TRADING AWAY EU FARMERS

THE RISKS TO EUROPE'S AGRICULTURE FROM THE TTIP

APRIL 2016

Friends of the Earth Europe

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Thanks to Jean Christophe Bureau, Alan Matthews, Leokadia Oreziak for their insightful comments to the report.

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Funders: Friends of the Earth gratefully acknowledges the financial assistance of European Commission's DG Environment for this publication. The contents of this document are the sole responsibility of Friends of the Earth Europe and cannot be regarded as reflecting the position of the funder mentioned above. The funder cannot be held responsible for any use which may be made of the information this document contains.

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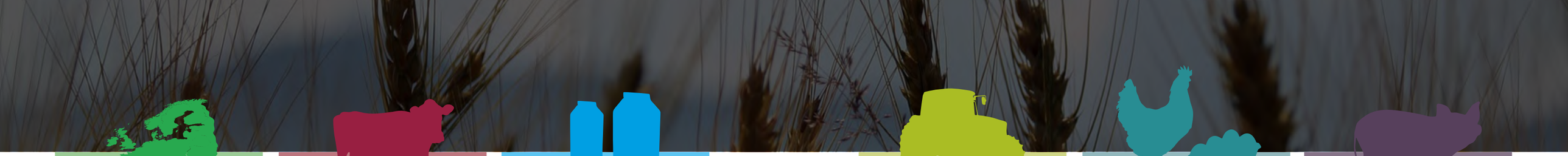
Summary

The Transatlantic Trade and Investment Partnership (TTIP) could have major impacts on farming and food production in the European Union. Corporate lobby groups on both sides of the Atlantic are pushing for more market access[1] [2], but European and American food is produced to different standards of food safety (DG Internal Policies, 2015), animal welfare (World Animal Protection/Humane Society International, 2014) and environmental protection (FOE Europe/IATP, 2013).

The food and drink industry in the European Union has an estimated turnover of €1.2 trillion (FoodDrinkEurope, 2015), but the trade is highly complex, with variations between farming sectors, types of manufacturer and different member states. Only a few studies have even attempted to assess the impact of the TTIP on food and farming, and they have struggled to capture this complexity.

The studies show that export opportunities created through any TTIP do not necessarily translate into better incomes, with the US Department of Agriculture predicting falls in the price paid to EU farmers in every food category (Beckman, et al., 2015). European gains are restricted to a few sectors, such as cheese, but even these are highly dependent on the US making changes to the 'non-tariff measures' that it uses to restrict trade (Bureau, et al., 2014).

The models predict that the TTIP will increase food and agriculture imports from the US (Fontaigne, et al., 2013; Beckman, et al., 2015), to the possible detriment of EU farmers, with the existence of whole sectors potentially threatened (Bureau, et al. 2014). Producers supplying the EU from other world regions would also potentially lose out as trade is displaced by US producers (Beckman, et al. 2015). Civil society groups and farming organisations have expressed concern that the TTIP will lead to the further intensification and corporate concentration of agriculture on both sides of the Atlantic. Consumer and environmental protection may suffer too, because both US government and producer organisations are openly calling for the EU to weaken protection in areas such as the approval of GM foods, pesticide safety rules and the bans on hormones and pathogen washes in meat production.[3]



GEOGRAPHICAL INDICATIONS

A Geographical Indication (GI) gives protected status to regional produce, which account for around 6% of total food and wine sales within the EU (Chever, et al., 2012). The European Commission has placed great importance on getting protection for Geographical Indications in the TTIP agreement, but there is fierce resistance to this from US lobby groups and the US Congress (US Congress, 2014).

90% of GI exports outside the EU are of wines and spirits (Chever, et al., 2012); domestic and EU markets are far more important for producers of GI foodstuffs (DG Agriculture and Rural Development, 2015f). In fact, just three member states (France, Italy and the UK) accounted for 86% of GI exports in 2010, with a very small number of products accounting for much of this trade: champagne, cognac, scotch whisky, Grana Padano and Parmigiano Reggiano (Chever, et al., 2012).

Even if the Commission is successful in negotiating a deal on GI produce, this seems most likely to benefit a specific group of producers in a small number of member states. There are concerns that the interests of other farming sectors are being traded away in the Commission's push to get an agreement (ICOS, 2015).

