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FERTILE GROUND

Opportunities and challenges for UK agriculture

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About the author

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Summary

This paper examines the current state of UK agriculture and makes recommendations as to what the long term goals of a UK agricultural policy should be, after the UK leaves the EU, in a way that maximises the potential benefits of a genuinely independent agricultural policy, while minimising the disruptions caused by leaving the EU.

We argue that the goals of an Independent UK Agricultural Policy should be as follows:

- To provide good quality, affordable food for consumers.
- To support British farmers such that they can be competitive in domestic and global markets.
- To protect our environment and preserve the UK's agricultural traditions.

In order to achieve these goals while leaving the EU, the paper recommends:

- Making the most of leaving the EU's Common Agricultural Policy (CAP), by moving away from the Common External Tariff (CET), and amber box production subsidies (recognising that the UK's amber box subsidies are already low).
- A more positive approach to new technologies, allowing farmers to innovate and move away from environmentally degrading old technologies.
- Pursuit of agricultural liberalisation as part of an independent trade and regulatory policy, while maintaining defensive measures where appropriate to protect producers from distortions.

The paper further discusses ways in which transition to a new UK agricultural policy can be made in a manner that is least disruptive for existing producers, including through the use of transitional grants and a gradual phasing out of certain subsidies.

The paper recommends that the UK exit with a deal that includes a transition/implementation period so as to allow continued support while new policies are put in place. However, in the event of a 'no deal' exit, certain necessary steps that the UK should take to protect consumers are discussed. These include the removal of all tariff and quota restrictions on a number of foodstuffs which the UK does not produce, as well as opening tariff rate quotas up *erga omnes* to allow competition from efficient global producers, especially for the beef and dairy sectors.

Part 1: Context for a UK Agricultural Policy

1. Opportunity to develop a UK Agriculture Policy

Summary:

Productivity in the UK agricultural industry has stagnated.

The Common Agricultural Policy does not incentivise efficiency in production, and the high tariff and non-tariff barriers under the EU's Common External Tariff further limit competition from imports.

Withdrawing from the EU and the Common Agricultural Policy provides an opportunity to develop a UK agricultural policy focused on innovation and competition, and an independent trade policy.

The agricultural industry generated £10.3bn of gross value added in 2017.[1] Domestic agricultural production provides around 50% of the food consumed in the UK,[2] covers 72% of land, and employs 1.48% of the labour force.[3] The UK's food production to supply ratio, which is a measure of self-sufficiency and provides a broad indicator of the ability of UK agriculture to meet consumer demand, was 60% for all food in 2017. The EU's Common Agricultural Policy (CAP) determines member states' policies at

1 Department for Environment and Rural Affairs (2017), 'Agriculture in the United Kingdom (2017)'. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/741062/AUK-2017-18sep18.pdf

2 Department for Environment and Rural Affairs (2017), 'Food Statistics in your pocket 2017 - Global and UK supply'. Available at: https://www.gov.uk/government/publications/food-statistics-pocketbook-2017/food-statistics-in-your-pocket-2017-global-and-uk-supply

3 See reference 1.

most stages of agricultural production, domestic consumption and trade (with the Common External Tariff).

Productivity of UK farms is lower than its international competitors.[4] Total factor productivity, which measures how well inputs are converted into outputs, fell by 2.3% between 2015 and 2016,[5] before rising 2.9% between 2016 and 2017.[6] The largest increases in productivity were prior to the early 1980s; since then productivity has broadly stagnated.

The high levels of subsidisation and the way support is structured under the CAP do not incentivise efficiency in production for farmers. For example, farmers are paid just on the basis of hectares of land, but there are no specific CAP incentives targeted towards research and development, or training.

The relatively high tariff and non-tariff barriers imposed under the EU CET limit competition from imports, further reducing incentives to improve productivity.

Following the 23 June 2016 vote to leave the EU, the Government has announced[7] that it will introduce an Agriculture Bill that will include "measures to ensure that after we leave the EU, and therefore the Common Agricultural Policy, we have an effective system in place to support UK farmers and protect our natural environment". The purpose of the Bill is to "provide stability to farmers as we leave the EU" and "support our farmers to compete domestically and on the global market, allowing us to grow more, sell more and export more great British food".

4 The Economist (2017), 'Dig for victory!' Available at: https://www.economist.com/news/britain/21642157-why-british-farmers-are-less-productive-their-international-competitors-dig-victory

5 Department for Environment and Rural Affairs (2016), 'Agriculture in the United Kingdom (2016)'. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/672119/AUK-2016-08jan18.pdf

6 Department for Environment and Rural Affairs (2017), 'Agriculture in the United Kingdom (2017)'. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/741062/AUK-2017-18sep18.pdf

7 'The Queen's Speech and Associated Background Briefing, on the Occasion of the Opening of Parliament on Wednesday 21 June 2017.' Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/620838/Queens_speech_2017_background_notes.pdf 7

This could be achieved through developing a UK Agricultural Policy that is built on competition and innovation, with an independent trade policy. If achieved, this can help to lift people from poverty to prosperity, as UK consumers have access to cheap, quality food and UK producers benefit from a productive, profitable industry.

This paper sets out proposals with respect to three keys areas that are critical:

- Tariffs and quotas;
- Subsidies and government support; and
- Regulatory measures.

Part 1 provides the background to these issues while Part 2 provides policy recommendations.

2. Tariffs and quotas

Summary:

The Common External Tariff imposes a range of tariffs and quota restrictions on imports from outside the EU.

This includes high tariffs on products that the UK imports, such as fresh fruit and vegetables, and meat.

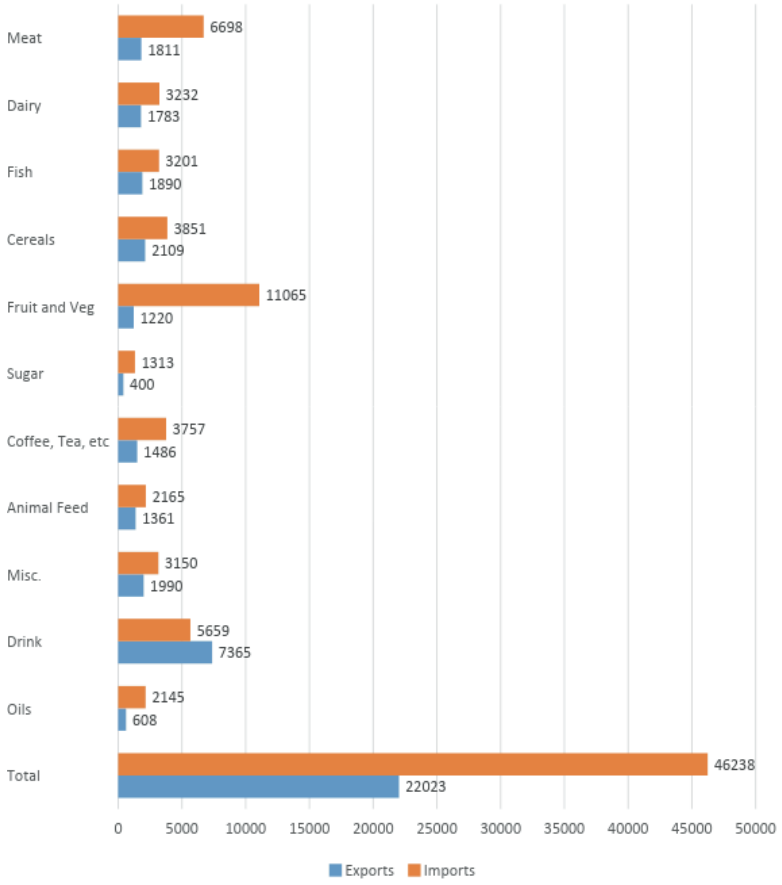
Under the Common External Tariff (CET), the EU imposes a range of tariffs and tariff-rate quotas (TRQs) on agricultural products. These are set out in the EU's WTO schedules for goods. The latest EU WTO schedule on concessions for goods was certified in December 2016 and sets out the bound rates for MFN tariffs and TRQs.[8] In practice, the applied TRQs are specified in EU regulations, and include further preferential tariffs and TRQs applied by the EU for various partner countries.

2.1 Trading patterns

The UK is a net exporter of products such as beverages and a net importer of products such as fruit, vegetables, meat, coffee, and tea.

8 WTO (2016), 'Certification of Modifications and Rectifications to Schedule CLXXIII – European Union', 1 December 2016. The schedule only reflects the expansion of the EU to the 25 countries, and does not reflect the accession of Romania, Bulgaria and more recently, Croatia.

Figure 1: UK trade in food, drink and animal feed, 2017 (£ million)[9]



Exports to the EU comprised around 60% of all food, feed and drink exports in 2016.[10] The largest export partner for the UK is Ireland, followed by the US and France. Around 70% of imports in 2016 were from the EU, with the largest share coming from the Netherlands,[11] followed by Ireland, France, and Germany.

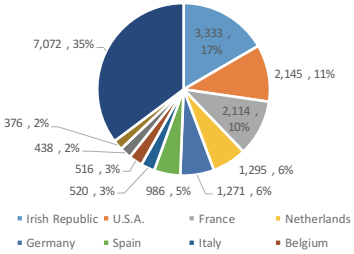
9 Department for Environment and Rural Affairs (2017), 'Agriculture in the United Kingdom (2017)'. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/741062/AUK-2017-18sep18.pdf

10 Department for Environment and Rural Affairs (2016), 'Agriculture in the United Kingdom (2016)'. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/672119/AUK-2016-08jan18.pdf

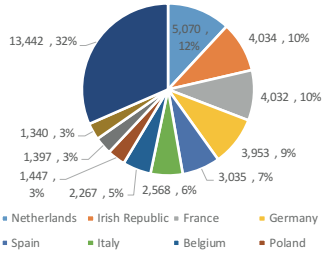
11 Note that this may reflect the "Rotterdam effect".

Figure 2: UK trade partners in food, drink and animal feed, 2016 (£ million)[12]

Exports



Imports



2.2 Tariffs

The tariffs vary significantly across different products. The CET imposes a most-favoured nation tariff rate of around 10% on fruits and vegetables,[13] the UK's largest import. Tariffs on the UK's other significant imports are around 63% on beef, 48% on lamb, 21% on poultry, and 52% on dairy products.[14] The Appendix presents a detailed discussion of trade, tariffs, and tariff-rate quotas on different products.

2.3 Tariff rate quotas

The TRQs specify lower or zero tariffs for goods imported within the specified quota compared to goods imported outside of the quota. These TRQs are specified at detailed tariff line levels for different goods and relevant EU provisions detail the product specifications and any qualifications. In most cases, TRQs are available to all countries on an "*erga omnes*" basis, that is, "first come, first served"; however, some TRQs are specifically allowed to certain supplying countries. For example, New Zealand has a specific TRQ for lamb exports to the EU.

12 See reference 11.
13 European Union committee (2017), 'Brexit: Trade in goods,' House of Lords, 2017. Available at: https://publications.parliament.uk/pa/ld201617/ldselect/ldeucom/129/12902.htm
14 Common External Tariff weighted average tariff ad valorem equivalent, which combines ad valorem tariffs and fixed levies.

Currently, most TRQs are managed by the European Commission's Directorate-General responsible for Taxation and Customs Union, but some are also managed by the European Commission's Directorate-General responsible for Agriculture and Development through a system of import licences. Details on applicable TRQs, as specified under WTO schedules and under relevant EU regulations are set out in the Appendix.

TRQs will be a key element of negotiation as the UK rectifies its WTO schedules as countries seek to retain access to the UK market.

2.4 Preferences for developing countries

The EU maintains a series of MFN exemption programmes that grant preferences to developing countries to promote trade. These programmes include:

- Generalised System of Preferences (GSP). This programme allows qualifying countries to export products into the EU at a preferential tariff rate across two-thirds of tariff lines. Qualifying countries include those countries that have not been classified as upper-middle or high income for the previous three years, and that do not benefit from other preferential trading arrangements with the EU. There are currently 13 notified GSP schemes: EU, Australia, Belarus, Canada, Japan, New Zealand, Norway, Russian Federation, Switzerland, Turkey, Iceland, Kazakhstan and US.
- Generalised System of Preferences + (GSP+). GSP+ provides greater market access with full removal of tariffs on the same tariff lines offered under GSP in exchange for ratification of 27 international treaties relating to human rights, labour rights, and the environment. Countries qualify if they are considered 'vulnerable' due to either low levels of economic diversification or low levels of international economic integration.
- Everything but Arms (EBA). This programme provides zero tariffs and quota-free access to the EU for all products (other than arms and ammunition) for least-developed countries recognised by the United Nations. Once a country is no longer considered least-developed, they have a three-year transitional period before their EBA preferences expire. Currently, there are 49 least-developed countries that benefit from this programme.

The UK will have to determine the tariffs and TRQs to specify in its own WTO schedules.

3. Subsidies and supports

Summary:

The CAP comprises a significant proportion of the EU budget.

Reforms of the CAP have meant that it has evolved towards mostly decoupled support, with a focus on rural development, moving away from market support and export subsidies.

The UK primarily uses decoupled direct payments, although Scotland still provides some coupled support for beef and sheep farmers.

Reforms to the CAP have meant that support is now mostly in the allowable category (Green Box) in the WTO.

Despite reforms, inefficiencies remain; the structure of support does not incentivise innovation and improvements in productivity.

3.1 Introduction to the Common Agricultural Policy

The CAP provides annual funding to EU agriculture of around EUR 59bn for:[15]

- Income support to farmers, based on production meeting consumer demands, and linked with environmental sustainability, animal health and welfare, and food safety;

15 European Commission (2017), 'CAP at a Glance'. Available at: https://ec.europa.eu/agriculture/cap-overview_en

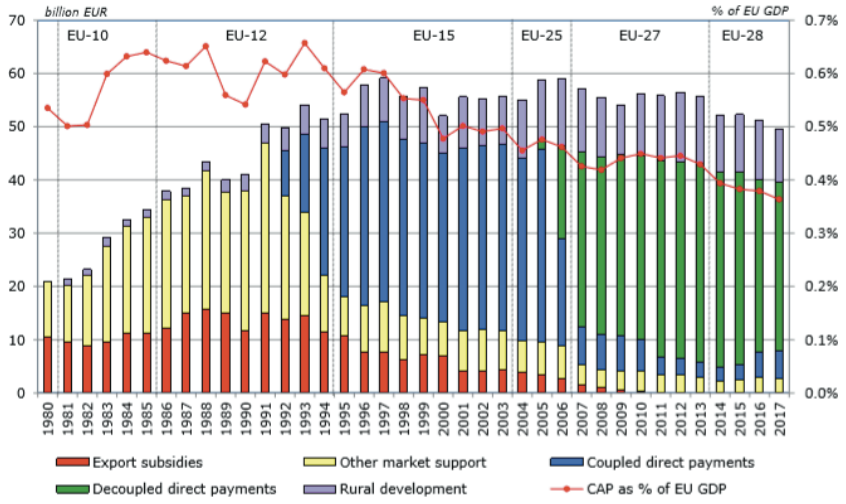
- Market measures, to balance impacts on vulnerable common agricultural markets due to external factors such as weather or high price volatility; and
- Rural development programmes, responding to the specific needs of member states.

These measures are financed through:

- The European Agricultural Guarantee Fund (EAGF); and
- The European Agricultural Fund for Rural Development (EAFRD).

CAP expenditure comprises just under 40% of EU expenditure, declining from above 60% in the 1980s. The form of support under the CAP has also evolved towards mostly decoupled payments, and payments for rural development, with limited support for coupled payments and other market support. This is a marked change from mostly market support and export subsidies in the 1980s, illustrated below.

Figure 3: CAP expenditure and CAP reform path (2011 prices)[16]



There are three forms of support:

- **Direct payments to farmers (Pillar 1).** These payments are granted directly to farmers to provide them with a safety net, with supplementary payments to farmers for complying with sustainable agricultural practices and other support schemes. The payments are subject to rules around active farmers, eligible hectares, cross compliance,[17] and the budgetary and financial discipline mechanism. The key elements of direct payments include:

    1. The Basic Payment Scheme (BPS) which provides a basic income support to farmers that is decoupled from production to stabilise income;
    2. Greening, which provides additional payments to farmers for using climate- and environmentally-friendly farming practices of crop diversification, maintaining existing permanent grassland and maintaining an ecological focus area;

16 European Commission (2018), 'CAP post 2013'. Available at: https://ec.europa.eu/agriculture/sites/agriculture/files/cap-post-2013/graphs/graph2_en.pdf

17 Cross compliance is a system whereby farmers who do not comply with certain requirements in the areas of public, animal and plant health, environment and animal welfare are subject to reductions of or exclusion from direct support.

3. Voluntary schemes for the redistribution of basic payments;
4. Young farmer's scheme to encourage generational renewal;
5. Voluntary Coupled Payments (VCS scheme) linked to specific production to remedy the potentially adverse effects of internal convergence for particularly sensitive sectors;
6. Voluntary payments for areas with natural constraints / less favoured areas; and
7. Voluntary small farmer's scheme.

- **Market support measures (Pillar 1).** There are three main aspects:
  1. Internal measures, which cover market intervention[18] (including public intervention and private storage aid systems[19]), and rules on marketing and producer organisations;
  2. External measures, which relate to trade with third countries, and covers import and export certificates, import duties, administration of TRQs and export refunds; and
  3. Exceptional measures, such as measures to guard against market disruptions caused by price fluctuations or other events, market support measures to cope with animal disease outbreaks or a loss of consumer confidence owing to public, animal or plant health risks, measures relating to concerted practices adopted when there are serious imbalances in the market, and a new reserve fund for crises in the agricultural sector.

- **Rural development measures (Pillar 2).** These are funded by the EAFRD and aim to promote sustainable rural development. The payments are co-financed by the member states. The priorities are to:
  1. Promote knowledge transfer and innovation in agriculture and forestry;
  2. Increase the viability and competitiveness of all types of agriculture, promote innovative agricultural technologies and support sustainable forest management;
  3. Promote the organisation of the food production chain, animal welfare and risk management in farming;

18 Under public interventions, member states take ownership of the product; this form of support may be used for common wheat, durum wheat, barley, maize, paddy rice, fresh or chilled beef and veal, butter and skimmed milk powder.

19 Private storage aids involve a private company taking ownership and maintaining a storage contract with the member state authorities. This may occur for white sugar, olive oil, flax fibre, fresh or chilled beef, butter, cheese, skimmed milk powder, pigmeat, sheepmeat and goatmeat.

4. Restore, preserve and enhance agricultural and forest ecosystems;
5. Promote the efficient use of resources (water and energy) and support the transition to a low carbon economy; and
6. Promote social inclusion, poverty reduction and economic development.

3.2 CAP in the UK

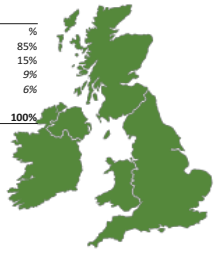
The following figure illustrates the distribution of CAP payments across the UK. Most support is provided through direct payments. Scotland and Northern Ireland have relatively higher reliance on direct payments, while England and Wales have relatively higher use of rural development payments.

Figure 4: CAP payments in the UK [20]

Scotland CAP payments		EUR m	%
Pillar 1	Direct Aids	522	89%
Pillar 2		62	11%
of which:	EAFRD	*26*	*4%*
	Co-financing	*36*	*6%*
Total Scotland CAP payments		**584**	**100%**

UK CAP payments		EUR m	%
Pillar 1		3,121	79%
of which:	*Direct Aids*	*3,035*	*77%*
	Market price support	*86*	*2%*
Pillar 2		806	21%
of which:	*EAFRD*	*641*	*16%*
	Co-financing	*165*	*4%*
Total UK CAP payments		**3,927**	**100%**

Northern Ireland CAP payments		EUR m	%
Pillar 1	Direct Aids	321	85%
Pillar 2		58	15%
of which:	*EAFRD*	*34*	*9%*
	Co-financing	*24*	*6%*
Total Northern Ireland CAP payments		**379**	**100%**



England CAP payments		EUR m	%
Pillar 1		2,018	77%
of which:	*Direct Aids*	*1,932*	*74%*
	Market price support	*86*	*3%*
Pillar 2		608	23%
of which:	*EAFRD*	*529*	*20%*
	Co-financing	*79*	*3%*
Total England CAP payments		**2,626**	**100%**

Wales CAP payments		EUR m	%
Pillar 1	Direct Aids	260	77%
Pillar 2		78	23%
of which:	*EAFRD*	*52*	*15%*
	Co-financing	*26*	*8%*
Total Wales CAP payments		**338**	**100%**

The BPS is tied primarily to hectares of eligible land. On average, direct payments (BPS plus supplementary income) amount to EUR 267 per eligible hectare.

The EU sets the rules governing direct payments with implementation by the member states. For example, England applies the basic payment at a flat rate according to different types of land (non-severely disadvantaged

20 Department for Environment and Rural Affairs (2017), 'Agriculture in the United Kingdom (2017)'. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/741062/AUK-2017-18sep18.pdf

areas, lowlands and severely disadvantaged), Scotland applies a basic payment system based on different definitions (arable, temporary or permanent grass, rough grazing), and Wales and Northern Ireland are to introduce a flat rate by 2019.[21]

The table below illustrates the breakdown of direct payments under the various payment schemes. The largest component by far is under the BPS. Around 15% of support in England and Wales are towards agri-environment schemes while Scotland and Northern Ireland provide support under less-favoured area support schemes.

Table 1: Direct payments to farmers[22]

£ million

	England	Wales	Scotland	Northern Ireland	United Kingdom
Livestock subsidies					
Scottish Upland Sheep support scheme	..	..	7	..	7
Scottish Suckler Beef support scheme	..	..	40	..	40
Total coupled payments	..	..	47	..	47
Decoupled payments (not linked to production)					
Basic Payment Scheme	1 768	235	425	292	2 719
Less Favoured Areas support schemes (a)	..	..	66	19	85
Agri-environment schemes					
Environmetnal Stewardship Scheme/ new Country Stewardship Scheme (b)	348	..	..	..	348
Rural Priorities / Land Manager Options	..	..	15	..	15
Glastir	..	56	..	..	56
Countryside Management Scheme	..	..	..	3	3
Organic Farming Scheme	..	..	..	-	-
Environmentally Sensitive Areas Schemes	..	..	..	-	-
Sites and Areas of Special Scientific Interest	..	1	-	-	1
Other (c)	-	-	-	-	-
Animal disease compensation (income)	13	4	-	6	24
Total decoupled payments	2 129	296	505	320	3 250
Total direct payments	2 129	296	552	320	3 297

21 European Commission (2017), 'CAP in your country: United Kingdom'. Available at: https://ec.europa.eu/agriculture/sites/agriculture/files/cap-in-your-country/pdf/uk_en.pdf

22 Department for Environment and Rural Affairs (2017), 'Agriculture in the United Kingdom (2017)'. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/741062/AUK-2017-18sep18.pdf

Scotland is the only country in the UK that provides coupled support. This is the only production-linked subsidy in the UK and one of the few remaining in the WTO as a whole. Scotland relies on these schemes to support beef and sheep/goat farming:

- The Scottish Suckler Beef Support Scheme pays farmers per calf. Farmers can claim for calves that (i) are owned or leased by that farmer, (ii) are at least 75% beef-bred, (iii) were born on Scottish land, (iv) have a valid cattle passport, and (v) did not attract payments under the preceding Scottish Beef Scheme. Farmers can make claims on an unlimited number of calves. The payment in 2015/16 was around EUR 100 per head for animals born on mainland Scotland and around EUR 160 per head for animals born on the Scottish Islands.[23]
- The Scottish Upland Sheep Support Scheme provides payments for sheep farmers who maintain flocks on poor-quality, rough grazing land.

23 Scottish Government (2018), 'Scottish Suckler Beef Support Scheme (Mainland and Islands) full guidance'. Available at: https://www.ruralpayments.org/publicsite/futures/topics/all-schemes/scottish-suckler-beef-support-scheme/scottish-suckler-beef-support-scheme-full-guidance/#43025

3.3 CAP and the WTO

Subsidies and support provided are subject to the WTO's Agreement on Agriculture. This agreement categorises aid into different boxes depending on the extent to which it distorts agricultural markets. These are:[24]

- **Amber box.** All domestic support measures that can be considered to distort production and trade fall within the amber box with some exceptions. These exceptions include measures to support prices and subsidies directly linked to production quantities. There are 'de minimis' minimal supports allowed (for developed countries, this is 5% of agricultural production). Countries are committed to reducing subsidies, with the reduction commitments expressed as the aggregate measure of support (AMS), which expresses all support as a single figure. Currently, for the UK, this is defined within the EU's AMS. The VCS is an example of amber box subsidies.
- **Blue box.** This measure is equivalent to the amber box, but with conditions designed to reduce distortions. Support that would normally be considered to be in the amber box would be placed within the blue box if the support also requires farmers to limit production. There are no limits on spend within the blue box.
- **Green box.** Green box subsidies are those that do not, or only minimally, distort trade. These measures have to be government-funded and cannot involve price support. These measures include programmes that are not targeted at specific products and include direct income support for farmers that are decoupled from production or prices as well as environmental protection and regional development programmes.

