States because France, Germany, Italy, Spain, Finland and the UK produce regional RDPs

as the locations in which production must take place, if poultry products are to be sold under this designation.

The standard includes numerous requirements – the types of duck which can be used, how they are to be slaughtered and butchered, and how the duck or portions thereof may be presented to customers. From the point of view of animal welfare, however, the most interesting aspects are that:

- There are requirements designed to reduce the risk that ducks will lame themselves on muddy runs; and
- There is a requirement that ducks must be force fed a diet high in cereal for at least ten days.

This standard illustrates some of the interactions between welfare concerns and notions of “quality” within the single CMO.

Institute for European Environmental Policy (IEEP)

www.ieep.eu

+44 (0) 20 7799 2244 (London)

+32 (0) 2738 7482 (Bruxelles)

Twitter: @IEEP_eu



Institute ^{for}
European
Environmental
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