With the CAP reform and subsequent decoupling of direct payments, the majority (84.2%) of EU domestic agricultural support notified to the WTO falls in the green box with only limited support falling in the blue box (6.0%) and amber box (9.8%).[25]

24 WTO (2019), 'Domestic support in agriculture: The boxes'.

25 Fact Sheets of the European Union (2018), 'WTO Agreement on Agriculture', European Parliament, 2018. Available at: http://www.europarl.europa.eu/factsheets/en/sheet/111/wto-agreement-on-agriculture

3.4 Challenges with CAP

The CAP has undergone several reforms since its inception. However, there remain a number of challenges associated with its design.

For example, the linking of the direct payments to hectares of land results in the perverse outcome of subsidising certain large landholdings that are already wealthy. Whilst the support may be used to provide some public benefit, it goes beyond the objective of stabilising the basic income for farmers.[26] The UK has larger holdings than the EU average with around 22% of holdings having more than 100 hectares compared to 3.1% across the EU.[27]

Historically, the market support mechanisms have led to “wine lakes” and “butter mountains” as the authorities purchase products to support their prices. Even now, the EU is intervening in the dairy market and failing to achieve the intended objective of propping up prices.[28] This intervention is inefficient and distorts the market. More details on the dairy interventions are in the Appendix.

The provision of direct support just on basis of land also reduces incentives for farmers to innovate and improve productivity. Linking support to land also has the effect of raising land prices, thereby creating barriers to entry for new farmers,[29] or for alternate, more productive uses of land.

26 Unearthed (2016), ‘Common Agricultural Policy: Rich List receive millions in EU subsidies’. Available at: https://unearthed.greenpeace.org/2016/09/29/common-agricultural-policy-millions-eu-subsidies-go-richest-landowners/

27 European Commission (2017), ‘CAP in your country: United Kingdom’. Available at: https://ec.europa.eu/agriculture/sites/agriculture/files/cap-in-your-country/pdf/uk_en.pdf

28 Politico (2018), ‘Europe’s hidden milk lake threatens fragile market’. Available at: https://www.politico.eu/article/europes-hidden-milk-price-lake-threatens-fragile-market-eu-commission/

29 Helm, D. (2017), ‘Britain’s farmers get £3bn a year from the inefficient CAP. That has to change’, LSE Blogs, 2017. Available at: http://blogs.lse.ac.uk/brexit/2017/05/26/britains-farmers-get-3bn-a-year-from-the-inefficient-cap-that-has-to-change/

4. Regulatory measures

Summary:

The WTO SPS Agreement and TBT Agreement stipulate that SPS / TBT measures cannot be used to erect unnecessary barriers to international trade, and have to be applied only to the extent necessary to achieve the regulatory goal.

Many EU regulatory measures with respect to agricultural products are considered to be overly protectionist by its trading partners; and the EU has lost disputes on the WTO with respect to the regulatory measures applied.

The EU applies a precautionary principle for risk management where the science is not fully formed, but the application can lead to excessive protectionism.

The CAP sets a number of regulatory measures on agricultural products that impact on trade. Within the WTO framework, these can described as:

- Sanitary and phytosanitary (SPS) measures; and
- Technical Barriers to Trade (TBT).

4.1 Sanitary and phytosanitary measures

SPS measures are measures to protect humans, animals, and plants from diseases, pests, or contaminants. SPS measures are governed by the WTO Agreement on the Application of SPS Measures (SPS Agreement). Article 2 of the SPS Agreement provides that:

a) Members have the right to take SPS measures necessary for the protection of human, animal or plant life or health, provided that such measures are not inconsistent with the provisions of this Agreement.
b) Members shall ensure that any SPS measure is applied only to the extent necessary to protect human, animal or plant life or health, is based on scientific principles and is not maintained without sufficient scientific evidence except as provided for in paragraph 7 of Article 5 (which provides that in cases where relevant scientific evidence is insufficient, members may provisionally adopt sanitary or phytosanitary measures on the basis of 'available pertinent information').
c) Members shall ensure that their SPS measures do not arbitrarily or unjustifiably discriminate between Members where identical or similar conditions prevail, including between their own territory and that of other Members. SPS measures shall not be applied in a manner which would constitute a disguised restriction on international trade.
d) Sanitary or phytosanitary measures which conform to the relevant provisions of this Agreement shall be presumed to be in accordance with the obligations of the Members under the provisions of GATT 1994 which relate to the use of SPS measures, in particular the provisions of Article XX(b).

Principles for application of science in risk assessment and analysis have been adopted by the Codex Alimentarius, and in treaties such as the Convention on Biological Diversity and the Cartagena Protocol on Genetic Modification.

4.2 Technical Barriers to Trade

TBT issues are governed by the WTO's Agreement on Technical Barriers to Trade (TBT Agreement). Article 2 of the TBT Agreement provides that:

With respect to their central government bodies:

a) Members shall ensure that in respect of technical regulations, products imported from the territory of any Member shall be accorded treatment no less favourable than that accorded to like products of national origin and to like products originating in any other country.

b) Members shall ensure that technical regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade. For this purpose, technical regulations shall not be more trade-restrictive than necessary to fulfil a legitimate objective, taking account of the risks non-fulfilment would create. Such legitimate objectives are, inter alia: national security requirements; the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment. In assessing such risks, relevant elements of consideration are, inter alia: available scientific and technical information, related processing technology or intended end-uses of products.
c) Technical regulations shall not be maintained if the circumstances or objectives giving rise to their adoption no longer exist or if the changed circumstances or objectives can be addressed in a less trade-restrictive manner.
d) Where technical regulations are required and relevant international standards exist or their completion is imminent, Members shall use them, or the relevant parts of them, as a basis for their technical regulations except when such international standards or relevant parts would be an ineffective or inappropriate means for the fulfilment of the legitimate objectives pursued. For instance, fundamental climatic or geographical factors or fundamental technological problems.

Both the SPS Agreement and TBT Agreement stipulate that SPS/TBT measures cannot be used to erect unnecessary barriers to international trade and have to be applied only to the extent necessary to achieve the regulatory goal.

4.3 The EU approach

Despite this goal, many EU regulatory measures with respect to agricultural products are considered to be overly protectionist by its trading partners. Many WTO members have asserted that the EU imposes SPS requirements that are either not based on sound science, or not applied only to the extent necessary to protect human, animal or plant health. For example, the US National Trade Estimate states that, “the United States is concerned that these measures unnecessarily restrict trade without furthering their safety objectives because they are not based on scientific principles, or maintained with sufficient scientific evidence, or applied to the extent necessary.”[30]

30 United States Trade Representative (2016), ‘The 2016 National Trade Estimate Report’, p. 147. Available at: https://ustr.gov/sites/default/files/2016-NTE-Report-FINAL.pdf

The EU has repeatedly lost SPS cases in the WTO, notably on beef hormone issues and genetically-modified organisms (GMOs). In the 1996 beef hormone case which was brought against the European Communities by the US, the WTO Appellate Body found that the European Commission had violated its commitments under Articles 3.1, 5.1 and 5.5 of the SPS Agreement.[31] Subsequent appeals have led to the EU continuing its effective ban on beef products treated with hormones, and the US maintaining trade sanctions against the EU for a value equal to the loss incurred by its producers for the ongoing WTO violation.[32]

The European Commission maintains a strict positive list for all substances (other than water) permitted for decontamination of animal products. Several EU agencies have affirmed that chlorine dioxide, acidified sodium chlorate, trisodium phosphate and peroxyacids do not pose a threat to human health when found in trace amounts on meat products, but they do not feature on the list. This list also creates difficulties for producers in third countries who have to satisfy different product regulations for the same carcass (e.g. Canada beef where parts of the same carcass may be sent to the EU and US, but product regulations over microbial washes are inconsistent). Despite this, these common pathogen reduction treatments are banned and any meat produced using them is not fit for import into the EU. This primarily affects poultry products, but also pork and beef.[33] It is also worth pointing out that the US hardly uses chlorinated washes for disinfectant purposes on poultry. It uses peracetic acid which the EFSA approved five years ago.[34]

The European Commission applies the precautionary principle, for any matter which may negatively impact human, animal or plant life, in an extremely robust manner. The precautionary principle is a risk-management tool intended for situations where scientific consensus is not yet fully formed. It “may be invoked when a phenomenon, product or process may have a dangerous effect, identified by a scientific and objective evaluation, if this evaluation does not allow the risk to be determined with sufficient

31 WTO (2016), ‘European Communities — Measures Concerning Meat and Meat Products (Hormones)’. Available at: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds26_e.htm

32 Congressional Research Service (2015), ‘The U.S.-EU Beef Hormone Dispute’ Available at: https://fas.org/sgp/crs/row/R40449.pdf

33 See reference 31, p. 150.

34 European Commission (2000), ‘The Precautionary Principle’. Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=URISERV%3Al32042 [acc. 28/02/2019]

certainty."[35] The precautionary principle is more widely applied in the EU, and, it has been claimed, has often moved beyond sound science and stifled innovation.[36] Without it, measures such as the beef hormone ban, pathogen reduction treatments restriction, and the opt-out for genetically modified crops cultivation, may have either not come into force, or may have been enforced in a less restrictive fashion.

Article 191 of the Treaty on the Functioning of the EU sets out the concept of the precautionary principle. This article applies only to measures in respect of the environment, but practice and case law have extended its application to other fields as set out in the Communication from the Commission on the precautionary principle of 2 February 2000.[37] In most cases, European consumers and the associations which represent them have the burden of proof to demonstrate the danger associated with a procedure or a product placed on the market except for medicines, pesticides, and food additives. However, in the case of an action being taken under the precautionary principle, the producer, manufacturer, or importer may be required to prove the absence of danger. This possibility shall be examined on a case-by-case basis. It cannot be extended generally to all products and procedures placed on the market.[38]

The European Commission guidance on the lawful application of the precautionary principle in the Communication stated that its aim was to outline the Commission's envisaged application of the precautionary principle when faced with taking decisions relating to the containment of risk. The Communication specified that the precautionary principle would be applied in relation to a potential risk even if such risk cannot be fully demonstrated or quantified, or its effects determined because of the insufficiency or inconclusive nature of the scientific data. Although the Communication advocates a scientific evaluation of any potentially adverse

35 European Commission (2000), 'The Precautionary Principle'. Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=URISERV%3Al32042 [acc. 28/02/2019]

36 See for example: 'The Innovation Principle – Letter to the Presidents of the European Commission, The Europe Council, and The European Parliament', October 2013. Available at: https://corporateeurope.org/sites/default/files/corporation_letter_on_innovation_principle.pdf; and The Heritage Foundation (2004), 'The Perils of the Precautionary Principle: Lessons from the American and European Experience'. Available at: http://www.heritage.org/government-regulation/report/the-perils-the-precautionary-principle-lessons-the-american-and

37 European Commission (2000), 'Communication from the Commission on the Precautionary Principle'. Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52000DC0001 [acc. 28/02/2019]

38 Ibid.

effects, it states that an assessment of risk should be considered "where feasible" and, in deciding whether the principle should be invoked, recognises that, "it is not possible in all cases to complete a comprehensive assessment of risk, but all effort should be made to evaluate the available scientific information."[39]

In terms of TBT measures, examples include the general regulation on food law (Regulation (EC) N 178/2002), which provides that any food imported into the EU for placing on the market must comply with EU food law and/or any specific agreement between the EU and the exporting country. In light of this provision, all importers into the EU must comply with the remaining restrictions under the Regulation. Article 14 states that food shall not be placed on the market if it is unsafe. Food is deemed to be unsafe if it is considered to be:

- injurious to health; or
- unfit for human consumption.

Factors to be taken into account by food producers are outlined in Article 14 and include having regard for the normal conditions of use of the food by the consumer and at each stage of production, processing and distribution and to information provided to the consumer on the food labelling. In addition, the Article promotes consideration not only to the probable immediate and/or short-term and/or long-term effects of that food on the health of a person consuming it, but also on subsequent generations (amongst other factors).[40]

It is not at all clear that the EU approach makes food any safer. In fact, there is evidence it makes food less safe for human consumption. According to the OECD, US per capita poultry consumption is roughly double that of the EU.[41] However, rates of Salmonella and Campylobacter appear to be higher in the EU. The US sees 13.45 cases of Campylobacter and 15.45 cases of Salmonella per 100,000 population per year.[42] For the EU, the notification rates are 66.3 and 20.4 per 100,000, respectively.[43] While

39 Ibid.
40 European Parliament (2002), 'Regulation (EC) No 178/2002'. Available at: http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32002R0178 [acc.28/02/2019]
41 OECD (2018), 'Meat Consumption'. Available at: https://data.oecd.org/agroutput/meat-consumption.htm
42 S. M. Crim et al. (2015), 'Morbidity and Mortality Weekly Report 64', 495 (2015).
43 The European Union summary report on trends and sources of zoonoses, zoonotic agents and food-borne outbreaks in 2016

differences in reporting methodology mean that caution should be exercised in comparing these figures directly, it would be fair to say that the data supports the contention that US poultry is of a much higher safety standard with regards to food borne diseases.

The EU approach to new technology also means that outlawed pesticides (such as carbamates) are being reintroduced which have serious human health consequences. This situation is so because only 1 GM crop has so far been approved for cultivation in the EU (a second, not for human consumption, was briefly approved but this decision was annulled by the EU court[44]). This is despite GMO's and Genome Edited crops reducing pesticide use in non-EU countries by 36.9% over the last 25 years while increasing yields by 21.6%.[45] Instead, as the rest of the world has increasingly transitioned to higher yield crops that are less dependent on pesticides (in 2017, GM crops were cultivated covering an area 30 times the arable land of the United Kingdom[46]), the European Union has continued with high pesticide use. According to the United Nations Food and Agricultural Organisation,[47] the Netherlands uses 9.86 Kg/ha of pesticides, with Italy and Belgium also using over 6 Kg/ha. These numbers are higher than the UK at 3.2 and much higher than other producers including the US and Australia at 2.6 and 1.1, respectively. Some of these pesticides (notably carbamates and organophosphates) can cause risk to human health, particularly to those who work with them regularly.

European food stocks are also subject to frequent health scares including outbreaks of listeria in French soft cheeses. Only last year, cheeses sold to Australia had to be recalled for this reason.[48] According to the European Centre for Disease Prevention and Control, there were more than 2,000 cases of listeria confirmed in EU/EEA countries in 2014 giving a rate of

44 Reuters (2013), 'EU court annuls approval of BASF's Amflora GMO potato', 13 December 2013. Available at: https://www.reuters.com/article/eu-gmo-potato/eu-court-annuls-approval-of-basfs-amflora-gmo-potato-idUSL6N0JS1TH20131213

45 Klümper, W. and Qaim, M. (2018), 'A Meta-Analysis of the Impacts of Genetically Modified Crops', University of Göttingen, 2018.

46 ISAAA (International Service for the Acquisition of Agri-Biotech Applications) (2017), 'Global Status of Commercialized Biotech/GM Crops in 2017: Biotech Crop Adoption Surges as Economic Benefits Accumulate in 22 Years', Brief 53, Ithaca, NY: ISAAA, 2017.

47 Food and Agriculture Organisation of the United Nations (2019). Available at: http://www.fao.org/faostat/en/?#data/

48 Food Poison Journal (2018), 'French Cheese Recalled in Australia due to Listeria'. Available at: https://www.foodpoisonjournal.com/food-recall/french-cheese-recalled-in-australia-due-to-listeria/

roughly 0.6 per 100,000 population.[49] The most recent data for the US, recorded in 2016, gives under 800 cases, translating to a rate of per 100,000 less than half that of the EU.[50]

Another area where the EU approach allows practices damaging to human health is in antimicrobial resistance (AMR). This area is predicted to be a significant problem as common antibiotics become less effective over time. The UN General Assembly in 2016 recognised the use of antibiotics in the livestock sector as a primary cause of AMR.[51] Per Population Corrected Unit (PCU) of meat production, however, EU countries are the highest users of antibiotics in the world with Spain and Cyprus using more than 400mg per PCU of meat production and Italy using over 300mg. Estimates for the United States and Australia, respectively, are only around 80 and 40 mg/PCU.[52] EU countries have also been criticised for overusing the most medically important antibiotics even when overall use levels have been falling.[53] This depletion of 'medically important' antibiotics poses a particular risk to humans over the long term.

The UK will have to ensure that its regulatory measures do not unnecessarily restrict trade and competition in the market and can build from existing WTO disciplines. The UK should focus its regulatory measures on protecting health outcomes where the data shows that the EU's regime does not guarantee safe food.

49 European Centre for Disease Prevention and Control (2017), 'Annual Epidemiological Report'. Available at: https://ecdc.europa.eu/sites/portal/files/documents/Listeriosis%20-%20Annual%20epidemiological%20report_0.pdf

50 Centers for Disease Control and Prevention (2016), 'National Notifiable Infectious Diseases and Conditions: United States'. Available at: https://wonder.cdc.gov/nndss/static/2016/annual/2016-table2i.html

51 UN General Assembly (2016), 'Political Declaration of the high-level meeting of the General Assembly on antimicrobial resistance'. Available at: https://digitallibrary.un.org/record/842813/files/A_71_L-2-EN.pdf

52 Global-level estimates by country for the year 2010 were published by: Van Boeckel, T. P., Brower, C., Gilbert, M., Grenfell, B. T., Levin, S. A., Robinson, T. P., ... & Laxminarayan, R. (2015)m, 'Global trends in antimicrobial use in food animals', Proceedings of the National Academy of Sciences, 112(18), 5649-5654. Available at: http://www.pnas.org/content/112/18/5649.full.pdf

53 The Guardian (2016), 'Use of strongest antibiotics rises to record levels on European farms', 17/10/2016. Available at:https://www.theguardian.com/environment/2016/oct/17/use-of-strongest-antibiotics-rises-to-record-levels-on-european-farms

Part 2: Recommendations for a UK Agricultural Policy

5. Developing a UK Agriculture Policy

Summary:

The UK's independent agricultural and trade policies should promote competition and innovation. These policies should be based on the following principles:

Minimising measures that distort competition and trade; and Developing regulatory measures that are based on sound science.

The UK agricultural industry has been impacted by inefficient policy for decades which has limited productivity growth. The UK's independent agricultural and trade policies should promote competition and innovation. These policies should be based on the following principles:

- Minimising measures that distort competition and trade; and
- Developing regulatory measures that are based on sound science.

The more that trade and competition is open and unrestricted, the more wealth can be created in the economy and **the more people will be lifted out of poverty and into prosperity.**

Competition improves economic and consumer welfare by providing greater choice, lower prices, and higher quality. Competition promotes innovation and increased efficiency by producers, leading to higher economic growth. Conversely, distortions to this process can hinder welfare. Such distortions can include policies that limit the number of participants, such as by

increasing barriers to entry; those that limit the ability or incentives for participants to compete, such as by artificially reducing the costs for specific participants; and, those that limit the choices available to consumers, including through reduced information.[54]

The trajectory of WTO obligations is to ensure the least trade-restrictive measures consistent with regulatory goals (e.g. Article 2.2 of TBT Agreement), and in the case of SPS measures, that these are based on sound science (Article 2.2 of SPS Agreement). The OECD's Competition Assessment Toolkit[55] also promotes development of policies that are least restrictive while still achieving government objectives and removing unnecessary restraints on competition in the market.

This means reforming agricultural subsidies and government support so that they are not supporting unproductive, unprofitable farms remaining in business, whilst encouraging the development of innovative practices. This also means setting regulatory measures on health and technical barriers that are consistent with international standards and are not unduly restrictive and effectively protectionist.

54 OECD (2017), 'Competition Assessment Toolkit: Volume 1. Principles'. Available at: http://www.oecd.org/daf/competition/46193173.pdf

55 OECD (2017), 'Competition Assessment Toolkit'. Available at: http://www.oecd.org/competition/assessment-toolkit.htm

6. Tariffs and quotas

Summary:

The UK should lower tariffs on products that it does not have direct competition in and does not produce. This reduction in tariffs will boost consumer welfare for all, but will particularly help lower income families.

The UK should use a mechanism to address distortions in other countries' markets.

The UK needs to negotiate zero for zero tariffs in the implementation period with the EU, prior to a comprehensive FTA, with mutual recognition agreements.

6.1 Tariffs

The UK is not self-sufficient in many of the products that have some of the highest tariff rates under the Common External Tariff. For example, the UK is only 16% self-sufficient with respect to fresh fruits,[56] relying on imports of which around 60% comes from outside the EU. Retail prices for fruit have also risen by around 44% between 2007 and 2017.[57]

56 Department for Environment and Rural Affairs (2017), 'Agriculture in the United Kingdom (2017)'. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/741062/AUK-2017-18sep18.pdf

57 Department for Environment and Rural Affairs (2017), 'Food Statistics in your pocket 2017 - Global and UK supply'. Available at: https://www.gov.uk/government/publications/food-statistics-pocketbook-2017/food-statistics-in-your-pocket-2017-global-and-uk-supply

This increase in retail prices raises the costs of living for UK consumers. Liberalising tariffs on such products that the UK does not produce is likely to increase consumer welfare. Food costs form a higher proportion of the budget for lower income households accounting for 14% of all household spending compared to an average of 10.5% across all households.[58] Such a move will most positively impact lower income families and benefit all households and ease the pressure from rising food costs. Food and non-alcoholic beverage prices have risen by around 4% since before the recession started in 2007 and prompted a rise in food prices following a period of stable prices.[59]

The Government should prioritise liberalisation for products that the UK does not produce and that do not have direct substitutes such as certain fresh fruit and vegetables, olive oil, etc.

6.2 Tariff-rate quotas

As part of the process for negotiating its own TRQs, the UK will have to consider:

- The starting TRQs to be applied, that is, the certified WTO schedule, or the wider range of TRQs specified in EU regulations;
- The TRQs for imports into the UK alone from non-EU countries (erga omnes and country-specific); and
- Any TRQs on imports from EU countries.

We recommend that the **starting point** for setting the TRQs are those that are actually currently applied under EU regulations as the certified WTO schedules are not current. The UK should seek to set its own schedules to reflect current obligations.

Determining the **level of TRQs** for imports to the UK alone from non-EU countries will be a challenging exercise. The current quotas are applicable for imports into all EU countries, including the UK. Third countries can choose which country to export their products to and benefit from the lower

58 Department for Environment and Rural Affairs (2017), 'Food Statistics in your pocket 2017 – Prices and Expenditure'. Available at: https://www.gov.uk/government/publications/food-statistics-pocketbook-2017/food-statistics-in-your-pocket-2017-prices-and-expenditure#household-income-after-housing-costs-and-food-prices-in-real-terms-uk-2016-17

59 ibid.

tariffs for trade within the quotas. For example, if there is a TRQ of 1 million units for a particular product with a 10% tariff within quota and a 100% tariff out of quota, third countries could choose to export 1 million units to the UK or 500,000 units to the UK and 500,000 units to another EU country and then benefit from 10% tariffs in either case. If the UK and EU seek to divide the TRQ, TRQ partners will likely object.

The UK will have to determine the applicable TRQs for imports specifically into the UK. These TRQs can be based on:

- **A proportion of the current EU TRQ.** Under this option, the UK could retain *erga omnes* and country-specific TRQs across different products, but the volume of the TRQ would only be a proportion of the current EU quota. This proportion could be based on the three-year average of the current share of imports to the UK relative to the EU-27. This option would be closest to retaining the current trade flows with third countries, but TRQ partners would stand on their legal rights and object, holding out for full replication.
- **Replication of the full TRQ.** Under this option, the UK would grant access to the full volume of TRQs that is currently available regardless of the volume of exports to the UK relative to the EU-27 under the TRQs. This option could have potentially significant consequences for UK producers, and where it applies to country-specific TRQs, there would be impacts for other countries that also export to the UK.
- **Negotiate a new set of quotas.** This option could be in the context of proposed future free trade agreements with third countries.

We recommend that the UK initially set its TRQs as a proportion of the current overall EU TRQs based on UK's historic share of imports under the relevant TRQs. This approach is expected to have the least impact on either current trading patterns or on domestic agricultural production. Over time, however, the UK should seek to engage in bilateral FTA negotiations that could include further country-specific TRQs.

Some countries, such as New Zealand, have expressed that they would want the UK to replicate the current EU quotas with no change to the quota for remaining EU-27 countries and have threatened WTO action in the event that this is not offered. That is, using the above example, they would want the UK to have a TRQ for 1 million units and the EU-27 to retain a TRQ of 1 million units. This argument is on the basis that third countries

now have a right to export 1 million units to either the UK or EU-27 countries and any splitting of TRQs would diminish their existing rights.

This approach has potentially significant consequences for both UK and EU-27 agricultural sectors. The extent of the impact depends to what extent the third countries actually change their trading patterns and export more to the UK and the EU-27. The following figure illustrates how different sectors may potentially be impacted if the UK were to replicate the quotas based on:

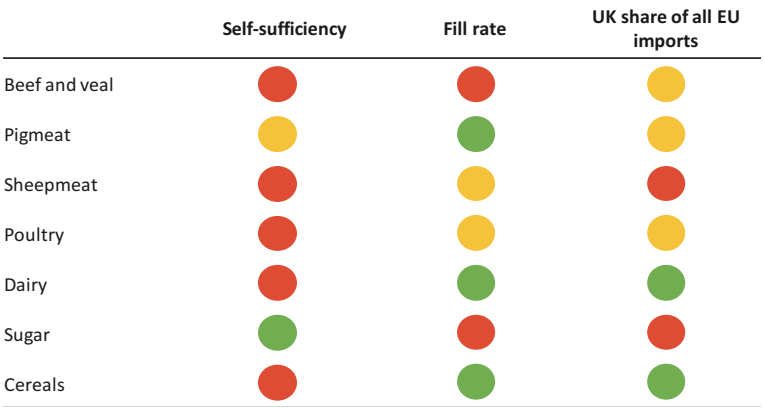
- **UK self-sufficiency.** Where UK self-sufficiency is high (red), it indicates that UK production relative to total supply is high and so opening up the market could have a greater impact on domestic producers.[60]
- **Fill rate.** The fill rate indicates the share of the TRQ that is actually filled by imports. A higher fill rate (red) indicates that third countries are utilising the TRQs heavily and so if quota values are increased, they are more likely to export greater volumes.[61]
- **UK share of all EU imports.** Trade patterns illustrate that UK shares of imports relative to the rest of the EU varies by product as well as exporting country. Where the UK's share is relatively high (red), the UK industry is likely to be more impacted as third countries may choose to increase their exports to the UK rather than to the EU27.[62]

60 Data from 'Agriculture in the United Kingdom (2017)', Department for Environment and Rural Affairs, 2017. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/741062/AUK-2017-18sep18.pdf

61 Data based on fill rates against TRQs specified within EU regulations

62 Data based on overall UK shares of EU imports, rather than shares specifically for imports under TRQs, which is not publicly available

Figure 5: Potential impacts of replication of TRQs



This is an initial analysis only and the final impact will also depend on capacity to increase production by third countries, UK/EU27/world prices, and the interaction between the above.

It is anticipated that the UK will negotiate at least a basic FTA in goods and agrifood with no quantitative restrictions with the EU-27 and so it will not be necessary to determine any TRQs for **imports from the EU-27.**

However, if the UK leaves without a deal, it will fall back on the CET as between it and the EU. This falling back on the CET would lead to food price inflation which could only be managed by either:

(1) Applying a zero tariff on a unilateral basis to all countries including the EU (in order for such action to be WTO compliant); or

(2) Seeking to open up the agricultural TRQs to all comers (*erga omnes*) on a global rather than a country specific basis.

In either case, EU farmers would face competition from very large, industrial scale producers from all over the world (Argentinian and Brazilian beef for example). As shown in the table below, this will have very specific impacts on a handful of very politically sensitive areas such as dairy in both Bavaria and Northern Italy and beverages across France.

Figure 6: Estimated impacts of applying the Common External Tariff on selected industries[63]

Country	Sector	Change in annual exports to UK in 2019 (Euro m)	Change in annual exports to UK in 2019 (%)	Net annual impact on overall sector exports (%)	Net impact on annual producer revenues (Euro m)	Estimated impact on jobs	Regions potentially impacted
EU27	Automobiles	(4,180) – (14,675)	(10%) – (36%)	(1%) – (5%)	(4,013) – (12,820)	(15,552) - (49,688)	-
EU27	Dairy	(1,584) – (2,812)	(56%) – (100%)	(4%) – (8%)	(1,171) – (1,726)	(6,875) - (10,136)	-
Germany	Automobiles	(2,245) – (7,880)	(10%) – (36%)	(2%) – (6%)	(2,218) – (7,586)	(8,597) – (29,403)	Baden-Württemberg, Bavaria, North Rhine-Westphalia
Germany	Dairy	(247) – (378)	(66%) – (100%)	(3%) – (5%)	(214) – (299)	(1,259) – (1,756)	Bavaria, Lower Saxony, North Rhine-Westphalia
France	Dairy	(335) – (591)	(57%) – (100%)	(6%) – (10%)	(294) – (466)	(1,147) – (1,814)	Bretagne, Pays de la Loire, Basse-Normandie
France	Beverages	(144) – (413)	(8%) – (24%)	(1%) – (3%)	(138) – (402)	(537) – (1,566)	Île de France, Champagne-Ardenne, Rhône-Alpes, Provence-Alpes-Côte d'Azur
Ireland	Beef	(656) – (971)	(68%) – (100%)	(34%) – (50%)	(579) – (802)	(3,397) – (4,711)	West (Mayo, Roscommon, Galway and Galway City) and Border (Cavan, Donegal, Leitrim, Louth, Monaghan, Sligo) regions
Ireland	Dairy	(409) – (732)	(56%) – (100%)	(23%) – (42%)	(209) – (255)	(1,224) – (1,495)	West (Mayo, Roscommon, Galway and Galway City) and Border (Cavan, Donegal, Leitrim, Louth, Monaghan, Sligo) regions
Italy	Clothing	(145) – (529)	(12%) – (43%)	(1%) – (3%)	(136) – (371)	(1,222) – (3,336)	Lombardia, Veneto, Toscana
Italy	Dairy	(106) – (204)	(52%) – (100%)	(4%) – (8%)	(93) – (176)	(545) – (1,034)	Lombardia, Emilia Romagna, Veneto, Piemonte. Campagnia
Spain	Automobiles	(390) – (1,371)	(10%) – (36%)	(1%) – (5%)	(368) – (1,053)	(1,426) – (4,080)	Cataluña, Castilla y León, Comunidad Valenciana
Spain	Clothing	(68) – (251)	(12%) – (43%)	(1%) – (2%)	(63) – (170)	(565) – (1,531)	Cataluña, Galicia

In particular, the Republic of Ireland has a 67% share of UK beef imports. This share would collapse overnight leading to devastating losses for the Irish beef industry as acknowledged by former Irish PM, Bertie Ahern.[64] Given the importance of farming to Ireland's rural identity, this would have an impact well beyond the economic. For these reasons, as the prospect of the UK leaving without a deal increases, the greater the pressure

63 Source: Special Trade Commission, Legatum Institute

64 Former Taoiseach Bertie Ahern giving evidence to then Exiting the European Union Select Committee, 13/02/2019. Remarks at around 10:10:30. Available at: https://www.parliamentlive.tv/Event/Index/f5379ddb-3230-43a2-b9cd-4765cc012168

European farmers will apply on member states and the Commission to accept any revised UK proposals.

6.3 Managing preference erosion and addressing distortions

General trade liberalisation will lead to preference erosion for developing countries that benefit from the preference programmes of GSP, GSP+, or EBA, as all exporting countries can take advantage of the lower tariffs. However, the preference itself has a number of limitations:

- It does not incentivise countries to move up the value chain of production as tariffs typically still remain on more value added products; and
- It creates challenges for countries as they graduate from least-developed country status and need to mitigate against disruptions to trade.

General trade liberalisation may be more beneficial in such circumstances. However, the UK should support developing countries in managing the preference erosion such as through providing for a transition phase and potentially through DfID funding to help with transition costs to encourage innovation and upgrading.

Alongside trade liberalisation, it is critical that there is a mechanism to address any anti-competitive practices by other countries exporting to the UK. For example, if a third country provides a government advantage and their producers export to the UK, those countries will have an unfair competitive advantage over both UK domestic producers as well as other countries that export to the UK.

This situation could involve the imposition of a graduated tariff on imports from the country benefiting from distortions to counterbalance the impact of the distortion on the price of the good on the UK market.

The price gap approach[65] can be used as a mechanism to discipline imports of products where costs are reduced by distortions in the exporting country's market. In this case, the relevant prices to consider would be the import price and world prices to understand the extent to which import prices are lower than world prices through distortionary policies. The distortionary policies can be analysed to review the price impact at each

65 See, for example, Michael Ferrantino, 'Quantifying the Trade and Economic Effects of Non-Tariff Measures', OECD Trade Policy Papers No. 28, 2006; and WTO, 'A Practical Guide to Trade Policy Analysis', 2012.

stage of the production, distribution, and shipping to comparable prices, taking into account margins, taxes, etc. This distortion can then be addressed in the UK market through the imposition of a tariff equivalent to the price gap. The ACMD mechanisms would be available for UK farmers to obtain relief against distortionary policies adopted by other countries and thereby ensure a 'level playing field' without the UK Government having to adopt similar distortionary policies.

6.4 Negotiations with the EU

Around 50% of the food consumed in the UK is supplied domestically with another 30% coming from the EU. As such, it is important to ensure that there is an agreement with the EU.

If the UK leaves the EU without an agreement in place, then the CET will (save to the extent that the UK elects to unilaterally reduce and eliminate tariffs on an MFN basis) apply to imports of products from the EU and the UK, respectively, including TRQs. A zero tariff, zero quantitative restrictions, basic FTA would be WTO-compliant and preserve EU access into the UK. The parties could agree to this after the UK leaves and it would clearly be preferred to the CET. We will evaluate the cost to both UK and EU farmers of the CET option in a separate paper.

Assuming an FTA with the EU (and/or a transitional zero for zero deal), the UK's relationship with the EU once Article 50 negotiations have been concluded is likely to be characterised by high levels of trade, slightly muted by the application of countervailing duties and the distortions mechanism that we have recommended. At present, the majority of imports and exports for the majority of agricultural goods in the UK come from/go to the EU. These figures are likely to decrease for most products once the artificial incentive structures which currently exist for European products in the UK are ended. Nevertheless, it will likely remain cost-effective to import much of what UK consumers eat and drink from the EU and to export UK agricultural products to the EU, especially for high-value, non-substitutable goods. European agricultural production is among the most distorted in the world. UK farmers, after our departure from the EU, will need some protections from the effects of those distortions. Further details on how the ACMD mechanism would function can be found in "An Introduction to Anti-Competitive Market Distortions and the Distortions Index" (Shanker A. Singham and A. Molly Kiniry), Legatum Institute, September 2016.

The UK will also need to agree mutual recognition agreements for agricultural products and, if required, apply Article 4 of the SPS Agreement which states that member countries shall accept the SPS measures of other member countries as equivalent, even if they differ, as long as the measures objectively achieve the same regulatory goals.

6.5 FTA negotiations

As agriculture represents a threshold issue in negotiations with most countries, it is important that these domestic reforms are addressed early on in the process of negotiations. The UK has relatively few defensive interests in agriculture which will make potential trade partners more likely to agree to liberalisation in difficult areas that are more important to the UK economy such as services.

It is the EU's refusal to negotiate on agriculture that has made negotiation with third countries on services, investment, and behind the border barriers, such as anti-competitive market distortions, so difficult.

US – UK FTA

Many have assumed that a UK-US FTA necessarily means the admittance of US agricultural produce that is somehow dangerous to human health, or that the conditions in which US agriculture operates are dangerous to animal health. We take this opportunity to explain some realities and bust some commonly held misconceptions.

First, UK consumers will not be forced to eat any products which they do not want to. Consumers can continue to eat organic, or British grown, produce that is appropriately labelled. While under current European law, a PRT wash (see below) need not be declared on a label,[66] there would be no impediment to the UK introducing such a requirement once the legislative powers had been returned to Parliament.

Second, a number of myths have arisen with respect to US production. We tackle these head on.

The US does not produce unsafe poultry products. The US uses a number of chemicals (including chlorine dioxide, acidified sodium chlorite, trisodium

66 European Parliament (2011), 'Regulation (EU) No 1169/2011'. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011R1169&from=EN

phosphate and peroxyacids) in Pathogen Reduction Treatments (PRTs). These treatments are important for protecting human health, with Codex Alimentarius guidelines concluding that systems of sprays and washes have been "shown to reduce" prevalence of both Salmonella and Campylobacter in chicken meat.[67] This is borne out by the data on health outcomes in the US and EU.

According to OECD data, US citizens eat more than twice as much poultry meat (48.8kg/capita) as EU citizens (24.2kg/capita).[68] However, instances of Salmonella and Campylobacter per 100,000 population are 20.4 and 66.3 in the EU[69] and only 15.45 and 13.45 in the US,[70] respectively. Taken at face value, this would suggest that Campylobacter is around 5 times more prevalent in the EU and Salmonella 1.3 times more prevalent. Rates also vary dramatically between member states within the EU. In fact, comparing the US rates to the UK rates, the difference is even more marked, with the UK experiencing over 90 cases of Campylobacter per 100,000 population in each of the last four years. For Salmonella, rates in the UK are similar to the US at 15.1 confirmed cases per 100,000 population, however, rates in the UK have been rising for the last three years.

These PRTs have also been judged to pose no risk to humans by both the USDA[71] and the EFSA. The EFSA gave the opinion in 2005 that "On the basis of available data and taking into account that processing of poultry carcasses (washing, cooking) would take place before consumption, the Panel considers that treatment with trisodium phosphate, acidified sodium chlorite, chlorine dioxide, or peroxyacid solutions, under the described conditions of use, would be of no safety concern."[72] It then re-examined the issue in 2012, concluding that "chemical substances in

67 Codex Alimentarius CAC/GL 78-2011: 'Guidelines for the control of Campylobacter and Salmonella in Chicken meat', 2011.

68 OECD (2018), 'Meat Consumption'. Available at: https://data.oecd.org/agroutput/meat-consumption.htm

69 The European Union summary report on trends and sources of zoonoses, zoonotic agents and food-borne outbreaks in 2016.

70 S. M. Crim et al. (2015), 'Morbidity and Mortality Weekly Report 64', 495 (2015).

71 R. Johnson, US-EU Poultry Dispute on the Use of Pathogen Reduction Treatments (PRTs), Congressional Research Service, 2015

72 European Food Safety Authority (2005), 'Opinion of the Scientific Panel on food additives, flavourings, processing aids and materials in contact with food (AFC) on a request from the Commission related to Treatment of poultry carcasses with chlorine dioxide, acidified sodium chlorite, trisodium phosphate and peroxyacids', EFSA Journal 297, 1 (2005).

poultry are unlikely to pose an immediate or acute health risk for consumers."[73] In fact, the Commission even submitted a proposal in 2008 to relax EU rules on PRTs. The effort, however, was struck down by member states with all except the UK voting against.[74]

Fears about 'chlorinated chicken' are particularly unfounded as the treatment has not been used "for a long time" according to Ted McKinney, United States Department of Agriculture under-secretary for trade and foreign agricultural affairs.[75] More pertinently, ready bagged salad in the UK is already washed in a chlorine solution[76] and is not a safety concern for consumers. Chlorine compounds are similarly used in disinfecting UK drinking water with the Adam Smith Institute estimating a similar chlorine content for an entire chlorine washed chicken as for a glass of water.[77]

An increasingly common PRT treatment is peroxyacetic acid (often referred to as peracetic acid or PAA).[78] This treatment was specifically considered by EFSA in 2014 where they confirmed the evidence supporting pathogen reduction and found no supporting evidence of harmful effects to humans. Additionally, they found that "Acetic acid, peroxyacetic acid, octanoic acid, peroxyoctanoic acid and hydrogen peroxide are effectively neutralized before discharge of wastewater. There is, therefore, no concern about environmental toxicity of these compounds."[79]

There have also been concerns raised around animal welfare in US agriculture. These concerns too are largely unfounded. The difference between the US and EU is mainly in approach, with the EU adopting a prescriptive, rules-based approach, and the US focusing more on informing consumer decisions. As such, complaints regularly refer to the differing

73 European Food Safety Authority (2012), 'Scientific Opinion on the public health hazards to be covered by inspection of meat (poultry)'.
74 EurActiv, (2008, June), 'EU vets reject plans to lift US poultry ban'.
75 Farmers Weekly (2018), 'USA 'sick and tired' of chlorinated chicken debate'. Available at: https://www.fwi.co.uk/business/usa-sick-and-tired-of-chlorinated-chicken-debate
76 BBC News (2016), 'Washing salad and vegetables: What is the best technique'. Available at: https://www.bbc.co.uk/news/uk-36822962
77 Peter Spence (2017), 'Chlorinated Chicken', Adam Smith Institute, 2017. Available at: https://static1.squarespace.com/static/56eddde762cd9413e151ac92/t/59747741bf629a8e3d01a494/1500804930480/Chlorinated+Chicken.pdf
78 Food Safety Magazine (2014), 'Peracetic Acid in the Fresh Food Industry'. Available at: https://www.foodsafetymagazine.com/signature-series/peracetic-acid-in-the-fresh-food-industry/
79 European Food Safety Authority (2014), 'Scientific Opinion on the evaluation of the safety and efficacy of peroxyacetic acid solutions for reduction of pathogens on poultry carcasses and meat'.

legislative standards between the US and EU. However, differing legislation does not mean worse outcomes. An example of this is in egg production. In the EU, a 2012 ban on battery cages[80] led not to an increase in free-range eggs, but to 'enriched cages' only slightly larger than the previous basic cages. Enforcement has also been patchy with Italy and Greece being referred to the CJEU for failing to enforce the ban.[81] In the US, producers have recently been switching production to free range without the need for compulsion. McDonald's announced its intention to go cage free in 2015,[82] and more than 60 large food companies, including Walmart, have pledged to go cage free in the next 10 years.[83] Returning to poultry meat, the response to consumer welfare concerns is the same with Perdue Farms (the 4th largest poultry producer in the US) announcing a series of reforms to improve animal welfare in 2016.[84]

Different farming methods often mean different uses of technology. One example of this is the use of hormones in certain meat products. In Germany, bulls are not castrated so their hormone levels are naturally higher than castrated animals. Hormone injections in the US are used to compensate for this, leaving overall hormone levels similar.

There are also many technologies which reduce cost and increase productivity. These technologies are very important to the UK as they will go a long way to reducing the cost of UK production. Examples here include genome edited crops such as new disease resistant or higher nutrient content strains of wheat that are being developed. Blight resistant potatoes are also being developed.[85] Currently, farmers in the UK will spray potatoes up to 15 times per growing season, and organic potatoes are hardly produced in the UK, to protect against *Phytophthora infestans*,

80 European Commission (2012), 'Laying Hens'. Available at: https://ec.europa.eu/food/animals/welfare/practice/farm/laying_hens_en

81 European Commission (2013), 'Animal Welfare: Commission refers Greece and Italy to Court for failure to enforce ban on cages for laying hens'. Available at: http://europa.eu/rapid/press-release_IP-13-366_en.htm

82 Associated Press (2015), 'McDonald's says it will switch to cage-free eggs in the US and Canada', Associated Press (in The Guardian), 2015. Available at: https://www.theguardian.com/business/2015/sep/09/mcdonalds-scage-free-eggs-us-canada

83 Philip Lymbery (2016), 'The US has promised to stop caging hens. Why can't Britain too?', The Guardian, 2016. Available at: https://www.theguardian.com/commentisfree/2016/apr/11/us-stopped-caging-hens-uk-retailers-cage-free

84 Humane Society of the United States (2016), 'Breaking news: Perdue announces major reforms for chickens; progress spotlights poultry problems, solutions'. Available at: https://blog.humanesociety.org/2016/06/perdue-animal-welfare-reforms.html

85 Perkowski, M. (2018), 'High-fiber, gene-edited wheat cleared for commercialization', Capital Press, 5 April 2018.

the fungus which caused the Irish potato famine.[86] It has been estimated that farmers in Europe spend around £400 per hectare spraying for blight[87] so the potential for cost savings to consumers is significant. Similar innovations are possible in vegetable growing as well as eventually in livestock.

Genome and Gene Editing are not the only potential innovations that could be adopted in the UK, however. These also include greater use of indoor and 'vertical farming' which can produce higher yields with less land and water use [88,89] as well as increased use of 'no till' farming, and potentially the manufacture of artificial meat and cheese.[90]

86 Ridley, M (2018), 'Innovation in food production', IEA Current Controversies No. 64, November 2018. Available at: https://iea.org.uk/publications/effects-of-innovation-in-agriculture/

87 BBC News (2014), 'Genetically modified potatoes "resist late blight."', 17 February 2014. Available at: https://www.bbc.co.uk/news/science-environment-26189722

88 Futurism (2016), 'World First: Robot-Run Farm to Harvest 30,000 Heads of Lettuce Daily', 28 January 2016. Available at: https://futurism.com/world-first-robot-run-farm-harvest-30000-heads-lettuce-daily/

89 Nederhoff, E. M. and Stanghellini, C. (2010), 'Water use efficiency in tomatoes in greenhouses and hydroponics.' Practical Hydroponics and Greenhouses 115:52-59, 2010.

90 Ridley, M. (2018), 'Innovation in food production', IEA Current Controversies No. 64, November 2018. Available at: https://iea.org.uk/publications/effects-of-innovation-in-agriculture/

7. Subsidies and support

Summary:

The UK should reform the support to farmers: decouple payments from land, simplify the system of payments, incentivise innovation and improvement in productivity, separate out support for environmental remediation and land management from farming activities.

The UK should present its TRQs and AMS in the WTO schedules to other member states.

7.1 Reform to CAP subsidies

Subsidies comprise a significant proportion of UK farmers' income. Given the reliance on subsidies, there is a risk that a potentially significant proportion of UK agricultural holdings are unprofitable and unproductive, and only continue to operate because of subsidy payments and limited import competition. In 2016/17, around 20% of farms in the UK failed to make a profit, even after taking into account the BPS support, and over 50% of farms were in the lower income category (less than £20,000 Farm Business Income),[91] suggesting that the current support system is not working to promote a profitable, productive industry. Any changes to subsidies though would need to be carefully managed to avoid suddenly destabilising the industry.

91 Department for Environment and Rural Affairs (2017), 'Agriculture in the United Kingdom (2017)'. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/741062/AUK-2017-18sep18.pdf

The Government has committed to maintaining the current level of agricultural funding under CAP until 2022.[92] After this, we recommend that the current system of multiple programmes and types of subsidies be simplified into a national system of decoupled direct payments to farmers supplemented by funding directed towards clear objectives. The current level of support provided can be maintained through the reallocation of funding amongst different forms of support. Any reforms to subsidies and support would have to be compliant with the WTO Agreement on Agriculture.

We propose that:

- Payments under the **Basic Payment Scheme** are based on a new index of need taking into consideration a number of factors such as income, land value, etc. Payments should not be linked to land; the current system creates perverse outcomes whereby already wealthy large landowners are the some of the largest recipients of funding. Rather, the basis for payments should be related to the objectives of providing this support: addressing volatility and guarding against income shocks.
- BPS support should be capped to avoid excessive payments to single owners.
- Present restrictions on activities which may be undertaken on land to be eligible for BPS should be removed; diversification towards tourism, energy generation and other productive, profitable activities should not be discouraged.
- Payments related to environment and land management should be separately identified from direct agricultural support which should only be focused on actual farming activities. Payments should be provided for **environmental remediation and land management** under specific schemes with defined criteria for distribution and specific objectives such as maintenance of public rights of way. Two of the single largest CAP payment recipients last year were English Heritage and the Royal Society for the Protection of Birds because of their large landholdings. Worthy though these entities are, any public support for such activities should be channelled through funding for historical and environmental programmes rather than agricultural support.

92 Michael Gove, 'Farming for the next generation', Speech to Oxford Farming Conference 2018. Available at: https://www.gov.uk/government/speeches/farming-for-the-next-generation

- All **coupled support** linked to production (primarily the VCS programmes in Scotland) should be discontinued. These policies are distortionary and promote production which may not necessarily match market demand and have an adverse impact on prices. These policies are also not supported by the WTO.
- The distortionary measures of market intervention and private storage aids should also be eliminated.
- The **less favoured area support scheme** should be eliminated as they artificially support potentially otherwise unproductive farms. The ancillary benefits, such as land maintenance which supports tourism, can instead be supported through the separate payments for land management.
- The **animal disease compensation fund** should continue to be maintained to support the safety of the domestic food supply chain and the UK's international reputation of producing safe, high quality food.
- Payments to **encourage innovation and enhance productivity** should be introduced, particularly given that UK farm productivity is lower than that of competitors.[93] Such payments cannot just be an incentive to increase production, but rather support investment in activities that would improve the long-term productivity of the sector, e.g. research and development, training and knowledge transfer. For example, the funds could support projects undertaken in collaboration between higher education institutions and the agricultural industry to develop antibiotic and pesticide resistance and new use of technologies; such projects are potentially risky and may not occur otherwise with just private sector investment. There are already some examples of such successful projects, such as the Higher Education Funding Council of England support to Harper Adams University to develop a Dairy Innovation Centre in partnership with Dairy Crest, the leading British dairy company, for co-location of research, development and technical teams and collaboration in developing the university curriculum. A dedicated fund to support innovative projects in agriculture could potentially generate significant gains in productivity and training.
- Support should be made available to farmers who wish to **retire**. At present, the EU operates an early retirement scheme for farmers which

93 The Economist (2015), 'Dig for victory!' Available at: https://www.economist.com/news/britain/21642157-why-british-farmers-are-less-productive-their-international-competitors-dig-victory

member states may opt into through their CAP funding. This early retirement scheme offers EUR 15,000/annum per farmer (for up to ten years, or EUR 150,000) who retires after the age of 55 after being engaged in farming activities for no less than ten years. The farmer is only eligible up to his/her 75th birthday. Certain EU countries, including France and the Republic of Ireland, have historically opted-in to this scheme. The retirement fund could potentially support consolidation and more effective use of land. Only around 4% of farmers in the UK are under 35 years of age while around 30% are older than 64 years.[94]

- The Government could encourage the development of an **insurance scheme** to cover extraordinary losses due to natural disasters. Historically, there has been a reluctance by UK farmers to insure against risks, but this could also reflect the direct support already provided through CAP subsidies. As supports become targeted differently, the market demand could grow.

Such forms of support would fall within the WTO's Green box of allowable support. This would also limit the value of AMS that the UK would seek to include in its WTO schedules.

7.2 TRQs and AMS

As the UK sets its own WTO schedules, it should present its proposals on TRQs and AMS together to other member states and separately from the EU. The UK will be sending important signals with TRQs and AMS proposals. Especially for AMS, the UK should not offer too high an amount (much less than the imputed share of the EU's very high AMS number) to signal its intention for trade liberalisation. In return, this could encourage third countries to accept a share of TRQs rather than replication.

The UK and EU have offered to divide the TRQs based on historic market share. We have developed some ideas on how these divisions can be accomplished.

In certain sectors, the UK should be strongly considering the full removal of all tariffs and quotas. Examples include tropical fruits that the UK does not currently produce (see appendices). Some consideration in these areas should, however, be given to developing country fruit producers currently

94 European Commission (2017), 'CAP in your country: United Kingdom'. Available at: https://ec.europa.eu/agriculture/sites/agriculture/files/cap-in-your-country/pdf/uk_en.pdf

benefiting from schemes such as GSP and GSP+. In exchange for a more generally open agricultural market in fruit, the UK might consider compensation ACP farmers through structural adjustment loans and/or grants.

There is also a strong case to be made for moving some existing quotas to a first-come first-served *erga omnes* basis. This would end the privileging of continental producers over those from outside the EU, allowing more competitively priced food access to the UK market while retaining a good deal of leverage in trade negotiations. Examples of sectors where this could be advisable include beef and dairy.

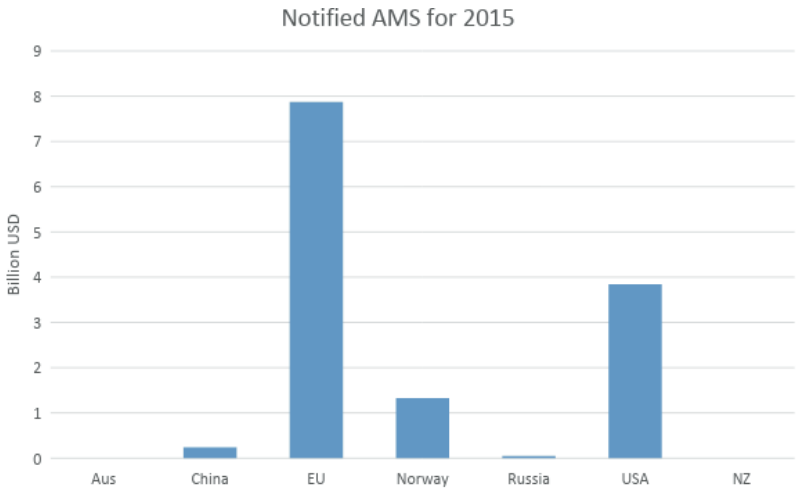
In further sectors, TRQs could also be liberalised. This liberalisation might be appropriate for high tariff – low quota sectors such as dairy. For example, Canada has a quota only for 4,000 tonnes of cheese per year into the EU. In the UK alone, we consume roughly 700,000 tonnes per year.[95]

Finally, in the event of 'no-deal', there are certain of the above steps that would be effectively mandated if the UK wishes to avoid food price inflation and to minimise burdens on food importers. These steps include the full removal of all TRQ restrictions on rice, tropical fruits, and wines, as well as moving TRQs to an *erga omnes* basis for products such as beef, dairy, including butter, and cereals including wheat.

The graph overleaf shows comparable AMS declarations for a number of developed countries and significant Agricultural producers.[96]

95 British Cheese Board (2019), 'Top Cheese Facts'. Available at: http://www.cheeseboard.co.uk/facts/top_cheese_facts-2

96 2015 chosen due to the range of data available for that year via the WTO at: http://agims.wto.org/Pages/ViewDataNI02.aspx



The EU AMS number is much higher than for comparable countries. One of the reasons for this number is to provide insurance just in case some of the EU green box subsidies / direct payments are found to be amber box subsidies that should be included in the overall AMS. It may be that the UK wishes to take a similar approach to give it flexibility on direct payments to farmers to accommodate changes resulting from Brexit. It should be noted that if the UK seeks to merely divide the EU AMS by a number to reflect the size of its economy compared to the EU 27, that would lead to quite a large AMS number. The UK's trading partners would certainly have questions about what the UK intended to do with such a large production subsidy.

8. Regulatory measures

Summary:

The UK should ensure that its regulations are based on sound science and are not unnecessarily protectionist. Distortions to competition and trade should be minimised to the extent necessary to achieve regulatory goals.

The UK should also consider developing a more rational risk-management standard than the precautionary principle

The UK should seek to agree on mutual recognition agreements with the EU, and should be prepared to rely on the WTO SPS/TBT Agreement to challenge any unnecessary restrictions on trade.

8.1 Approach to UK regulations

The Government should ensure that high standards are maintained and can look to build on existing standards systems, such as Red Tractor, to promote safe, quality products. This does not necessarily mean that standards will remain the same as in the EU; for example, the EU does not promote beef grading which reflects the quality of beef, but instead promotes certain types of beef that are commonly produced in the EU27 countries.

The Government should regulate on the basis of sound science, and in compliance with the letter and the spirit of WTO SPS and TBT Agreements. This route would require reviewing currently applied SPS requirements and other regulations to determine whether they are necessary, need to be reformed, or can be eliminated altogether. We do not advocate the removal of all EU SPS requirements, but only those which are shown not to be based on sound science or which are not the least restrictive to trade possible.

EU SPS restrictions which may become relevant for UK agriculture include, but are not limited to, the beef hormone ban, strict requirements for the cleaning of animal products (mostly affecting poultry) and opt-outs for the cultivation of genetically-engineered plants. These measures are all measures which are (i) worth considering discarding after exit from the CAP because they have already been shown to be scientifically unsound, (ii) potentially damaging to future UK exports to the EU, and (iii) likely to have a dampening effect on UK consumer welfare. The beef hormone ban targets all meat produced with hormones and beta agonists and has previously been found to violate the EU's (and therefore the UK's) WTO requirements.[97]

The UK should also consider developing a more rational risk-management standard than the EU's application of the precautionary principle. This standard should be based on the balance of scientific evidence (rather than the absence of it) that would yield increased global trade, lower food prices for consumers and additional opportunities for producers. The precautionary principle is not a measure adopted by the WTO, and there is potential for conflict and/or misuse of the principle to unnecessarily prevent international trade into the EU. The way in which the EU uses the precautionary principle arbitrarily erects barriers to international trade; trade in agricultural products is perhaps the most vulnerable to this.

In terms of TBT measures, we are of the opinion that the scope of Article 14 on food regulation[98] is drafted so widely that there is potential for it to be misused in order to restrict and/or prevent food products from entering into the EU. There are also requirements on producers that all labelling, advertising, and presentation of food must not mislead customers. All food business operators are also required to keep records to enable the supply chain of the food to be traced. Such restrictions can be costly and affect the ability of international suppliers to compete in the EU marketplace. Although we do not advocate complete abstinence from such regulation, individual FTAs should allow the UK to take a practical approach to such decisions.

97 United States Trade Representative (2016), 'The 2016 National Trade Estimate Report', p. 148. Available at: https://ustr.gov/sites/default/files/2016-NTE-Report-FINAL.pdf

98 European Parliament (2002), 'Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety'. Available at: https://eur-lex.europa.eu/eli/reg/2002/178/oj

In the context of UK trade post-CAP, liberalisation of TBT measures to comply with a “necessity test” which is the least trade-restrictive and market-distortive consistent with a legitimate and clearly stated regulatory goal will lead to increased trade and consumer welfare benefits while ensuring safe food.

8.2 Managing divergence with EU standards and regulations

Any divergence in UK standards from EU standards would also need to be carefully managed. It is likely that many EU SPS measures may be used against UK imports if it departs from the EU’s SPS framework, and the UK will have to be prepared to challenge these under the SPS Agreement as other countries do. If the UK and EU could also have an FTA, as we recommend which would contain a comprehensive SPS chapter, the basis of a claim could be formed.

The EU is likely to remain a major agricultural trading partner of the UK in the future, this likelihood highlights the need for a series of mutual recognition agreements on agricultural products standards which would prevent non-legitimate applications of SPS measures. In order to progress on the reduction of these barriers, the UK (once outside the EU) will be able to bring WTO cases on violations of the SPS Agreement as other WTO members do. If UK exports are blocked, then the SPS Agreement concept of equivalence can be relied on. Article 4 of the SPS Agreement provides that ‘Members shall accept the sanitary or phytosanitary measures of other Members as equivalent, even if these measures differ from their own or from those used by other Members trading in the same product, if the exporting Member objectively demonstrates to the importing Member that its measures achieve the importing Member’s appropriate level of sanitary or phytosanitary protection. For this purpose, reasonable access shall be given, upon request, to the importing Member for inspection, testing, and other relevant procedures.’

It is likely that any UK-EU FTA will have an SPS chapter where both sides would rely on deemed equivalence (such as used by the EU in CETA, EU-Japan and the NZ-EU Veterinary Agreement). The UK and EU would agree that, since all SPS regulations were identical on day one of Brexit, they would both deem them equivalent. This agreement does not obviate the need for checks, but enables physical checks to be lowered through risk mitigation. There would be a managed divergence mechanism thereafter where as long as each Party regulated in ways that minimise

the impact on trade and competition consistent with a legitimate and clearly stated regulatory goal, and maintained the same regulatory goals that which were objectively achieved by the regulation, equivalence should not be withdrawn. A joint committee would oversee the process, but the UK would at least seek to ensure that equivalence once given could not be unreasonably withheld.

Given the UK's approach to animal health issues, any blocking of UK exports would likely be a violation of the equivalence provisions in an FTA and the UK could bring a claim under the FTA. Since EU and UK standards for the production of agricultural products are presently identical, determining equivalence should be a relatively straightforward process after exit from the EU. That being said, the EU has historically been reluctant to grant equivalence to other major agricultural producers in developed countries, notably the US. The UK should learn from the experience of US agricultural exporters. The process of managing the divergence from these standards without being closed out of the EU market will be the principle challenge in this area.

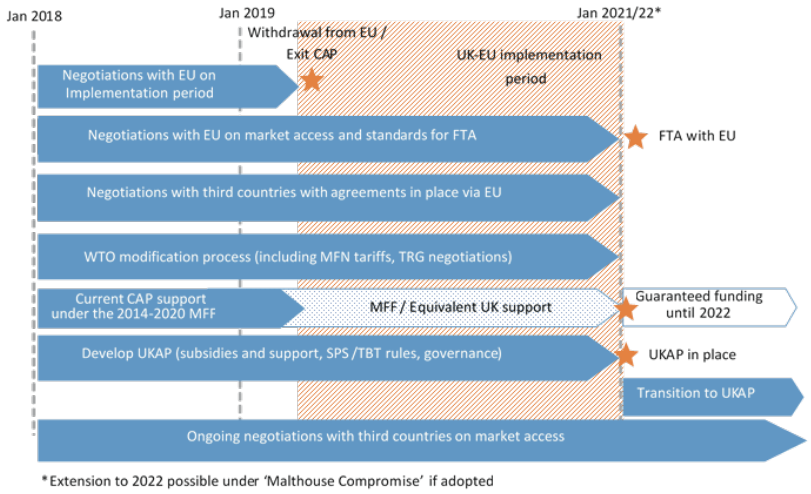
9. Pathway to a UK Agriculture Policy

9.1 Steps towards a UK Agriculture Policy

Upon exiting the EU in 2019, the UK will also be leaving the CAP, assuming the UK is outside the EU customs union. Within this period, the UK will have to negotiate the terms for the implementation period between March 2019 and December 2020 and then agree on the terms of the comprehensive FTA that will follow. Further, the UK will also have to undertake market access negotiations with third countries with which the UK has agreements through the EU and the WTO rectification process for UK's own schedules to establish its own MFN tariffs and TRQs.

The UK Government has guaranteed that the current level of agricultural funding under CAP will continue until 2022. The overall implementation period negotiations with the EU as part of the withdrawal agreement will determine to what extent payments continue under the 2014-2020 Multiannual Financial Framework or are provided separately by the UK Government. This continuation will provide certainty and stability for the industry until the UK agricultural policy takes effect. Depending on the extent of reforms, particularly for subsidies and government support, there may still need to be a transitional period until the UK agricultural policy is fully developed, with consultation with industry, and ready for implementation. The following figure illustrates the high-level timelines towards a UK agricultural policy.

Figure 8: High level timelines towards a UK agricultural policy



9.2 Devolution

In developing a UK agricultural policy and independent trade policy, it is critical that there is consistency within the UK single market. Historically, agriculture policy has been devolved to England, Wales, Scotland, and Northern Ireland under their respective devolution settlements.[99] The division of competencies are based on reserved matters, i.e. any areas of policy that are not expressly reserved for the UK Parliament are within the competencies of the devolved administrations.

In practice though, agricultural policy has been in the control of the EU through the Common Agricultural Policy and this has been set in Brussels. Therefore, the powers that have been devolved are those powers that the UK Parliament was actually in a position to devolve, i.e. those with respect to areas not covered by the CAP; and the devolution settlements prohibit the devolved administrations from legislating contrary to EU law. Even though aspects of agricultural policy are already devolved to the four countries, this does not necessarily mean that other areas which the EU determines will automatically be devolved once decision-making powers

99 'Scotland Act 1998 (as amended by the Scotland Act 2012)', 'Northern Ireland Act 1998', 'Government of Wales Act 2006'.

in these areas are repatriated to the UK. The Withdrawal Act[100] repatriates all powers currently exercised by the EU to the UK Parliament with review following to determine which specific policy areas should sit with the devolved administrations.

Issues of trade and international policy are not devolved, and so the ability to set tariffs and TRQs would be with Westminster. This devolution should also apply to SPS / TBT regulatory measures that serve as non-tariff barriers to trade. Any divergence in SPS / TBT within the UK will create fragmentation within the UK single market.[101]

Issues of subsidies and government support is likely to be most challenging as the four countries receive varying levels of support. However, if these are nationally funded, then there should be a national uniform framework for support. The Government should consult with the four countries though to ensure that there are transition arrangements in place. New policies should be in consultation with the devolved administrations.

There are additional mechanisms whereby the devolved administrations can give consent for Westminster to legislate on a devolved matter. For example, Scotland can allow Westminster to legislate on matters which would otherwise be devolved through legislative consent motions, and Westminster can use Scotland Act Orders (SAOs) to make amendments to UK legislation which specifically affects Scotland.[102]

100 'European Union (Withdrawal) Act 2018'. Available at: https://www.legislation.gov.uk/ukpga/2018/16/contents

101 The only area where SPS changes might be envisaged would be to protect the invisibility of the Irish border.

102 Gov.uk (2018), 'Devolution settlement: Scotland'. Available at: https://www.gov.uk/guidance/devolution-settlement-scotland

10. Concluding comments

Exiting the EU provides some of the greatest policy reform opportunities that the UK is likely to see for a generation – nowhere is this more true than in agriculture and fisheries policy. The new Agriculture Bill can be used to greater support the industry to become more productive and innovative using new technologies, collaboration with universities, increased research and development, training, etc. Developing a new agricultural policy for the UK provides an opportunity for UK farmers to become more integrated into global supply chains which they have been locked out of for 40 years.

Decades of European distortions can be corrected through decisive policy choices centred around three key areas for reform: (i) tariffs and quotas, (ii) subsidies and supports and (iii) SPS / TBT regulatory barriers. A reduction or elimination of tariff barriers (for goods not commonly produced in the UK) would serve to reduce prices for consumers and serve as a powerful negotiating tool with third countries eager for liberalised agricultural market access in Europe. SPS and TBT regulation of agriculture would be best reformed by moving away from the precautionary principle towards a regulatory principle based on sound science that focuses on outcomes.

Subsidy payments should be reformed to support only active farmers and be fully decoupled from land and production to prevent misalignment of incentives throughout the sector. Reforming the funds available can further promote innovation and be productivity-enhancing, such as through an innovation fund, and mitigate risks, such as through an insurance fund. Environmental goals can be achieved through separate environmental remediation and land management funding.

We believe that there is a bright future for UK farmers if these policy choices are adopted. Transitional arrangements will be needed, but a more open and liberal farm policy will be beneficial for the UK's farmers, food industry, and consumers if the UK is able to use the Brexit moment to pivot to the policy that is suggested here.

Appendix

A.1 Sector detail

The following subsections set out discussion of specific sectors, including applicable tariffs and TRQs. These are based on publicly available information at the time of the report, and any analysis is indicative only.

Beef and Veal

Beef remains a major component of the agricultural sector in the West Country, Scotland and Northern Ireland, both in terms of the land used for beef production and the value of total sales. For the 52-week period ending on 25 February 2018, UK consumers spent £2,220.2m on 283,101 tonnes worth of beef products. While total consumption by value is down 1.7% on the previous year, consumption by volume is up for most products, including fresh and frozen beef marinating and fresh pre-packed pasties (16.6% and 8.7% respectively). Consumption by volume is down for fresh and frozen beef for roasting (-11.6%), stewing (-1.6%) and burgers and grills (-1.0%). Total annualised market penetration for beef is very high at 86.4% of the population.[103] The average Briton eats 18.4 kg of beef and veal per annum.[104]

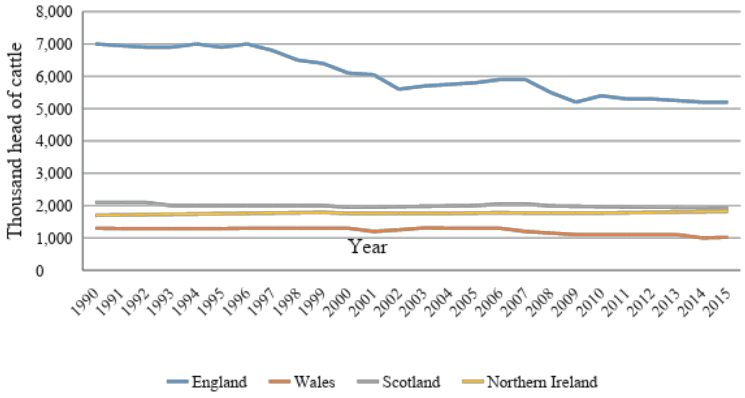
The UK cattle and veal industry has not permanently recovered from the Bovine Spongiform Encephalopathy ('BSE') crisis of the mid-1990s. Domestic consumption was primarily affected in the years immediately following the crisis, while international sales have never fully recovered,

103 AHDB (2018), 'GB household beef and lamb purchases', 25 February 2018. Available at: http://beefandlamb.ahdb.org.uk

104 AHDB (2016), 'MeatStats 3: UK Balance Sheet'. Available at: http://beefandlamb.ahdb.org.uk/wp/wp-content/uploads/2016/07/MeatStats-3-UK-Balance-Sheet-190716.pdf

partially because of UK competitiveness and partially because of general consumer confidence in UK beef products. As with other UK livestock products, England dominates cattle and calf production. It is notable that Scottish production is subsidised by suckler beef VCS payments and thus remains artificially high and that Northern Irish production far outstrips other native commodities, even without production subsidy payments.

Figure 3: Cattle and Calves in the UK, 1990-2015



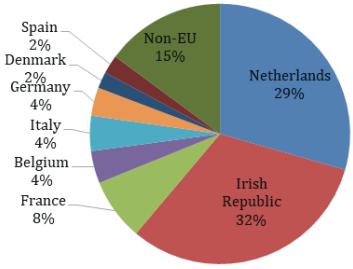
In 2017, UK farms produced 901.5 thousand tonnes of beef and veal, of which 147.3 thousand tonnes was exported. A further 364.3 thousand tonnes was imported for a total consumption of 1,204 thousand tonnes.[105] The UK is thus largely self-sufficient in beef. UK exports and imports are dominated by fresh/frozen beef. UK exports of beef mainly go to EU nations (the Republic of Ireland, the Netherlands and France). UK imports of beef are dominated by the Republic of Ireland (72%) but include some non-EU nations (Brazil, Australia, Uruguay, etc.).[106] The market shares of the non-EU nations are seriously limited by the TRQ set by the EU.

105 AHDB (2018), 'UK Cattle Yearbook: 2018'. Available at: http://beefandlamb.ahdb.org.uk/wp-content/uploads/2019/02/VB2033-CattleYearbook_WEB-1.pdf

106 AHDB (2018), 'UK Beef Trade', 17 April 2018. Available at: http://beefandlamb.ahdb.org.uk/wp-content/uploads/2018/04/UK-beef-trade-170418.xlsx

Figure 4: UK Exports and Imports of Beef and Veal, 2017 (volume)

Exports



Imports

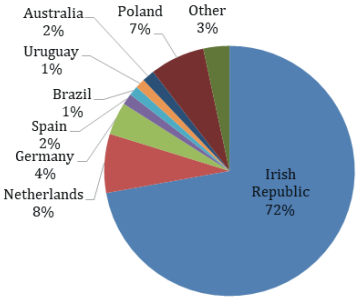


Table 2: EU Beef Quotas and Import Duties – WTO certified schedule[107]

Commodity	Quota (WTO certified schedule) (tonnes)	Import duty MFN	Within-quota import duty	Origin
Beef and veal	High-quality beef: 17,000 Other: 11,700	12.8% + EUR 141.40/100 kg – 12.8% + EUR 304.1/100 kg	20% (varies for edible offal)	Argentina
	High-quality beef: 7,150 Other: 2,250	12.8% + EUR 141.40/100 kg – 12.8% + EUR 304.1/100 kg	20% (varies for edible offal)	Australia
	5,000	12.8% + EUR 141.40/100 kg – 12.8% + EUR 304.1/100 kg	20% (varies for edible offal)	Brazil
	High-quality beef: 2,300 Other: 4,000	12.8% + EUR 141.40/100 kg – 12.8% + EUR 304.1/100 kg	20% (varies for edible offal)	Uruguay
	High-quality beef: 11,500	12.8% + EUR 141.40/100 kg – 12.8% + EUR 304.1/100 kg	20% (varies for edible offal)	US / Canada
	800	12.8% + EUR 141.40/100 kg – 12.8% + EUR 304.1/100 kg	20% (varies for edible offal)	Other
	High-quality beef: 1,300 Other: 107,703 Live animals: 25,491 heads	12.8% + EUR 141.40/100 kg – 12.8% + EUR 304.1/100 kg Live animals: 10.2% + EUR 93.10/100 kg	20% (varies for edible offal) Live animals: 4% – 12.0% + EUR 58.20/100 kg	Erga Omnes

107 WTO (2016), 'Certification of Modifications and Rectifications to Schedule CLXXIII – European Union', 1 December 2016.

Table 3: EU Beef Quotas and Import Duties for 'high-quality beef' – EU Regulation[108]

Commodity	Quota (EU regulation) (tonnes)	Import duty MFN	Within-quota import duty	Origin
Beef and veal	29,700	12.8% + EUR 141.40/100 kg – 12.8% + EUR 304.10/100 kg	20%	Argentina
	9,400	12.8% + EUR 141.40/100 kg – 12.8% + EUR 304.10/100 kg	20%	Australia
	10,000	12.8% + EUR 141.40/100 kg – 12.8% + EUR 304.10/100 kg	20%	Brazil
	6,300	12.8% + EUR 141.40/100 kg – 12.8% + EUR 304.10/100 kg	20%	Uruguay
	11,500	12.8% + EUR 141.40/100 kg – 12.8% + EUR 304.10/100 kg	20%	US / Canada
	1,300	12.8% + EUR 141.40/100 kg – 12.8% + EUR 304.10/100 kg	20%	New Zealand
	1,000	12.8% + EUR 141.40/100 kg – 12.8% + EUR 304.10/100 kg	20%	Paraguay
	48,200	12.8% + EUR 141.40/100 kg – 12.8% + EUR 304.10/100 kg	0%	Erga Omnes

108 European Parliament (2012), EU Regulation 481/2012. Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32012R0481

There is a relatively high fill rate of quotas for high-quality beef imports. For example, imports from Argentina, Uruguay, Brazil and Paraguay had fill rates of 75%, 99%, 93% and 92% respectively in 2016.[109] Outside the quota, imports face a 12.8% tariff plus an additional levy of EUR 141.40/100 kg to EUR 304.10/100 kg. By tarifficating the quota and then systematically lowering/eliminating the tariff through free trade negotiations, significant consumer welfare benefits are potentially available. While these changes would further expose UK beef farmers to Latin American and North American competition (subject always to reaching agreement with exporting countries on matters such as the beef hormone ban and other SPS/TBT restrictions), they would be protected from artificially low-cost European beef exports through the ACMD mechanism described elsewhere this document, or through ordinary countervailing duty or safeguard mechanisms as discussed earlier in this document.

The largest beef producer in the world is the US (19% of global production), followed by Brazil (15%), the EU (13%), China (11%) and India (7%). These countries would likely be the biggest competitors to the domestic beef industry post-Brexit, assuming an accommodation is reached on certain SPS/TBT regulations. The US, Canada, Australia, New Zealand, Brazil and Uruguay already have access to a TRQ for non-hormone treated beef, but they may seek much greater access to the UK market. Although the US and Canada have not filled the quota for high-quality beef (so-called 'Hilton Quota'[110]), this may be because of European regulatory barriers (in the form of bans on certain types of antimicrobial washes to eliminate pathogens). Since 2013/14, when Argentina obtained a share of the high-quality beef quota, there has been much more competition into the EU from all the major producers (the US's share of the high-quality quota is now below 50%).[111] In recent years, the destination for Argentine beef has shifted from Chile, Russia and the EU towards China,[112] possibly

109 EU Meat Market Observatory. Available at: https://ec.europa.eu/agriculture/market-observatory/meat/beef/statistics_en

110 Defined by the EU as "High quality" meat answering the following definition: "Special or good-quality beef cuts obtained from exclusively pasture-grazed animals, aged between 22 and 24 months, having two permanent incisors and presenting a slaughter liveweight not exceeding 460 kg, referred to as 'special boxed beef', cuts of which may bear the letters 'sc' (special cuts)". Qualification for the quota is subject to conditions laid down in the relevant Community provisions.

111 U.S. Meat Export Federation (2018), 'Statistics and Trade Access'. Available at: http://www.usmef.org/usmef-statistics-and-trade-access/

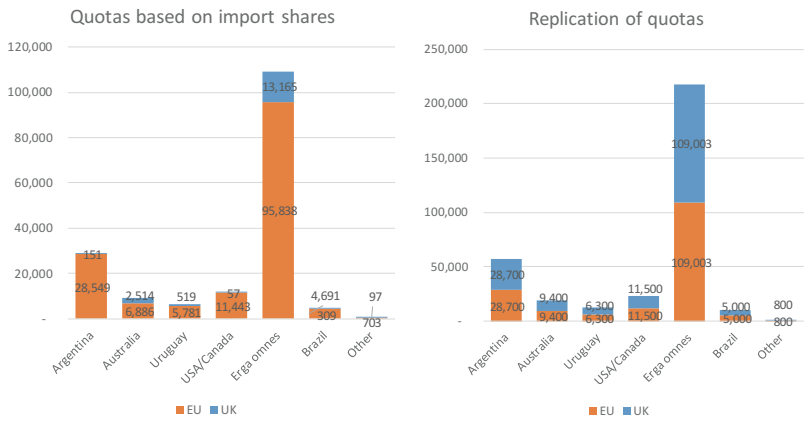
112 AHDB (2016), 'Argentinian Beef Exports to China Soar in 2015'. Available at: http://beefandlamb.ahdb.org.uk/market-intelligence-news/argentinian-beef-exports-to-china-soar-in-2015/

as a result of its more relaxed standards for beef.[113]

The figures below illustrate the potential quota allocations under the first two options for determining quotas discussed earlier, based on the average UK share of imports to the EU from specific countries. The potential quotas are based on the WTO certified schedule, using import quantities between 2014 and 2016. Given public data availability constraints on the share of imports under quotas to each EU member state, the import shares are estimated based on total import quantities for the relevant broad HS2012 product categories. The analysis should be refined further with any data available on UK shares of imports specifically within the TRQs.

The figures demonstrate the differential trading patterns across countries. Under the option of determining quotas based on import shares, the UK would provide around 27% of the current quota to Australia, given the relatively higher share of exports of beef products to the UK compared to the rest of Europe, while allocating smaller shares to countries such as Argentina that export relatively little to the UK. The second option however, would double the quotas provided, and have a disproportionate impact on access to the UK market.

Figure 5: Potential import quotas of Beef into the EU and UK (tonnes)[114]



113 Global Meat News (2016), 'China and Argentina agree landmark beef deal'. Available at: http://www.globalmeatnews.com/Safety-Legislation/China-Argentina-beef-business-grows-but-antibiotic-fears-remain

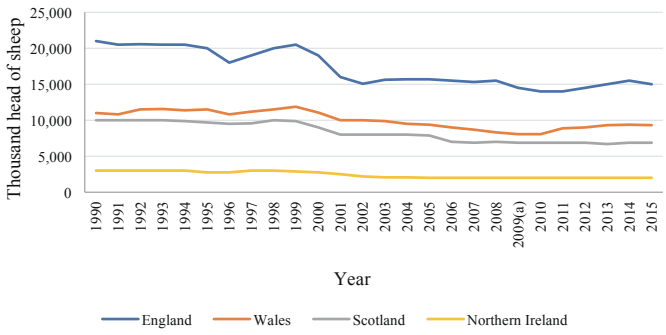
114 Analysis using Eurostat data. Excludes live animals.

Post-Brexit, expanded market access for UK beef abroad would require a more open domestic market. There is potential for UK beef exports – for example, after the end of the BSE-induced ban, Irish beef farmers expected to sell 20,000 tonnes of beef to the US. However, a liberalised market could have a negative impact on Scottish and Irish beef production, which is particularly inefficient.[115] These trade-offs (in the case of beef, increased opportunity for Northern Irish beef farmers, potentially at the expense of highly-subsidised Scottish and Irish beef farmers) emphasise the need for Westminster-led agricultural negotiations.

Lamb and Sheepmeat

UK consumers ate 297,400 tonnes of sheepmeat in 2017.[116] The average UK consumer eats 5.1 kg of lamb meat per annum.[117] For the 52-week period ending on 25 February 2018, UK consumers spent £579.5m on 65,648 tonnes of lamb meat. Both of these figures are down against the previous period (by 4.6% and 10.1% respectively). In a difficult year for lamb, only marinades have shown growth in sales volume at 2.3% year-on-year growth.[118]

Figure 6: Sheep in the United Kingdom, 1990-2015



115 It should be noted that Scottish suckler beef is not efficient in terms of cost of production, but does make use of land which would not be useful for other agricultural production.

116 AHDB (2018), 'UK Sheepmeat trade', 17 April 2018. Available at: http://beefandlamb.ahdb.org.uk/wp-content/uploads/2018/04/UK-sheep-meat-trade-170418.xlsx

117 AHDB (2016), 'MeatStats 3: UK Balance Sheet'. Available at: http://beefandlamb.ahdb.org.uk/wp/wp-content/uploads/2016/07/MeatStats-3-UK-Balance-Sheet-190716.pdf

118 AHDB (2018), 'GB household beef and lamb purchases', 25 February 2018. Available at: http://beefandlamb.ahdb.org.uk

The UK is the EU's largest producer of lamb. In 2017, UK farmers produced 297.2 thousand tonnes of lamb meat,[119] of which 11.9 thousand tonnes was exported. A further 12.1 thousand tonnes of lamb meat was imported.[120] In 2017, over 84 thousand tons of mutton and lamb were exported from the United Kingdom to countries within the European Union.[121]

Lamb exports to both European and non-EU countries performed well in 2017, with total volumes up 14 per cent and valued at more than £384 million. Non-EU volumes have grown to 5,400 tonnes – up two thirds on the previous year.[122]

This reflects developments in the UK, the only major sheepmeat producing country to record a decline, with production down 4% (-8,900 tonnes) year-on-year between January and October. The UK accounts for around 40% of EU-28 production of sheepmeat.[123]

The UK is therefore largely self-sufficient in lamb (96%). UK exports of lamb go primarily to other EU countries (France, Germany, Republic of Ireland, Belgium, etc.), while UK imports are dominated by non-EU countries (90% come from New Zealand and Australia). In the WTO rectification process, the majority of the EU lamb quota from countries like New Zealand and Australia would be covered by the UK quota (which, at present, uses roughly 51.5% of the EU TRQ as a whole). Increasing access for lamb from the southern hemisphere fits within an overall agricultural trade strategy which works around the seasonality of certain products to maintain low, steady prices.

119 AHDB (2018), 'UK-Slaughterings', 19 April 2018. Available at: http://beefandlamb.ahdb.org.uk/wp-content/uploads/2018/04/UK-Slaughterings-190418.xls

120 AHDB (2018), 'UK Sheepmeat trade', 17 April 2018. Available at: http://beefandlamb.ahdb.org.uk/wp-content/uploads/2018/04/UK-sheep-meat-trade-170418.xlsx

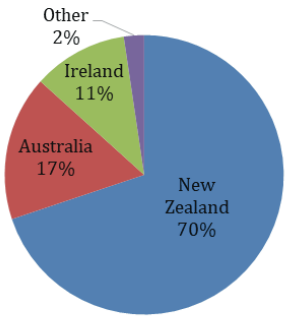
121 Statista (2018), 'Lamb Export Volumes'. Available at: https://www.statista.com/statistics/298104/eu-and-non-eu-export-volume-of-lamb-from-the-united-kingdom-uk/

122 AHDB (2018), 'Strong year for UK meat exports'. Available at: http://beefandlamb.ahdb.org.uk/strong-year-uk-meat-exports/

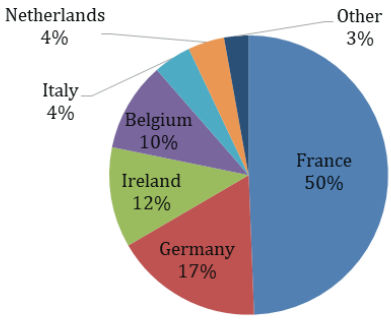
123 AHDB (2019), 'Falling UK Sheepmeat Production Limiting EU Total Last Year' Available at: http://beefandlamb.ahdb.org.uk/market-intelligence-news/falling-uk-sheep-meat-production-limiting-eu-total-last-year/

Figure 7: UK Exports and Imports of Lamb and Mutton, 2017 (volume)

Imports



Exports



The table overleaf shows the import quotas for sheepmeat for imports into the EU and applicable tariffs. As with beef products, there are further quotas allowed under EU regulations than those specified in the WTO certified schedule.

Table 4: EU Sheepmeat quotas and import duties – WTO certified schedule[124]

Commodity	Quota (WTO certified schedule) (tonnes)	Import duty MFN	Within-quota import duty	Origin
Sheepmeat	23,000	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg	0%	Argentina
	18,786	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg	0%	Australia
	850	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg	0%	Bosnia and Herzegovina
	3,000	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg	0%	Chile
	1,750 Live animals: 215	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg Live animals: EUR 80.5/100 kg	0% Live animals: 10%	Former Yugoslav Republic of Macedonia
	100	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg	0%	Greenland
	600	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg	0%	Iceland
	227,854	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg	0%	New Zealand
	5,800	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg	0%	Uruguay
	200 Live animals: 196	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg Live animals: EUR 80.5/100 kg	0% Live animals: 10%	Other

124 WTO (2016), 'Certification of Modifications and Rectifications to Schedule CLXXIII – European Union', 1 December 2016. This also includes quotas for countries such as Bulgaria, whose accession is not yet reflected in the latest certified WTO schedule.

Table 5: EU Sheepmeat quotas and import duties – EU regulation[125]

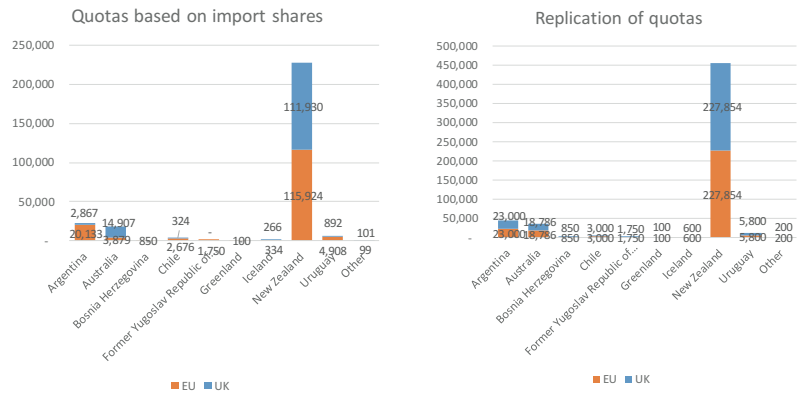
Commodity	Quota (EU regulation) (tonnes)	Import duty MFN	Within-quota import duty	Origin
Sheepmeat	23,000	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg	0%	Argentina
	19,186	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg	0%	Australia
	228,254	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg	0%	New Zealand
	5,800	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg	0%	Uruguay
	7,600	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg	0%	Chile
	300	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg	0%	Norway
	100	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg	0%	Greenland
	20	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg	0%	Faeroes
	200	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg	0%	Turkey
	200	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg	0%	Other
	1,850	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg	0%	Iceland
	200 Live animals: 92	12.8% + EUR 90.20/100 kg – 12.8% + EUR 311.80/100 kg Live animals: EUR 80.5/100 kg	0% Live animals: 10%	Erga omnes

125 European Parliament (2011), 'EU Regulation 1354/2011'. Available at: http://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:32011R1354

The figures below illustrate the potential UK quotas for sheepmeat based on the options of using import shares and replication. The allocation based on import shares would vary by country. The UK would have a larger share of the quota for countries such as Australia and New Zealand, which have nearly 80% and 50% respectively of exports going to the UK compared to the rest of the EU. For other countries, such as Chile and Argentina, the UK accounts for much lower shares of exports.

It should be noted that many countries benefiting from the specific TRQs do not always fill their quotas. For example, the fill rate for Argentina was less than 5% in 2016.[126] Therefore, the quotas would be well above the actual volumes of imports. Similarly, while New Zealand remains the dominant importer to the EU, for the last few years it has not completely filled its quota of 227,854 tonnes. There are several possible reasons for this: frequent drought conditions and spring storms which resulted in the death of a number of ewes and lambs; an increase in UK production which put pressure on prices; a smaller lamb crop, which has fallen by 1.8m head since 2015; and also a shift in focus to dairy.[127]

Figure 8: Potential import quotas of Sheepmeat into the EU and UK (tonnes)[128]



126 EC Communication and Information Resource Centre for Administrations, Businesses and Citizens.

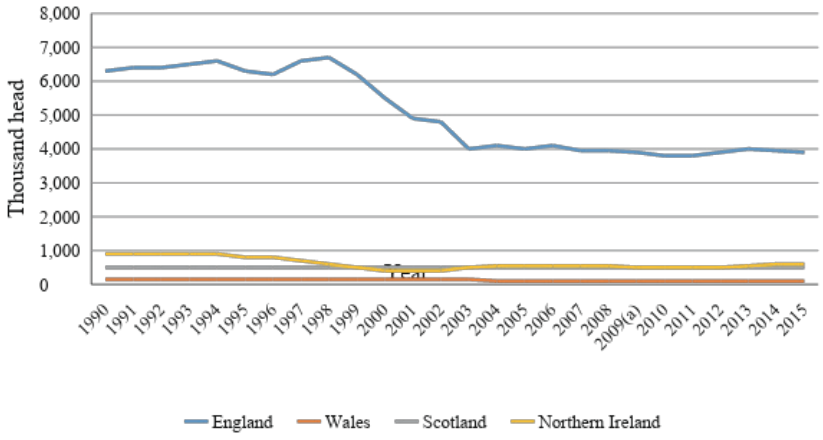
127 Agriland (2016), 'New Zealand lamb exports set to fall by 6.3% in 2016'. Available at: http://www.agriland.ie/farming-news/new-zealand-lamb-exports-set-fall-6-3-2016-outlook-report/#

128 Analysis using Eurostat data. Excludes live animals.

Pork

While pork is the second most popular meat among UK consumers (in terms of volume), they eat little pork compared to their European neighbours. On average, a UK consumer consumes 25.6 kg of pig meat per annum, compared to 32.3 kg in France and 51.8 kg in Austria.[129] During the one-year period ending on 12 August 2018, UK consumers spent 2.1% more on pork products than the preceding year (£745.1m). Consumption by volume however was down by 1.5%, to 157,344 tonnes. Annualised market penetration remains high at 71.1%. While several fresh and frozen pork products (pork belly, loin roasting, shoulder roasting joint) are down for the year, mince, ribs, marinades and leg roasting joints are up significantly (26.7%, 6.9%, 7.9% and 14.5% respectively). Other pork products (e.g. bacon, sausages and ready meals) are slightly up, with only fresh sausage rolls being down (-4.4%).[130]

Figure 9: Pigs in the United Kingdom, 1990 - 2015



Clean pig slaughtering was down in 2017 at 8,755 thousand heads.[131] In 2017, the UK produced 903,000 tonnes of pork, of which 263,000 tonnes were exported. The UK imported a further 1,083,000 tonnes of pork, for

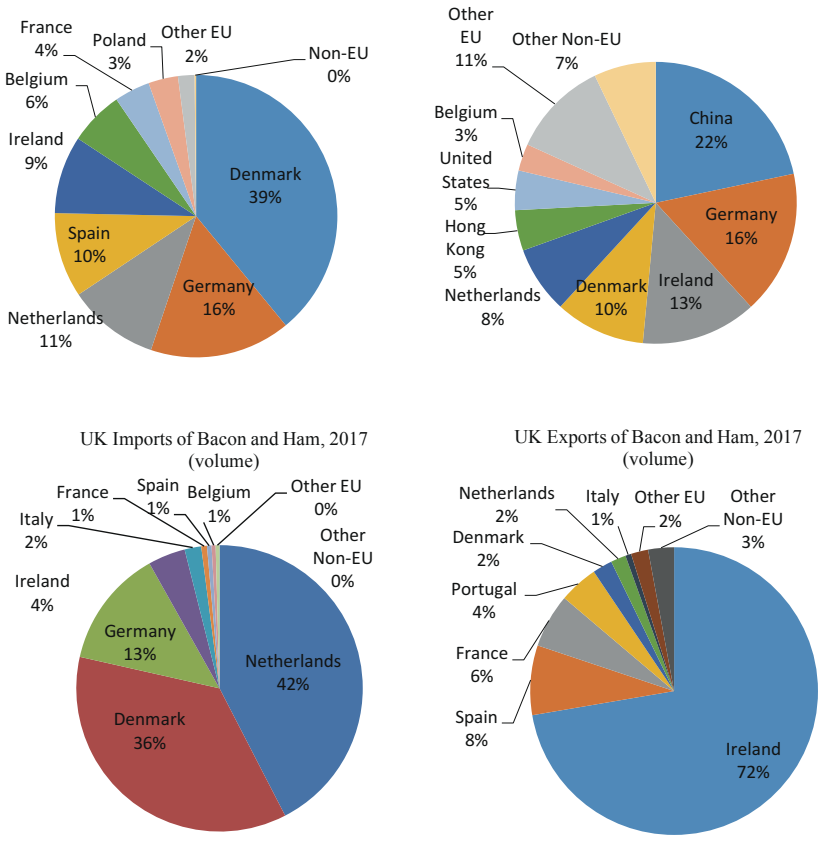
129 AHDB (2017), 'EU per capita consumption'. Available at: https://pork.ahdb.org.uk/prices-stats/consumption/eu-per-capita-consumption/

130 AHDB (2018), 'Retail Consumption', AHDB Pork, 12 August 2018. Available at: https://pork.ahdb.org.uk/media/275949/pork-consumption-12-august-2018.xls

131 AHDB (2019), 'Annual Clean Pig', AHDB Pork, 2019. Available at: https://pork.ahdb.org.uk/prices-stats/production/gb-slaughterings/annual-clean-pig/

a total consumption of 1,722,000 tonnes.[132] Roughly 47% of imported pigmeat is fresh/frozen, with another 30% coming from processed pork (including sausages) and the rest coming from bacon/ham. Exports are dominated by fresh/frozen meat, with only 9% going to bacon/ham and processed pork.[133]

Figure 10: UK imports and Exports of Pork, Bacon and Ham, 2017 (volume)



132 AHDB (2019), 'UK Pig Meat Supplies Forecast', AHDB Pork, 2019. Available at: https://pork.ahdb.org.uk/prices-stats/production/uk-pig-meat-supplies-forecast/

133 AHDB (2018), 'Pig Pocketbook – 2018', AHDB Pork, 2018.Available at: https://pork.ahdb.org.uk/media/275385/pig-pocketbook-2018.pdf

Denmark, Germany and the Netherlands dominate the UK import market for pork while Republic of Ireland and Spain dominate in bacon/ham products. Pork and bacon/ham exports are a smaller market; while bacon/ham exports are again dominated by EU member states, pork exports are more diversified and include China, the US, Hong Kong among other nations.

As shown in the table below, EU allowances for pigmeat imports are relatively low. The MFN rate applicable outside of the quota is also relatively low compared to other livestock products (such as beef). Interestingly, the fill rate in 2015/16 across the EU was relatively low with less than 5% allocated on an *erga omnes* basis.[134] This could be because of the quota administration process used.

Table 6: EU Pigmeat quotas and import duties – WTO certified schedule[135]

Commodity	Quota (WTO certified schedule) (tonnes)	Import duty MFN	Within-quota import duty	Origin
Pigmeat	4,624	EUR 46.70/100 kg – EUR 156.80/100kg	EUR – 0% 78.40/100 kg	Canada
	77,030	EUR 46.70/100 kg – EUR 156.80/100kg	EUR – 0% 78.40/100 kg	Erga omnes
	4,722	EUR 46.70/100 kg – EUR 156.80/100kg	EUR – 0% 78.40/100 kg	USA

134 Circa (2016), 'Pigmeat allocations: 2015-2016'. Available at: https://circabc.europa.eu/sd/a/7cce7943-9a2e-403a-9511-903412036940/PIGMEAT%20allocations%202015-2016%20(Circa).pdf

135 WTO (2016), 'Certification of Modifications and Rectifications to Schedule CLXXIII – European Union', 1 December 2016. This also includes quotas for countries such as Bulgaria, whose accession is not yet reflected in the latest certified WTO schedule.

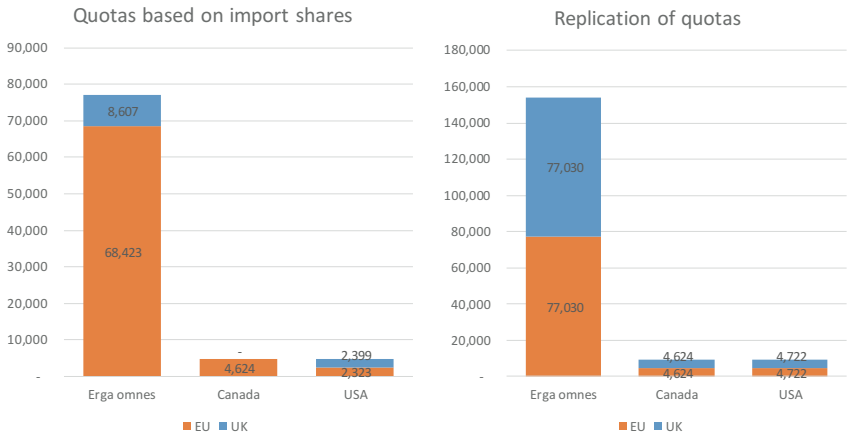
Table 7: EU Pigmeat quotas and import duties – EU Regulation[136]

Commodity	Quota (EU regulation) (tonnes)	Import duty MFN	Within-quota import duty	Origin
Pigmeat	4,624	EUR 46.70/100 kg – EUR 156.80/100kg	EUR – 0% 78.40/100 kg	Canada
	77,030	EUR 46.70/100 kg – EUR 156.80/100kg	EUR – 0% 78.40/100 kg	Erga omnes
	4,922	EUR 46.70/100 kg – EUR 156.80/100kg	EUR – 0% 78.40/100 kg	USA
	40,000	EUR 46.70/100 kg – EUR 156.80/100kg	0%	Ukraine

The figures below illustrate the potential UK quotas under the two options. Based on overall imports of pigmeat products, the UK share of US exports to the EU is just over 50%, and so the quota for the US would be relatively higher than average. Over the last three years, the UK did not import pigmeat products from Canada, and accordingly there may not necessarily be a UK quota specific to Canada. However, as noted earlier, the fill rates for the pigmeat quota was low in 2015/16, and so the quotas may not be meaningful without addressing any barriers to their utilisation.

136 European Parliament (2009), 'EU Regulation 442/2009'. Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32009R0442; and European Parliament (2015), 'EU Regulation 2015/2076'. Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015R2076

Figure 11: Potential import quotas of Pigmeat into the EU and UK (tonnes)[137]



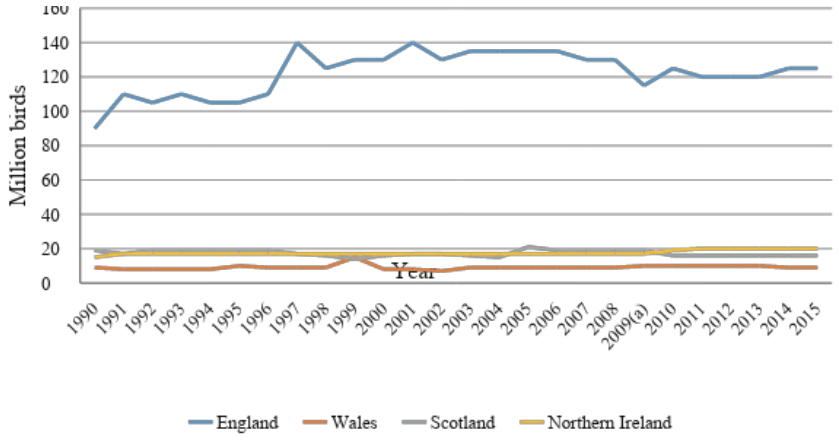
Poultry

The UK is both a major producer and consumer of poultry meat products. The average UK consumer eats roughly 36 kg of poultry meat a year, and the sector directly employs over 37,000 people.[138,139] Chicken is by far the most popular meat among UK consumers and makes up around half of all meat sold in the UK. In 2015, UK consumers spent £2,806.6m on 618.5 thousand tonnes of poultry meat. The majority of that spending went towards chicken pieces (£1,727.5m), and then to whole chickens (£673.3m) and turkey (£307.0m).[140] Retail volume and value of sales in frozen sliced cooked chicken, frozen legs and frozen breasts was down in 2016, while fresh and frozen rolls/roasts and frozen whole chickens experienced

137 Analysis using Eurostat data.
138 The British Poultry Council (2018). Available at: https://www.britishpoultry.org.uk/about-bpc/
139 AHDB (2018), 'Poultry Pocketbook – 2018'. Available at: https://pork.ahdb.org.uk/media/275384/poultry-pocketbook-2018.pdf
140 AHDB (2016), 'Meat Stats 5: UK Household Purchases'. Available at: http://beefandlamb.ahdb.org.uk/wp/wp-content/uploads/2016/07/MeatStats-5-UK-Household-Purchases-190716.pdf

growth.[141] Overall, sales volume increased steadily through to the end of 2017.[142]

Figure 12: Poultry in the UK, 1990 - 2015



The UK is the second-largest producer of poultry meat in the EU, slaughtering some 17.5 million birds per week. In 2016, UK farms produced 1,471 thousand tonnes of poultry meat, of which 338.2 thousand tonnes was exported. A further 907.8 thousand tonnes was imported for a total consumption of 2,040.6 thousand tonnes.[143] The nature of poultry farming (a short incubation period of 21 days for broiler chicks, relatively quick maturity, etc.) means that the volume of poultry meat produced is huge and lends itself to industrial-scale production. There are around 2,500 UK farms producing around 875 million chickens, 17 million turkeys, 16 million ducks and 250,000 geese per annum.[144] Broilers make up the vast majority of the chickens produced. As with other livestock products, most chickens are raised and slaughtered in England.

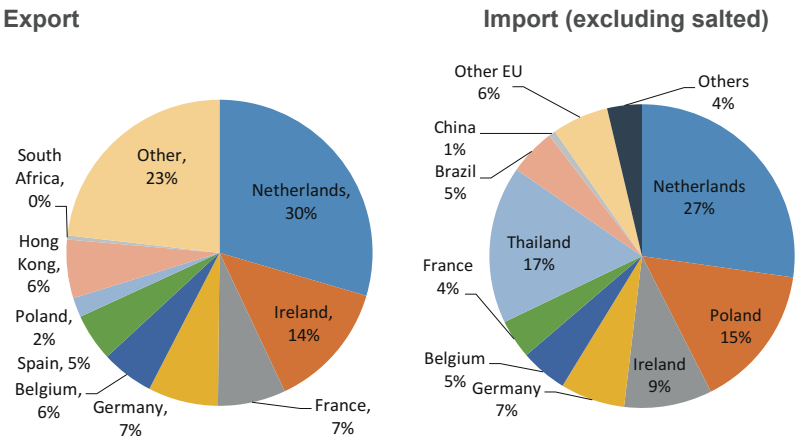
141 AHDB (2017), 'Poultry Pocketbook – 2017'. Available at: http://pork.ahdb.org.uk/media/273704/poultry-pocketbook-2017.pdf

142 AHDB (2018), 'Poultry Pocketbook – 2018'. Available at: https://pork.ahdb.org.uk/media/275384/poultry-pocketbook-2018.pdf

143 AHDB (2017), 'Poultry Pocketbook – 2017'. Available at: http://pork.ahdb.org.uk/media/273704/poultry-pocketbook-2017.pdf

144 British Poultry (2018), 'How the Sector Works'. Available at: http://www.britishpoultry.org.uk/how-the-sector-works/

Figure 13: UK Exports and Imports of Poultry, 2017 (volume)



Unlike other livestock products, a significant portion of UK exports in poultry meat go to non-EU countries (largely Hong Kong). As poultry meat consumption is expected to rise 20% to 22% in Asia and Africa over the next six years, the UK is well-positioned to increase its share of exports to these markets to meet rising demand.[145] Poultry meat imports are dominated by the EU, with recent market share expansion by Poland and the Republic of Ireland.[146] The high share taken by the Netherlands in both imports and exports may be inflated due to the 'Rotterdam effect' however.

145 Gary Ford (2015), 'State of the Poultry Industry', AHDB Outlook Conference, 11 February 2015. Available at: http://pork.ahdb.org.uk/media/72845/outlook-2015-gary-ford-state-of-the-poultry-industry.pdf

146 AHDB (2015), 'The State of the UK Poultry Industry'. Available at: http://beefandlamb.ahdb.org.uk/market-intelligence-news/the-state-of-the-uk-poultry-industry/

The table below sets out the poultry quotas and applicable tariffs. There is a wide range of applicable tariffs across different product categories.

Table 8: EU Poultry quotas and import duties – WTO certified schedule[147]

Commodity	Quota (WTO certified schedule) (tonnes)	Import duty MFN	Within-quota import duty	Origin
Poultry	344,916	EUR 26.20/100 kg – 12.8% + EUR 102.40/100 kg	0% – EUR 79.50/100 kg	Brazil
	38,310	EUR 26.20/100 kg – 12.8% + EUR 102.40/100 kg	0% – EUR 79.50/100 kg	Erga omnes
	23,867	EUR 26.20/100 kg – 12.8% + EUR 102.40/100 kg	0% – EUR 79.50/100 kg	Other
	252,643	EUR 26.20/100 kg – 12.8% + EUR 102.40/100 kg	0% – EUR 79.50/100 kg	Thailand
	16,665	EUR 26.20/100 kg – 12.8% + EUR 102.40/100 kg	0% – EUR 79.50/100 kg	USA

147 WTO (2016), 'Certification of Modifications and Rectifications to Schedule CLXXIII – European Union', 1 December 2016. This also includes quotas for countries such as Bulgaria, whose accession is not yet reflected in the latest certified WTO schedule.

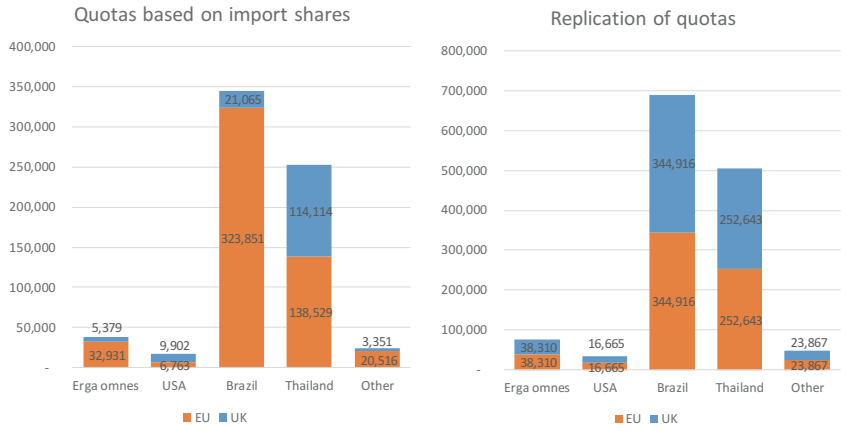
Table 9: EU Poultry quotas and import duties – EU regulation[148]

Commodity	Quota (EU regulation) (tonnes)	Import duty MFN	Within-quota import duty	Origin
Poultry	437,816	EUR 26.20/100 kg – 12.8% + EUR 102.40/100 kg	0% – EUR 79.50/100 kg	Brazil
	288,553	EUR 26.20/100 kg – 12.8% + EUR 102.40/100 kg	0% – EUR 79.50/100 kg	Thailand
	31,970	EUR 26.20/100 kg – 12.8% + EUR 102.40/100 kg	0% – EUR 79.50/100 kg	Other
	21,790	EUR 26.20/100 kg – 12.8% + EUR 102.40/100 kg	0% – EUR 79.50/100 kg	Erga omnes
	21,345	EUR 26.20/100 kg – 12.8% + EUR 102.40/100 kg	0% – EUR 79.50/100 kg	USA
	4,560	EUR 26.20/100 kg – 12.8% + EUR 102.40/100 kg	0% – EUR 79.50/100 kg	Israel
	36,000	EUR 26.20/100 kg – 12.8% + EUR 102.40/100 kg	0% – EUR 79.50/100 kg	Ukraine

148 Circa (2016), 'Import Quota: Poultrymeat and Eggs Sectors'. Available at: https://circabc.europa.eu/sd/a/da0aa62e-5452-425a-815e-73959dfcad5e/POULTRYMEAT%20AND%20EGGS%20allocations%202015-2016%20(Circa).pdf

The figures below illustrate the potential quotas that the UK may apply for poultry. While Brazil has the largest quota access to the EU, the UK share of Brazilian exports is relatively small and so the UK quota under the basis of import shares would be relatively small. The UK accounts for a larger share of Thailand's exports to the EU and so would have a larger share of the quotas.

Figure 14: Potential import quotas of Poultry into the EU and UK (tonnes)[149]



Since the UK is a producer of poultry meat, we advise retaining the CET and quota as the initial WTO schedule; however, the government should also offer to major suppliers/prosperity zone countries that we have the ability to tariffication the quota and systematically reduce it in a free trade agreement ('FTA') context.

Eggs

The UK produced 10,782 million eggs between December 2016 and December 2017. Of those, 147 million eggs were exported and 1,995 million were imported, with a total consumption of 12,930 million eggs (up 3% on the previous period). The average Briton eats 196 eggs per annum. Around half of all eggs produced are used for retail as shell eggs, with another quarter going to egg products and another quarter used by foodservice as shell eggs. For the 52-week period ending on 31 December 2017, laying cage eggs comprised 48% of production and free-range eggs

149 Analysis using Eurostat data.

comprised 50.5% of production, with the remaining 1.5% going to barn eggs.[150] In 2016, the volume of all types of egg production grew, while the value fell for non-free-range, free-range non-organic, and barn eggs.[151] As with poultry products, the EU import quota allowed is a fraction of demand.

The table below shows import quotas and tariffs for eggs for the EU. The fill rate for the quota was less than 5% in 2015/16.[152]

Table 10: EU Eggs quotas and import duties – WTO certified schedule[153]

Commodity	Quota (WTO certified schedule) (tonnes)	Import duty MFN	Within-quota import duty	Origin
Eggs	157,500	EUR 16.70/100 kg – EUR 142.30/100kg	EUR 8.30/100 kg – EUR 71.10/100 kg	Erga omnes

Dairy

UK dairy production accounts for 73,000 jobs across production and processing, with total output of 14.49 million tonnes (14 billion litres) at a value of £8.8bn.[154] The industry is important to the UK's domestic agricultural production, and is characterised by the variable nature of dairy products (commonly divided into liquid milk, whole milk powder ('WMP'), skimmed milk powder ('SMP'), cheese and butter) with relative shelf stability, value and ease of transportation, and public interventions into domestic and global markets. Outside of the CAP, the UK's relatively efficient production of milk and milk products should produce domestic sectoral growth as the global market for these products expands.

150 Egg Info (2018), 'Industry Data'. Available at: https://www.egginfo.co.uk/egg-facts-and-figures/industry-information/data
151 AHDB (2017), 'Poultry Pocketbook – 2017'. Available at: https://pork.ahdb.org.uk/media/273704/poultry-pocketbook-2017.pdf
152 Circa (2016), 'Poultrymeat and Eggs Allocations: 2015-2016'. Available at: https://circabc.europa.eu/sd/a/da0aa62e-5452-425a-815e-73959dfcad5e/POULTRYMEAT%20AND%20EGGS%20allocations%202015-2016%20(Circa).pdf
153 WTO (2016), 'Certification of Modifications and Rectifications to Schedule CLXXIII – European Union', 1 December 2016. This also includes quotas for countries such as Bulgaria, whose accession is not yet reflected in the latest certified WTO schedule.
154 Dairy UK (2017), 'The White Paper'. Available at: http://www.dairyuk.org/images/documents/publications/THE-WHITE-PAPER-2017.pdf

Dairy production remains an important component of UK agricultural production, at nearly 18% of total agricultural output and £4.6bn in market prices.[155] The average UK cow produced 7,942 litres of milk in 2015/16, up from 6,631 litres of milk in 2003/4.[156] The UK's milk usage trends more heavily on liquid milk and cheese than global averages – 48.2% of milk goes to producing liquid milk, 26% to cheese, 12.7% to milk powders, and 1.9% to butter.[157] Global use of milk for dairy products is as follows: fresh milk and other, 42.9%; cheese, 25.2%; butter and ghee, 23.1%; SMP, 5.1%; WMP, 3.7%.[158] UK consumers also drink and eat more dairy products than average global and EU consumers.

Table 11 : UK milk utilisation, volume (million litres)[159]

	2004	2016	2014/15
Total milk available (domestic production and imports)	13,958	14,205	14,796
Milk used for liquid	6,681	6,920	7,053
Cheese	3,485	3,654	3,808
Condensed milk and powders	2,042	1,546	1,862
Exports	434	725	861
Yogurt	237	269	273
Cream	311	291	302
Butter	256	306	271
Other	400	424	455
Stock change and wastage	108	32	92

155 House of Commons (2016), 'UK Dairy Industry Statistics', House of Commons Briefing Paper Number 2721, 20 January 2016.
156 AHDB (2018), 'Average Milk Yield', AHDB Dairy, 2018. Available at: https://dairy.ahdb.org.uk/market-information/farming-data/milk-yield/average-milk-yield/#.WucbGZch200
157 AHDB (2015), 'Dairy Statistics: An Insider's Guide 2015', AHDB Dairy, 2015.
158 United Nations (2018), 'Milk Facts', Food and Agriculture Organisation of the United Nations, 2018. Available at: http://www.fao.org/resources/infographics/infographics-details/en/c/273893/
159 AHDB (2015), 'Dairy Statistics: An Insider's Guide 2015', AHDB Dairy, 2015, p 44.

According to the Agriculture and Horticulture Development Board (AHDB), the major costs to UK dairy herds are replacement, feed and forage, labour and power/machinery. Feed and forage represent 30%–40% of costs and herd replacement represents 7%–13% of costs.[160] Within the UK, dairy farming is primarily an English activity, both in terms of the number of farms and the number of cows within each of the four nations.[161]

Table 12: Average Dairy Herd Size in UK, 2004 - 2014[162]

	04	05	06	07	08	09	10	11	12	13	14
England	105	104	111	117	119	121	125	126	127	128	136
Wales	88	91	96	102	105	105	112	115	117	118	127
Scotland	124	129	124	127	129	130	133	138	181	125	192
Northern Ireland	69	71	84	91	97	96	101	103	107	104	111
UK Average	97	98	106	112	115	116	121	123	126	126	133

While the UK is behind Germany and France in terms of EU milk production, its cost of production is lower than many other countries, at 27 cents per kg,[163,164] compared to 44.94 cents per kg for Germany (without the deduction of subsidies, otherwise 49.63 cents per kg),[165] 43.32 cents per kg for Denmark (without the deduction of subsidies, otherwise 38.99 cents per kg) and 50.47 cents per kg for Belgium (without the deduction of subsidies, otherwise 45.96 cents per kg).[166]

160 AHDB (2015), 'Dairy Statistics: An Insider's Guide 2015', AHDB Dairy, 2015, p 21.
161 AHDB (2015), 'Dairy Statistics: An Insider's Guide 2015', AHDB Dairy, 2015, p 16.
162 House of Commons (2016), 'UK Dairy Industry Statistics', House of Commons Briefing Paper Number 2721, 20 January 2016.
163 House of Commons (2016), 'UK Dairy Industry Statistics', House of Commons Briefing Paper Number 2721, 20 January 2016, p 3.
164 Note: Based on a conversion rate of 1.03 kg per litre and 1 GBP to 1.16692 EUR
165 European Milk Board (2018), 'Milk Production Costs'. Available at: http://www.europeanmilkboard.org/special-content/milk-production-costs.html [acc. 09/04/2018]
166 Ibid.

Table 13: Comparison of UK dairy production to global averages[167]

	UK	Global
Production	14.49m tonnes	830m tonnes
Average consumption per person	240.95 kg per person per year	114 kg per person per year
Average dairy farm size	133 milk animals	2.9 milk animals
Average yield per milk animal	8.19 tonnes	2.1 tonnes
Milk price level	31 USD/100 kg milk (2015)	28 USD/100 kg milk

Global milk production has risen by more than 50% since the early 1980s.[168] Since 1992, milk production has decreased in the UK by 6% (14.8m tonnes in 1992 to 13.9m tonnes in 2012). During this same period, milk production increased dramatically in the US (+33%, from 68.4m tonnes to 90.0m tonnes) and New Zealand (+149%, 8.1m tonnes to 20.1m tonnes). Developing world production has also skyrocketed (+122% in India and +616% in China).[169] Dairy milk makes up the bulk of global production at 85%, with buffalo milk comprising 11%, goat milk at 2%, sheep milk at 1%, and camel milk at 0.4%.[170] The largest milk producers in the world are India, the US, China, Pakistan and Brazil.[171, 172] The largest importers in the global market are China, Russia, Mexico, Saudi Arabia, Malaysia and the UAE, respectively.[173] Global milk prices peaked in 2013, especially

167 IFCN (2018), 'Long Term Dairy Outlook'. Available at: http://www.ifcndairy.org/media/downloads/20160928_IFCN-Article_Long-term-Dairy-Outlook.pdf [acc. 19/04/2018]

168 United Nations (2018), 'Milk Production', Food and Agriculture Organisation of the United Nations, 2018. Available at: http://www.fao.org/agriculture/dairy-gateway/milk-production/en/#.WA3-2eArJhE

169 House of Commons (2016), 'UK Dairy Industry Statistics', House of Commons Briefing Paper Number 2721, 20 January 2016, p 7.

170 United Nations (2018), 'Milk Facts', Food and Agriculture Organisation of the United Nations, 2018. Available at: http://www.fao.org/resources/infographics/infographics-details/en/c/273893/

171 United Nations (2018), 'Milk Production', Food and Agriculture Organisation of the United Nations', 2018. Available at: http://www.fao.org/agriculture/dairy-gateway/milk-production/en/#.WA3-2eArJhE

172 It is worth noting that most of these major producers are also heavy subsidisers, and that under the ACMD mechanism which we have proposed, UK dairy farmers would be able to apply for injunctive relief coming from the US market (for example) as long as the US maintains minimum price supports.

173 United Nations (2015), 'Milk and Milk Products: Price and Trade Update', Food and Agriculture Organisation of the United Nations, 2015. Available at: http://www.fao.org/fileadmin/templates/est/COMM_MARKETS_MONITORING/Dairy/Documents/Milk_and_Milk_Products_Dec_2015.pdf

Global milk prices peaked in 2013, especially for milk powder products. Declining domestic demand in China and a Russian import ban on certain dairy products have significantly driven down prices since that time. Russian imports on cheese alone are down 62% since 2013. Chinese demand for WMP alone has fallen 34% since 2014. This coincided with increased production among key global players, including Australia (+4%), New Zealand (+5%), the US (+1%) and the EU, which saw a 2% increase due in part to the removal of quotas and in part to its public intervention practices, which act as a price floor for what may be otherwise untenable levels of dairy product.[174]

WMP, SMP, butter and cheese are increasing at levels roughly analogous to total milk production, although milk powders enjoy the strongest growth (particularly in the developing world – this can be partially attributed to the extremely long shelf life of milk powder products). Recent growth in SMP production has come primarily from the EU, which may be attributable to the high levels of secondary subsidisation available from the milk package intervention scheme.[175]

As noted by the UNFAO, 'Prices in Eastern Europe, Latin America, Oceania and indeed in most developing countries, closely follow world market levels. In contrast, milk prices in the US and countries of the EU, which have tariffs ranging from 50% to 120%, have been historically 50% to 150% above the world market price. Other countries that protect their dairy markets are Canada, Japan, Republic of Korea, Norway and Switzerland, where milk prices exceed US$50/100 kg. Nevertheless, milk prices vary from country to country, determined by local milk supply and demand and degrees of integration into the world dairy market. The lowest milk prices (less than US$20/100 kg) were observed in Argentina, Belarus, Indonesia, Pakistan, Uganda and Uruguay.'[176] Global milk prices increased significantly in 2007, including a quadrupling of the global price in butter (from $1,000/tonne to $4,000/tonne), although milk prices generally remain lower in the developing world.[177]

174 OECD data.
175 Ibid.
176 United Nations (2009), 'Global Dairy Sector: Status and Trends', Food and Agriculture Organisation of the United Nations, 2009, p 17. Available at: http://www.fao.org/docrep/012/i1522e/i1522e02.pdf
177 Ibid, p 16.

UK dairy exports increased by 91% outside of the EU between 2009 and 2014, and increased intra-EU by 28%.[178] In 2014, the UK was a net exporter of milk and cream, but a net importer of cheese and butter.[179] In addition to the European public intervention measures described above, the EU maintains high tariffs and low import quotas for milk and milk products, thereby lessening competition for EU producers and increasing cost for EU consumers. It is important to note that in terms of trade in milk and milk products, liquid milk is infrequently traded as a commodity – instead, the bulk of trade in these products comes from milk derivatives (e.g. butter, cheese and milk powders). Only 3% of milk produced in the UK in 2014 was exported.[180]

The following table sets out the EU quotas and tariffs on dairy products. Under EU Regulations, there are further quotas for New Zealand, as well as Switzerland (cream and yoghurt), Iceland (butter and yoghurt), Norway (cheese) and Ukraine (milk and butter). It should be noted that MFN rates here are fairly high, with a kilo of imported butter having between one and two pounds of duty placed on it. Given that a 250g pat of butter might cost around £1.50, an extra 25 to 50 pence from tariffs alone is a significant barrier to imports from outside the customs union. Quotas here are also relatively low, for instance New Zealand, one of the world's leading dairy exporters, has a quota allowing it to meet only around 0.5% of UK demand for dairy at preferential import rates.

178 Dairy UK (2016), 'United Kingdom Exporting Dairy to the World', p 11. Available at: http://www.dairyuk.org/images/201602_United_Kingdom_Exporting_Dairy_to_the_World.pdf [acc. 19/04/2018]

179 House of Commons (2016), 'UK Dairy Industry Statistics', House of Commons Briefing Paper Number 2721, 20 January 2016, p 8.

180 Ibid,p6.

Table 14: EU Dairy quotas and import duties – WTO certified schedule[181]

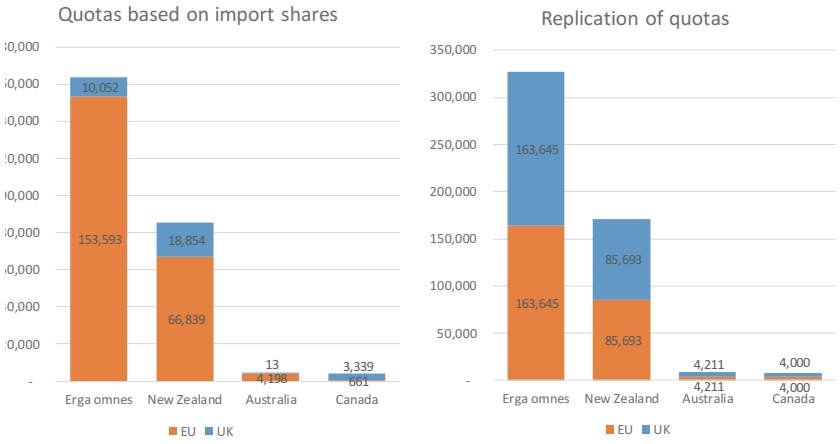
Commodity	Quota (WTO certified schedule) (tonnes)	Import duty MFN	Within-quota import duty	Origin
Dairy	4,211 (cheese)	EUR 118.80/100 kg – EUR 231.30/100 kg	EUR 13.50/100 kg – EUR 106.40/100 kg	Australia
	4,000 (cheese)	EUR 118.80/100 kg – EUR 231.30/100 kg	EUR 13.50/100 kg – EUR 106.40/100 kg	Canada
	163,645	EUR 118.80/100 kg – EUR 231.30/100 kg	EUR 13.50/100 kg – EUR 106.40/100 kg	Erga omnes
	85,693 (includes butter and cheese)	EUR 118.80/100 kg – EUR 231.30/100 kg	EUR 13.50/100 kg – EUR 106.40/100 kg	New Zealand

The figures below illustrate the potential UK quotas under the options of using average import shares and replication of EU quotas. While on average the UK share is less than 10% of total EU imports, it is particularly high for Canada (over 80%) and New Zealand (just over 20%). It should be noted that the allocation of imports under the quota on an *erga omnes* basis was less than 10% in 2015/16.[182] In particular, while New Zealand has a high quota for dairy products, the allocated quantity for import was less than 1% in 2015/16, suggesting that there are other barriers to trade.

181 WTO (2016), 'Certification of Modifications and Rectifications to Schedule CLXXIII – European Union', 1 December 2016. This also includes quotas for countries such as Bulgaria, whose accession is not yet reflected in the latest certified WTO schedule.

182 European Commission (2019), 'EU Preferential Import Quotas'. Available at: https://ec.europa.eu/agriculture/sites/agriculture/files/market-observatory/milk/pdf/preferential-import-quotas_en.pdf

Figure 15: Potential import quotas of Dairy into the EU and UK (tonnes)[183]



As part of its independent trade policy, the UK could offer increased access in the dairy sector, including potentially tarifficating the quota, and then lowering the tariff rate in the context of the FTA or CPTPP negotiations. The UK will have to ensure that it secures access to the major importing countries listed above.

Cereals

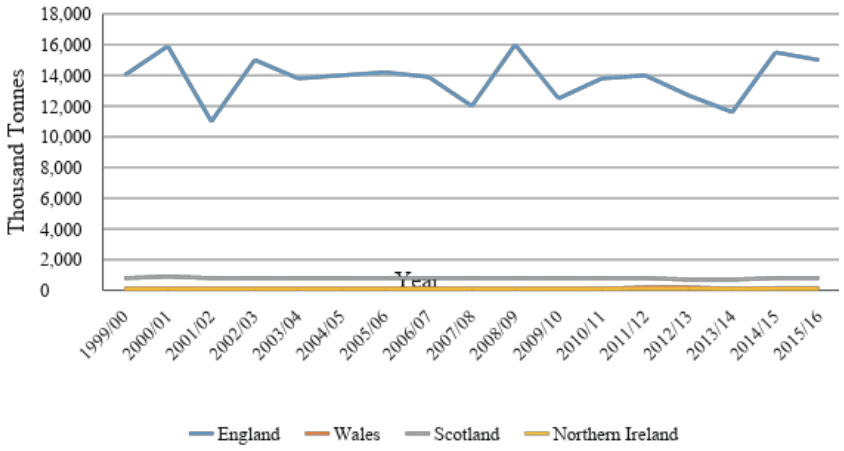
Unlike livestock and horticultural products, cereals produced in the UK are both primary and intermediate goods within a variety of industries, including bioethanol, alcohol, animal feed, and a variety of foodstuffs. This increases the number of factors that affect demand and price beyond what is usual for the agricultural sector more generally.

In the 2014/15 season, UK farms produced 16,450 thousand tonnes of wheat, of which 1,939 thousand tonnes was exported. A further 1,643 thousand tonnes was imported. Domestic consumption totalled 15,287 thousand tonnes, of which 7,820 thousand tonnes was used for human/ industrial purposes, 7,084 thousand tonnes for animal feed, and 293 thousand tonnes for seed.[184] UK wheat availability is forecast to fall this

183 Analysis using Eurostat data.
184 AHDB (2018), 'UK Supply & Demand Balance Sheets'. Available at: http://cereals-data.ahdb.org.uk/archive/supply.asp

year, however reduced demand for human and industrial usage is expected to lead to a slightly larger export surplus than in 2017/18.[185]

Figure 16: UK Wheat Production, 1999 – 2016



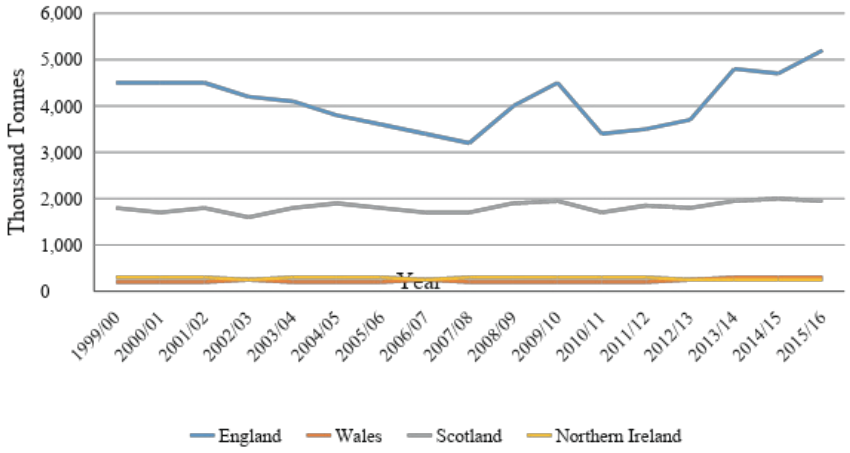
In the 2014/15 season, UK farms produced 6,911 thousand tonnes of barley, of which 1,495 thousand tonnes was exported. A further 126 thousand tonnes was imported. Domestic consumption totalled 5,464 thousand tonnes, of which 1,948 thousand tonnes was used for human/ industrial purposes, 3,319 thousand tonnes for animal feed, and 162 thousand tonnes for seed.[186] This year has shown decreased animal feed demand for barley, as well as a lower planted area and average yield. This expected to lead to a decreased surplus available for export.[187]

185 AHDB (2018), 'AHDB Cereals and Oilseeds Early UK Supply and Demmand Estimates: 2018/19'. Available at: https://cereals.ahdb.org.uk/media/1445091/AHDB-Early-Balance-Sheet-18-19.pdf

186 AHDB (2018), 'UK Supply & Demand Balance Sheets'. Available at: http://cereals-data.ahdb.org.uk/archive/supply.asp

187 (2018), 'AHDB Cereals and Oilseeds Early UK Supply and Demmand Estimates: 2018/19'. Available at: https://cereals.ahdb.org.uk/media/1445091/AHDB-Early-Balance-Sheet-18-19.pdf

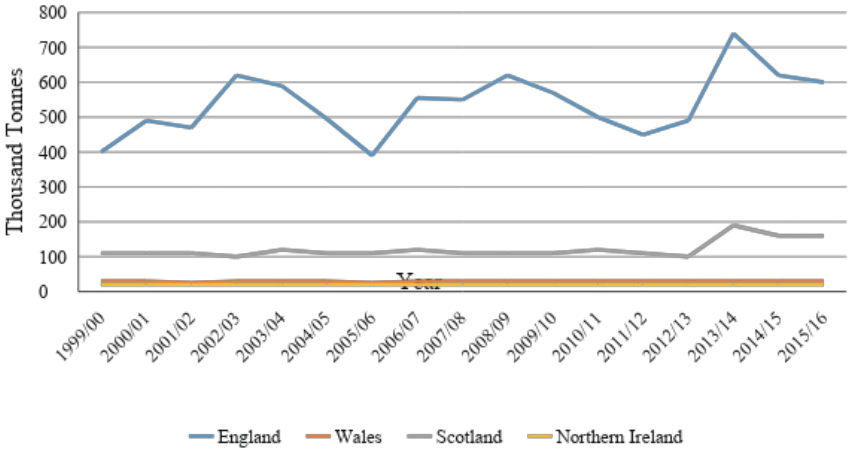
Figure 17: UK Barley Production, 1999 - 2016



In the 2014/15 season, UK farms produced 1,020,000 tonnes of oats, of which 77,000 tonnes was exported. A further 33,000 tonnes was imported. Domestic consumption totalled 838,000 tonnes, of which 490,000 tonnes was used for human/industrial purposes, 325,000 tonnes for animal feed, and 19,000 tonnes for seed.[188]

188 AHDB (2018), 'UK Supply & Demand Balance Sheets'. Available at: http://cereals-data.ahdb.org.uk/archive/supply.asp

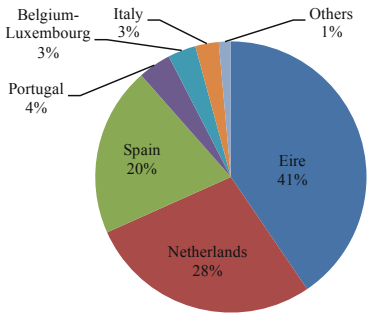
Figure 18: UK Oats Production, 1999 – 2016 (volume)



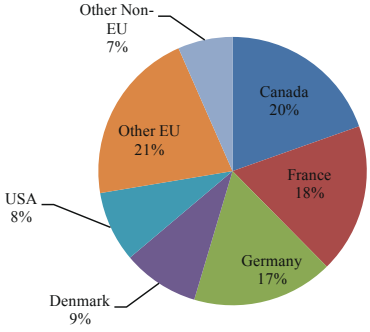
The UK is largely self-sufficient in wheat and is a net exporter. The majority of UK exports go to EU countries, however this can vary a lot by year with high proportions in recent years also going to Asia and North Africa. Imports are fairly diverse, with Canada as the second-largest source of wheat.

Figure 19: UK Exports and Imports of Wheat, 2018 (volume)

Exports



Imports



The table below sets out the EU quotas and tariffs on cereals.

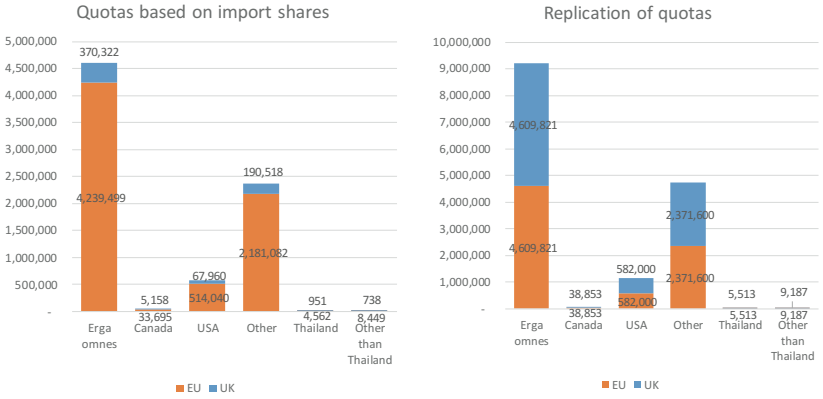
Table 15: EU Cereals quotas and import duties – WTO certified schedule[189]

Commodity	Quota (WTO certified schedule) (tonnes)	Import duty MFN	Within-quota import duty	Origin
Cereals	38,853	EUR 89.00/1,000 kg – EUR 416.00/1,000 kg	0% – 16%	Canada
	4,609,821	EUR 89.00/1,000 kg – EUR 416.00/1,000 kg	0% – 16%	Erga omnes
	2,371,600	EUR 89.00/1,000 kg – EUR 416.00/1,000 kg	0% – 16%	Countries other than those specified
	9,187	EUR 89.00/1,000 kg – EUR 416.00/1,000 kg	0% – 16%	Countries other than Thailand
	5,513	EUR 89.00/1,000 kg – EUR 416.00/1,000 kg	0% – 16%	Thailand
	582,000	EUR 89.00/1,000 kg – EUR 416.00/1,000 kg	0% – 16%	USA

The figures below illustrate the potential UK quotas for cereals. It is worth noting that the EU maintains relatively high tariffs and low quotas (compared to other cereals products) on rice, a product which the UK does not grow but heavily consumes, with a sizeable refining sector. The same is true for maize, which is used predominantly in animal feed. For rice and maize, the UK could unilaterally drop tariffs and quotas completely. This would be particularly important for potential trade agreements with India (rice) and US, China and Brazil (maize).

189 WTO (2016), 'Certification of Modifications and Rectifications to Schedule CLXXIII – European Union', 1 December 2016. This also includes quotas for countries such as Bulgaria, whose accession is not yet reflected in the latest certified WTO schedule.

Figure 20: Potential import quotas of Cereals into the EU and UK (tonnes)[190]



While Canada is a major exporter of wheat into the UK, Canada's wheat trade is still distorted by the Canada Wheat Board (CWB).[191] UK wheat producers could argue that Canadian wheat imports are beneficiaries of a distortion in the Canadian market and therefore should be subject to additional duties under the ACMD mechanism discussed. The US will also want to increase its exports of wheat to the UK.

Horticulture, Fruit and Vegetables

Horticulture is a key agricultural sector in the UK, employing 100,000 full-time and seasonal workers and contributing over £3bn to gross value added. In 2017, this included vegetables (£1.46bn), fruit (£765m) and ornamentals (£1.35bn).

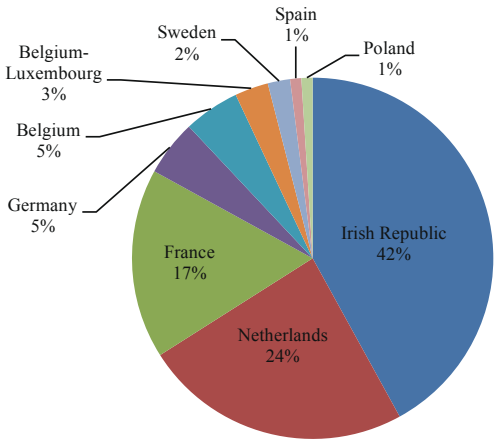
Fruit

UK fruit production has grown in the region of 80% by value and 40% by volume since 2007, reflecting increased domestic demand and improved farming techniques.[192] While UK fruit production has grown in recent years, it remains a net import sector in UK agriculture.

190 Analysis using Eurostat data.
191 WTO (2010), 'DS276: Canada – Wheat Exports and Grain Imports'. Available at: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds276_e.htm
192 Department for Environment and Rural Affairs (2018), 'Horticulture Statistics 2017'. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/712016/hort-report-31may18.pdf

This is largely due to the UK's climate, which makes domestic production of most popular fruits (e.g. bananas, citrus fruits and melons) impossible.

Figure 21: UK Exports of Fresh Fruit, 2015 (volume)



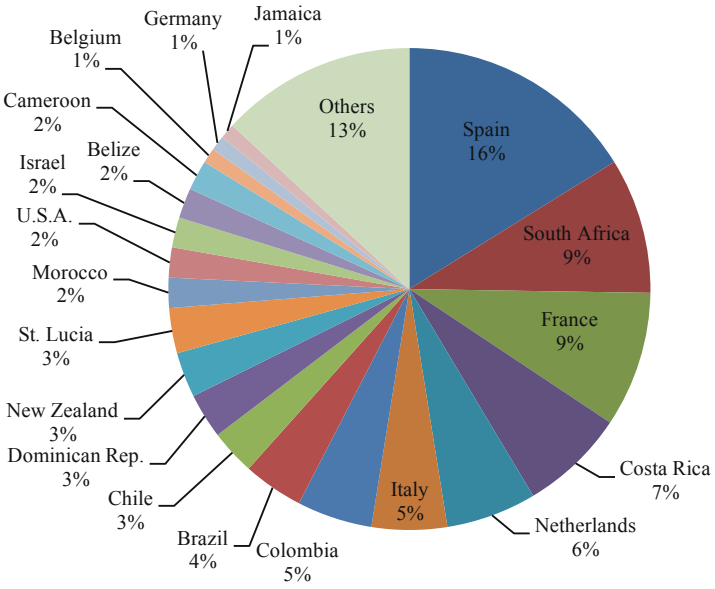
In 2017, UK farmers produced 743,000 tonnes of fruit, of which 177,000 tonnes were exported/re-exported. A further 4,013,000 tonnes were imported. Of the fruit produced, 38.45% (285,600 tonnes) were cider apples and perry pears for cider production, 22.96% (170,500 tonnes) were dessert apples, 17.18% (127,600 tonnes) were strawberries, 9.57% (71,100 tonnes) were culinary apples, 3.72% (27,700 tonnes) were pears, and 2.22% (16,500 tonnes) were raspberries, with the remaining shares made up of other fruits such as plums, cherries, etc.[193]

Of the 4,013,000 tonnes of fruit imported, 30.77% were bananas, 13.08% were apples, 7.62% were melons, 7.20% were small citrus fruits, 7.15% were oranges, 6.75% were grapes, 4.19% were pineapples, 3.84% were lemons and limes, 3.31% were pears, and 2.24% were peaches and nectarines.[194] These are primarily crops that cannot be grown domestically. The provenance of fruit imports is diverse and heavily features non-EU countries. As discussed later, expanded EPAs with ACP countries as well as reduction or wholesale elimination of TRQs will reduce prices for these goods. UK fruit exports are limited in both quantity and value and are mostly restricted to other EU nations.

193 Ibid.
194 Ibid.

The UK could unilaterally reduce tariffs and quotas for many of the tropical fruits it does not produce. However, as these policies are put in place, some consideration should be given to developing country fruit producers who currently benefit from generalised system of preferences (GSP), GSP+ and other benefits, discussed further below. As part of the relationship between the UK and ACP countries, in exchange for a more generally open agricultural market in fruit, the UK should consider compensating ACP farmers in the form of structural adjustment loans and/or grants.

Figure 22: UK Imports of Fresh Fruit, 2015 (volume)



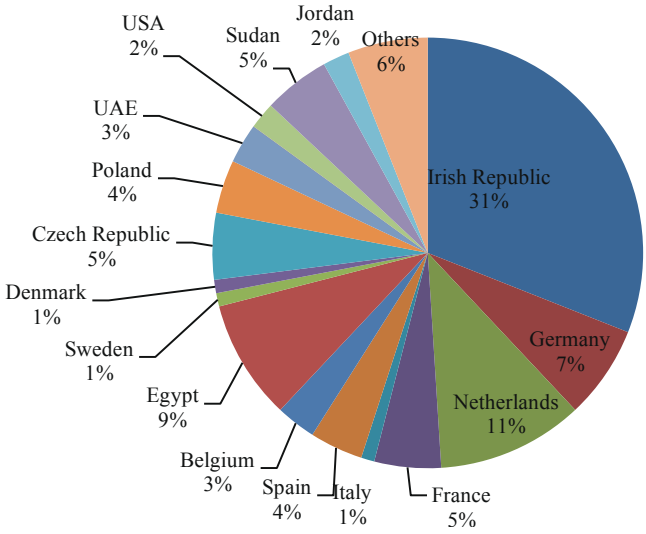
Vegetables

In 2017, UK farmers produced 2,414 thousand tonnes of vegetables, of which 129.8 thousand tonnes was exported. A further 2,188.5 thousand tonnes were imported. In 2017, domestic production of vegetables was valued at £1.1bn and provided around 65% of UK supply. This sector has seen increased consumer demand in recent years, which has put pressure on the ability of UK farms to fill domestic supply. Since 2005, the value of field vegetable production (which includes peas, carrots, broccoli, leeks, celery and asparagus) has risen by 32% while the quantity has remained static. In that same period, the value of protected vegetables (which includes tomatoes, lettuce and other salad items) has risen by 58.5% while the

quantity has risen by 24%. As with hothouse fruits, this reflects improvements in technology and technique amongst UK farmers and horticulturalists.[195]

Imports of vegetables are dominated by Spain and the Netherlands but remain diverse with several major suppliers outside of the EU. Exports of vegetables are minimal in both quantity and value but include a more significant non-EU market share than other agricultural commodities.

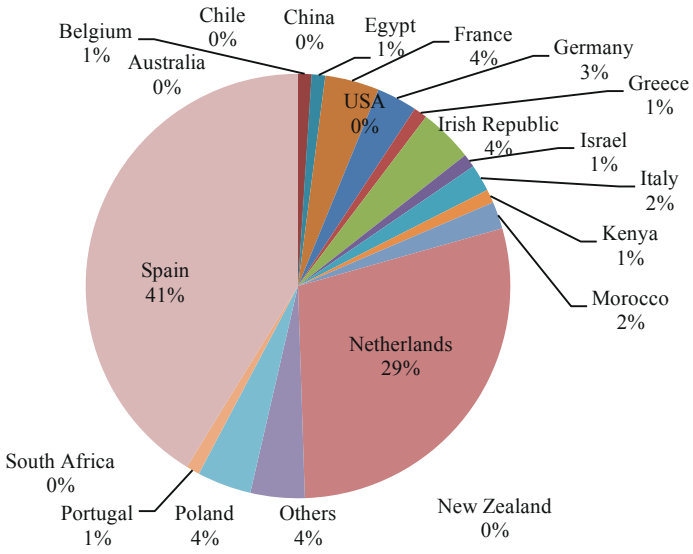
Figure 23: UK Exports of Fresh Vegetables, 2015 (volume)



Although the UK is a major producer for its own consumption and there are competing products from the EU, it may seek to explore trade with some of the non-EU countries. For example, China, Mexico and Canada were three of the top five vegetable exporters in 2015.[196] The UK could choose to retain the CET and quota allowance but could also seek to expand its own exporting opportunities by opening up to such countries in the context of FTAs.

195 Ibid.
196 Data from 'World's richest Countries'. Available at: http://www.worldsrichestcountries.com/top-exported-vegetables-countries.html

Figure 24: UK Imports of Fresh Vegetables, 2015 (volume)



There are TRQs on a range of fruit and vegetable products. The table below sets out the quotas and tariffs in aggregate. Thailand, China and Indonesia in particular benefit.

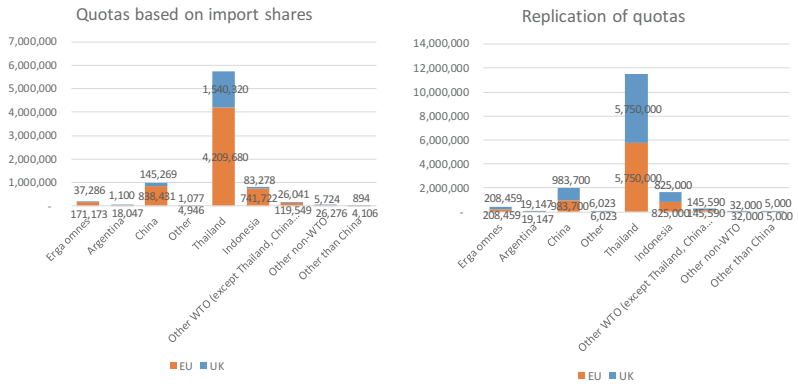
Table 16: EU Fruits and vegetables quotas and import duties – WTO certified schedule[197]

Commodity	Quota (WTO certified schedule) (tonnes)	Import duty MFN	Within-quota import duty	Origin
Fruits and vegetables	19,147	EUR 6.4/100 kg – 18.4% + EUR 222.00/100 kg	0% – 23%	Argentina
	983,700	EUR 6.4/100 kg – 18.4% + EUR 222.00/100 kg	0% – 23%	China
	208,459	EUR 6.4/100 kg – 18.4% + EUR 222.00/100 kg	0% – 23%	Erga omnes
	825,00	EUR 6.4/100 kg – 18.4% + EUR 222.00/100 kg	0% – 23%	Indonesia
	6,023	EUR 6.4/100 kg – 18.4% + EUR 222.00/100 kg	0% – 23%	Countries other than those specified
	32,000	EUR 6.4/100 kg – 18.4% + EUR 222.00/100 kg	0% – 23%	Other non-WTO countries
	5,000	EUR 6.4/100 kg – 18.4% + EUR 222.00/100 kg	0% – 23%	Countries other than China
	145,590	EUR 6.4/100 kg – 18.4% + EUR 222.00/100 kg	0% – 23%	Other WTO countries (except Thailand, China and Indonesia)
	5,750,000	EUR 6.4/100 kg – 18.4% + EUR 222.00/100 kg	0% – 23%	Thailand

197 WTO (2016), 'Certification of Modifications and Rectifications to Schedule CLXXIII – European Union', 1 December 2016. This also includes quotas for countries such as Bulgaria, whose accession is not yet reflected in the latest certified WTO schedule.

The figures below illustrate the potential UK quotas for aggregate fruit and vegetables. Thailand by far has the largest quota for access to the EU, and the UK also accounts for a larger share of imports from Thailand, and therefore could have a relatively higher quota for Thailand.

Figure 24: Potential import quotas of Fruits and Vegetables into the EU and UK (tonnes)[198]



Sugar

Sugar remains a relatively undiversified corner of the agricultural market in the UK. UK Sugar is the sole processor and buyer of beet sugar produced in the UK, while Tate & Lyle Sugar is the only domestic processor of cane sugar imported into the UK. Beet sugar remains the second-most profitable crop for UK farmers (after potatoes) and is often used in arable crop rotations. It provides roughly half of the total sugar consumed in the UK. Beet sugar grown in the UK is sold at a set price to British Sugar, which then processes the beet at one of four factories in England. The 2017/18 season has a set minimum price of £22 per tonne.

The remainder of sugar consumed in the UK is imported either in the raw form, which is processed by Tate & Lyle Sugar, or already processed as a finished good. The sugar cane industry in the UK has suffered in recent years due to EU intervention pricing and TRQs designed to favour beet sugar, which is produced in large quantities on the continent. The 2006 round of reforms (prompted by WTO complaints about the arcane support system used in Europe) did not eliminate export subsidies for beet sugar, helping to maintain the uncompetitive advantage beet sugar is given over cane sugar in the EU.

198 Analysis using Eurostat data.

The EU elected to remove sugar beet production quotas in 2017, thus allowing producers to sell as much sugar beet as they choose to produce to the market. DEFRA released a study in 2015 on the likely effects of this reform and found that actual sugar beet production across the EU-28 will probably increase by 6% to 2020 (over and beyond what production would have been with the quota in place), leading to a 5% decrease in returns to farmers and a 15% price reduction for consumers.

Barring reform, white sugar prices in Europe will still be around 15% above global averages, and cane sugar will remain artificially costly to import into the EU. According to the report, 'in all years post-2017, EU refining margins are strongly negative at between –EUR 140 to –EUR 165 EUR/tonne...' These projections are reflected in the low and declining level of EU imports projected by the Commission post-2017.[199]

199 Davies, G., Heffernan, C., and Bell, A. (2015), 'Modelling the EU cane refining sector after 2017', Department for Environment and Rural Affairs, 2015. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/479840/pb14351-sugar-cane-modelling-2015.pdf

Table 17: EU Sugar quotas and import duties – WTO certified schedule[200]

Commodity	Quota (WTO certified schedule) (tonnes)	Import duty MFN	Within-quota import duty	Origin
Sugar	1,294,700	EUR 33.90/100 kg – EUR 41.90/100kg	0%	ACP countries
	9,925	EUR 33.90/100 kg	EUR 9.80/100 kg	Australia
	10,124	EUR 33.90/100 kg	EUR 9.80/100 kg	Brazil
	86,876	EUR 33.90/100 kg	EUR 9.80/100 kg	Erga omnes
	10,000	EUR 33.90/100 kg – EUR 41.90/100kg	0%	India

200 WTO (2016), 'Certification of Modifications and Rectifications to Schedule CLXXIII – European Union', 1 December 2016. This also includes quotas for countries such as Bulgaria, whose accession is not yet reflected in the latest certified WTO schedule.

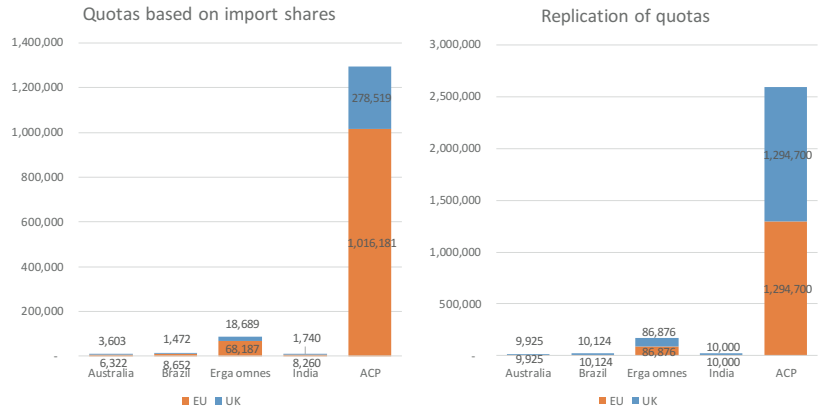
Table 18: EU Sugar quotas and import duties – EU regulation[201]

Commodity	Quota (EU regulation) (tonnes)	Import duty MFN	Within-quota import duty	Origin
Sugar	9,925	EUR 33.90/100 kg – EUR 41.90/100kg	EUR 9.80/100 kg	Australia
	334,054	EUR 33.90/100 kg – EUR 41.90/100kg	EUR 9.80/100 kg	Brazil
	68,969	EUR 33.90/100 kg – EUR 41.90/100kg	EUR 9.80/100 kg	Cuba
	253,977	EUR 33.90/100 kg – EUR 41.90/100kg	EUR 9.80/100 kg	Erga omnes
	10,000	EUR 33.90/100 kg – EUR 41.90/100kg	0%	India
	1,000	EUR 33.90/100 kg – EUR 41.90/100kg	0%	Albania
	12,000	EUR 33.90/100 kg – EUR 41.90/100kg	0%	Bosnia and Herzegovina
	181,000	EUR 33.90/100 kg – EUR 41.90/100kg	0%	Serbia
	7,000	EUR 33.90/100 kg – EUR 41.90/100kg	0%	Former Yugoslav Republic of Macedonia
	30,070	EUR 33.90/100 kg – EUR 41.90/100kg	0%	Ukraine
	23,980	EUR 33.90/100 kg – EUR 41.90/100kg	0%	Peru
	67,580	EUR 33.90/100 kg – EUR 41.90/100kg	0%	Colombia

201 European Commission (2018), 'Trade Statistics: Sugar'. Available at: https://ec.europa.eu/agriculture/sites/agriculture/files/sugar/presentations/trade-statistics_en.pdf [acc. 19/04/18]

The following figures illustrate the potential UK quotas that could be set based on the current EU quotas in the WTO certified schedule. The UK imports relatively more from Australia, ACP countries and on an *erga omnes* basis, and so the quota share could be set higher from imports from these sources.

Figure 25: Potential import quotas of Sugar into the EU and UK (tonnes)[202]



202 Analysis using Eurostat data.

A.2 History of the CAP

By understanding the overall direction of travel of agricultural reform, we may be able to set out how reforms in UK policy flow from CAP and reform efforts. In particular, the difficulties associated with CAP reform do not necessarily constrain UK reform efforts, as the same challenges and priorities will not necessarily apply.

The CAP was created in 1962 and the UK came under the CAP umbrella when it joined the EU in 1973. Since the 1960s it has undergone several periods of reform, most recently in 2013. The CAP was intended to guarantee a food supply chain throughout Europe which was equitable to consumers and producers, but despite the reforms, it is viewed to be misdirected, cumbersome, costly and bureaucratic, with unclear objectives.[203] In the 1960s and 1970s, the CAP was characterised by guaranteed, single prices for farmers (called 'units of account'). Sicco Mansholt of the Netherlands drafted the 'Mansholt Plan' in 1968, which aimed to incentivise farmers to retire so that land could be redistributed to larger farms, thus consolidating the industry and increasing profitability so that the average earnings of farmers would more closely match other workers. The Mansholt Plan also would have limited the state aid available to small, unproductive farmers. The Mansholt Plan recognised that without serious reform, the guaranteed prices within the CAP would lead to massive overproduction. It was widely controversial and was eventually passed as a watered-down plan focused on modernisation spending (with no incentives for unproductive farmers to leave the market) in 1972.[204] The difficulties which Mansholt encountered dissuaded any further would-be reformers from coming forward in the following decades, and the presaged overproduction did occur.

In 1975, additional payments for farmers in disadvantaged areas were introduced (which still exist today as less-favoured area payments). By this time, the CAP was absorbing two-thirds of the total EU budget and EU production was far outpacing demand. The guaranteed price system famously created butter mountains and milk and wine lakes as the EU was forced to either allow these goods to spoil, or to pay export subsidies to lessen the chasm between artificially-inflated European prices and world

203 HM Government (2014), 'Review of the Balance of Competences between the United Kingdom and the European Union: Agriculture (2014)'. Available at: https://www.gov.uk/government/uploads/system/uploads/ attachment_data/file/335026/agriculture–final–report.pdf

204 Penguin (2012), 'Mansholt Plan', Penguin Companion to the European Union, 2012. Available at: http://penguincompaniontoeu.com/additional_entries/mansholt-plan/

market prices. A co-responsibility levy introduced in 1979 and milk production quotas introduced in 1984 attempted to mitigate the costly effects of overproduction, but were not entirely successful.[205] Dr David Stead of University College Dublin succinctly explains the domestic consumer and global welfare costs associated with this era of the CAP regime:

> 'European taxpayers have paid higher taxes than would have been the case in the absence of farm support, while the setting of target and intervention prices substantially above the prices prevailing on world markets raised the cost of food for European consumers. Estimates of the CAP's total expense vary widely due to differences in the methods employed and movements in world commodity prices; one ballpark figure for the late 1990s was a cost to each EU citizen of about £250 per year.'[206]

The next round of reforms came in the early 1990s under Ray MacSharry, largely prompted by international pressure during the Uruguay Round. The MacSharry Reforms aimed to increase the competitiveness of the European agricultural sector and temper the policies of the 1970s and 1980s. These reforms, passed in 1992 and put into effect in 1994, marked the beginning of the shift from production subsidies to producer income support. Price supports were reduced in key sectors, including cereal (which saw a 35% reduction in guaranteed prices) and beef (which saw a 15% reduction in guaranteed prices). The milk production quota and set-aside programmes (which paid arable farmers to not farm on the land available to them) were continued, as were headage payments for livestock. A different sort of production subsidy was introduced to pay farmers per hectare used for farming. These payments (the forerunner of today's Voluntary Coupled Support ('VCS') system) were considered advantageous over previous production subsidies because they did not incentivise intensive farming – e.g. a farmer was given a fixed subsidy for one hectare of land, not a subsidy dependent on how much wheat or barley he/she was able to extract from that one hectare of land. The MacSharry Reforms also introduced schemes designed to encourage environmental stewardship and the development of rural areas. Today, the EU considers these programmes as two of the main benefits of the CAP.

205 European Commission (2019), 'CAP at a Glance'. Available at: http://ec.europa.eu/agriculture/cap-history/crisis-years-1970s_en

206 Economic History Association, 'Common Agricultural Policy'. Available at: https://eh.net/encyclopedia/common-agricultural-policy/

The Agenda 2000 Reforms carried forward the legacy of MacSharry and formally introduced two pillars of CAP: production support (Pillar I) and rural development (Pillar II). It made agri-environmental schemes mandatory for member states and continued the rural development schemes introduced in 1992, as well as adding diversification and young farmer schemes. Price supports for milk, cereals and beef were further reduced.

The Fischler Reforms of 2003 came amidst the accession of several major agricultural-producing countries in Central and Eastern Europe and increased pressure from the WTO on subsidy payments during the Doha Round. The Fischler Reforms pioneered 'decoupling' in the form of Single Farm Payments (SFPs). The SFPs largely (but not entirely) decoupled subsidies from acreage/headage, a legacy from the MacSharry Reforms. Member states were allowed to continue coupling a certain percentage of sector-specific payments; these were 25% for arable crops, 40% for durum wheat, 50% for sheep and goats, 100% for suckler cows, 40% for slaughter cows and 75% for the special male premium.[207] Member states were also allowed (by Article 69 of Council Regulation No. 1782/2003) to retain 10% of coupled payment ceilings under Pillar I direct payments for specific types of farming deemed to be important for the 'protection or enhancement' of the environment or the quality of agricultural products.[208]

Member states were granted (and retain today) some flexibility on which, if any, VCS payments they chose to include as part of their national agricultural packages. As discussed below, the UK has historically opted out of many VCS payments for which UK farmers would otherwise be eligible. This puts the UK food manufacturing industry at a competitive disadvantage with its European counterparts, as the supply of raw materials is less stable without the guaranteed subsidy payment. Instead of acreage/headage couplings, the SFP was dependent on meeting other environmental and animal welfare requirements which the EU deemed to be desirable, called 'cross-compliance'.[209] Funds were moved from Pillar I production support to Pillar II rural development under the policy of 'modulation', which attempted to reduce the dominance of funds going to large farms. Earlier EU-commissioned studies showed that 80% of CAP payments

207 CAP Reform (2015), 'Two steps forward, one step back: coupled payments in the CAP'. Available at: http://capreform.eu/two-steps-forward-one-step-back-coupled-payments-in-the-cap/

208 Ibid.

209 This is, in practice, poorly enforced.

went to only 20% of farms,[210] with more severe concentration occurring in poorer member states.

Although the Fischler Reforms primarily affected the mode of subsidy payment transfer to farmers, rather than the amount, they were still considered radical and prompted pushback from certain member states.[211] France received guarantees before and during the Fischler Round that no further payment reforms would be undertaken until at least 2012, and member states were given the option of applying for delays in implementation of these reforms until 2012 (seven years after the original implementation date of 2005).[212] The UK was primarily concerned with the proposed ceiling on payments to individual farms (because of the legacy of a small number of very large UK landowners) and received a dispensation immediately before the introduction date in May 2005 which allowed for flat payments on non-productive but cultivatable land that met cross-compliance requirements. Reforms proposed in 2007 to limit SFPs to £300,000 per landowner were also rejected.[213] This is an example of a failed reform that might foreshadow potential UK reforms.

The legacy of the Fischler Reforms continued with subsequent reforms of individual commodity regimes, culminating in the 2008 Fischer Boel Health Check which integrated arable crops, olive oil and hops into the Single Payment Scheme.[214] The 2008 Health Check also required integration of processing aids and some other coupled payments (primarily in the beef sector) into the Single Payment Scheme by 2012. The only coupled aids allowed to remain post-2013 were for suckler cows, sheep and crop-specific aids for cotton.[215] Funds for potentially trade-distorting measures (defined by Article 68) were capped at 3.5% of national envelopes.[216]

210 Again, in practice this has not occurred. However, under different leadership, such a drive could well be implemented under the existing regulations.
211 Swinnen, J. (2010), 'The Political Economy of the Most Radical Reform of the Common Agricultural Policy', GJAE (59), 2010.
212 European Commission (2019), 'CAP at a Glance'. Available at: http://ec.europa.eu/agriculture/cap-post-2013_en
213 The Independent. Available at: http://news.independent.co.uk/uk/this_britain/article3143253.ece [acc. 19/04/2018]
214 CAP Reform (2015), 'Two steps forward, one step back: coupled payments in the CAP'. Available at: http://capreform.eu/two-steps-forward-one-step-back-coupled-payments-in-the-cap/
215 Ibid.
216 Ibid.

The fruit and vegetables sector was reformed in 2007 to move subsidies under the SFP umbrella, encourage farmers to join producer organisations, increase funding/support for organic products, require producer organisations to include minimum environmental spending levels in their programmes, fully decouple processing aids and abolish export subsidies.[217] Bananas are considered separately from other fruits and vegetables. In 2006, a tariff-only import regime was installed for bananas, primarily affecting Latin American countries with most-favoured nation (MFN) status trade relations with the EU. In 2009, it was committed that the EUR 176/1,000 kg rate established in 2006 would be reduced to EUR 114/1,000 kg by 2019 at the latest. In 2008, ACP countries were granted quota- and tariff-free access to the EU market for bananas.[218]

Tobacco production was initially reformed during the 2003 process, with the elimination of production quotas and a decoupling of support from production by 2009. Full decoupling of the sector was achieved in 2010.[219] Hops producers saw the production aid (previously EUR 489/1,000 kg) moved to Pillar I direct payments in 2005.[220] EU cotton production, which is fully concentrated in Greece and Spain, was moved from a deficiency payment system to decoupled payments and crop-specific aid in 2006. In 2009, a restructuring scheme was established to provide funds for the closure of ginning facilities and investment/promotion activities. Cotton is a fully open market, as all import duties and export subsidies have been removed.[221] Rice saw crop-specific aid abolished in 2012, although intervention schemes remain in place. There are import licensing restrictions on rice, as well as import quotas and duties; export subsidies were ended in 2006. Crop-specific aid for protein crops and oilseeds was ended by 2012 and import tariffs for both products have been eliminated.[222] The Wine Common Market Organisation reforms of 2008 included funds for third-country promotion, harvest insurance, mutual funds and the restructuring of old vineyards.

217 European Commission (2007), 'Fruit and Vegetables: The 2007 reform'. Available at: https://ec.europa.eu/agriculture/fruit-and-vegetables/2007-reform_en
218 European Commission (2006), 'Bananas other than Plantains'. Available at: https://ec.europa.eu/agriculture/bananas_en
219 European Commission (2003), 'Raw Tobacco'. Available at: https://ec.europa.eu/agriculture/tobacco_en
220 European Commission (2013), 'Hops'. Available at: https://ec.europa.eu/agriculture/hops_en
221 European Commission (2012), 'Cotton'. Available at: https://ec.europa.eu/agriculture/cotton_en
222 European Commission (2012), 'Cereals, Oilseed and Protein Crops, Rice'. Available at: https://ec.europa.eu/agriculture/cereals_en

The most recent round of CAP reform came in 2013 under the 'CAP Towards 2020' report. This report lists viable food production, sustainable management of natural resources and balanced territorial development as the three main goals of the CAP going forward and envisages a system in which Pillar I direct payments are 'greener and more equitably distributed' and Pillar II rural development payments are more focussed on 'competitiveness and innovation, climate change and the environment'.[223] The full coupled and decoupled schemes under the 2013 reforms can be broadly divided into basic income and greening payments (which covers cross-compliance).

223 European Commission (2010), 'The Cap Towards 2020'. Available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0672:FIN:en:PDF

A.3 Dairy intervention

From 1984 to 2015, the EU maintained a milk quota system in which farmers received a production quota based on the amount of land they held. These quotas were tradeable items, and so farmers could increase their quotas by purchasing more land that had milk quotas attached or buy the quota directly from other farmers. Any milk sold on the market in a given year above the allotted quota was subject to a levy.[224] As part of the EU's 'Solidarity Package for Agriculture', a response to the Russian import ban on a variety of products, several programmes have been rolled out, including the Milk Production Reduction Scheme (EUR 150m), conditional adjustment aid (EUR 350m, which can be matched by national funds), and technical measures including voluntary coupled support, cash advances on payments, and an extension of certain private storage aid programmes, notably for SMP.

A milk package intervention scheme ran until December 2015, and was replaced in January 2016 with volume limits reset for SMP. The milk package includes the buying-in by member states of butter and SMP into public storage – i.e. public intervention. It calls for member states to buy these products from private operators at fixed-price quantities between 1 March and 30 September of each year.[225] It specifically allows for '60,000 tonnes of butter and 109,000 tonnes of SMP to be bought at set intervention prices of EUR 2,217/tonne and EUR 1,698/tonne respectively. After the ceiling is reached, product can then only be offered into intervention through a tendering process rather than at the set prices.'[226] This ceiling was reached by 31 March (the end of the first month of the offering) in 2016, and all subsequent purchases should have been subject to tendering. The European Commission chose, however, to raise the ceiling in 2016 to 100,000 tonnes of butter and 218,000 tonnes of SMP at fixed prices.[227] This new ceiling was reached on 24 May, and raised again to 350,000

224 HMRC (2018), 'Milk Quotas'. Available at: https://www.gov.uk/hmrc-internal-manuals/vat-food/vfood9950

225 European Commission (2017), 'Policy Instruments for the Dairy Sector'. Available at: http://ec.europa.eu/agriculture/milk/policy-instruments/index_en.htm

226 AHDB, 'EU Market Support'. Available at: https://dairy.ahdb.org.uk/market-information/processing-trade/eu-market-support/eu-intervention-stocks/+&cd=1&hl=en&ct=clnk&gl=uk#.WAD5T-ArK70 [acc. 18/04/2018]

227 AHDB (2019), 'EU Intervention Stocks'. Available at: http://dairy.ahdb.org.uk/market-information/processing-trade/eu-market-support/eu-intervention-stocks/#.V-rWnY-cHIW

tonnes.[228] The SMP and butter products bought by member states are not necessarily immediately sold onto the market, but when 'market conditions so allow'.[229] This is an example of distortive agricultural policies within the CAP. The present glut in the global market is likely to contract once the Russian import ban on dairy products is lifted, and such drastic short-term interventions in the market have raised the price of liquid milk, impacting consumers across the EU.

A.4 Public intervention and private storage aids

EU price supports and private storage aids ('PSAs') are currently in place across a range of sectors, however interventions only take place rarely as they are intended to be used as emergency measures to protect agriculture from severe market volatility. Under Regulation (EU) 1308/2013, public intervention (where the member state takes ownership of the product) may be used for common wheat, durum wheat, barley, maize, paddy rice, fresh or chilled beef and veal, butter and SMP. PSA, where a private company takes ownership and has a storage contract with the authorities of the member state, may be used for white sugar, olive oil, flax fibre, fresh or chilled beef, butter, cheese, SMP, pigmeat, sheepmeat and goatmeat.

The use of either public intervention or PSAs is usually discretionary and only for a limited period for specified maximum quantities. The 2013 reforms left intervention prices and private storage aid programmes largely untouched, with the exceptions being butter, SMP, mature cheese and flax fibre. For butter, the limit for intervention price purchases were raised from 30,000 to 50,000 tonnes and the buying-in period for butter and SMP was increased from six to seven months (through to 30 September). Mature cheese and flax fibre were added to the eligible products list for private storage aid.[230]

The high intervention prices that traditionally supported the cereals sector have mostly been reduced by various rounds of CAP reform; there was a 30% reduction in the MacSharry Reform and a further 15% reduction

228 AHDB (2019), 'EU Intervention Stocks'. Available at: https://dairy.ahdb.org.uk/market-information/processing-trade/eu-market-support/eu-intervention-stocks/#.WAD4keArK73

229 European Commission (2017), 'Policy Instruments for the Dairy Sector'. Available at: http://ec.europa.eu/agriculture/milk/policy-instruments/index_en.htm

230 WTO (2015), 'Trade Policy Review: European Union'. Available at: https://www.wto.org/english/tratop_e/tpr_e/tp417_e.htm

in Agenda 2000.[231] These early high intervention prices encouraged overproduction, which created a cycle of lower market prices and increased levels of EU intervention purchasing – an example of government interventions distorting the market. Immediately before the MacSharry Reforms in 1992, public intervention stocks reached their highest ever level.[232] Large quantities of specific crops being offered into intervention often leads to their being phased out of the programme, as was the case with rye and maize. All intervention stocks were cleared in the 2007/08 season, and again in 2010/11.[233,234]

PSA is most commonly used for dairy products, specifically butter, SMP and cheese.[235] In response to the present glut in the dairy market caused by the Russian import ban, the PSA scheme for these products was extended through to 30 September 2017.[236] A further aid package, introduced in 2015, allows payment for up to one year of storage at inflated rates, for up to 100,000 tonnes of cheese.[237] Illustrating the problems evident in PSA schemes, 108,000 tonnes of cheese was offered into PSA in 18 days, much of which came from member states that do not usually export cheese to Russia.[238]

231 European Commission, 'Cereals Factsheet'. Available at: http://ec.europa.eu/agriculture/cereals/factsheet-cereals_en.pdf [acc. 18/04/2018]
232 Ibid.
233 Ibid.
234 Ibid.
235 AHDB (2019), 'EU Intervention Stocks'. Available at: https://dairy.ahdb.org.uk/market-information/processing-trade/eu-market-support/eu-intervention-stocks/#.WAD4keArK73
236 Ibid.
237 Ibid.
238 AHDB, 'EU Market Support'. Available at: https://dairy.ahdb.org.uk/market-information/processing-trade/eu-market-support/eu-intervention-stocks/+&cd=1&hl=en&ct=clnk&gl=uk#.WAD5T-ArK70 [acc. 18/04/2018]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