BEEF

All the economic modelling studies predict that, if EU tariffs are eliminated, there will be significant increases in imports of US beef, of up to $3 billion (Fontaigne et al., 2013). Traditional beef grazing farms, which produce high quality meat, are considered particularly vulnerable to imports of cheaper US beef, and there could be "potentially far-reaching social and environmental consequences for some EU regions." (Bureau, et al., 2014. p 49)

At the moment, US imports are restricted due to the EU's ban on beef hormones[4] and limited import quota for hormone-free beef. There has been a lot of pressure for the ban to be lifted (Western Livestock Journal, 2015), but it is thought more likely that a deal will be struck for increased imports of US hormone-free beef. It is possible that a quota will be agreed for US beef imports, rather than a complete removal of tariffs, but this could still have severe impacts on EU farmers (Thelle, et al., 2015). One French farming organisation has suggested that the expected quota, combined with one recently agreed for Canada, could lead to a "40% to 50% drop in revenue for... European cattle farmers" (Interbev, 2015).

DAIRY

Dairy trade is complex, with very different products (from dried milk to traditional cheeses), and retailers varying from multinational corporations to small farmers. Changes to EU milk quotas and the subsidy regime are already having major impacts on dairy farming. The European Commission wants better access to US dairy markets through the TTIP, but in recent negotiations with Pacific countries the US government gave few concessions that would hurt its dairy industry (USDA Foreign Agricultural Service, 2015a).

The economic models predict substantial increases in dairy trade flows as a consequence of the TTIP - US exports are predicted to rise by up to $5.4 billion, with EU exports increasing by up to $3.7 billion, although the authors state that these figures should be treated with caution (Bureau et al., 2014; Fontaigne et al., 2013) Despite increasing trade, European dairy farmers could experience falling prices (Beckman, et al., 2015) and in some member states, particularly Austria, Benelux and the UK, the value of the entire dairy industry is predicted to decline (Bureau, et al, 2014).

The European Commission argues that the TTIP will increase EU dairy exports, but most of the gains will be for cheese (Beckman, et al., 2015). The Commission also appears to be placing great emphasis on getting protection for a list of registered Geographical Indications, a large proportion of which are expected to be cheeses. Farmer organisations have expressed concern that the interests of other dairy sectors will be sacrificed by the Commission in order to strike a deal (ICOS, 2015).

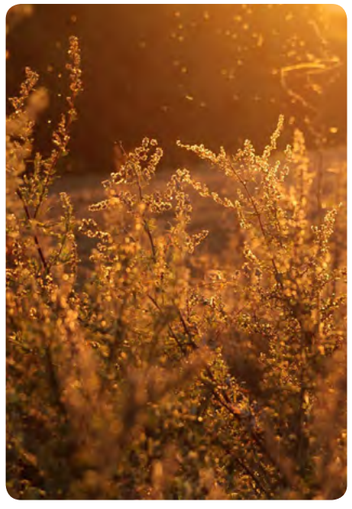
Due to the complexity of dairy trade, and the links between commodity prices and the price farmers receive for their milk, it is difficult to predict the impact of the TTIP. More analysis is needed of any integrated US-EU market on the survival of small and medium-sized dairy farms.

ARABLE CROPS

The US and EU are both major producers, although they differ in their most important crops (International Grains Council, 2016). Trade is fairly minor - the US is not an important destination for any EU cereals or oilseeds, and the only major US export to the EU is of soybeans and soymeal (DG Agriculture and Rural Development, 2015e).

Although the European Commission has stated that the TTIP will not affect EU legislation or procedures on GM crops (DG Trade, 2015), statements have been made by US government agencies highlighting GM regulation as a matter for the negotiations.[5]

The models predict that tariff elimination within the TTIP will have a negative impact on EU cereals production, with declines of up to 6% in some member states (Bureau, et al., 2014). EU production of wheat, maize and oilseed rape are all predicted to decline in most scenarios, and "a trade agreement may lead to large EU imports from the US." (Bureau et al, 2014, p 57). However, the consequences for arable farmers are difficult to predict because they can grow other crops.



POULTRY AND EGGS

There is very little trade in poultry products or eggs between the US and EU (European Commission, 2016), but US lobby groups want to use the TTIP to open up the EU market. European producer organisations are concerned about this because welfare standards are generally weaker in the US, and there are mostly only voluntary codes for animal welfare (National Chicken Council, 2012), while poultry and egg farmers in the EU must conform to stricter legislative requirements.[6] Despite this, animal welfare issues have been ruled out of the TTIP agreement.

Safety and hygiene standards are very different between the EU and US, with the EU taking a more costly 'farm to fork' approach (van Horne & Bondt, 2014). Due to these differences, poultry meat imports from the US are restricted because the EU does not allow 'pathogen reduction washes' to be used on poultry products. However, there is concern that the European Commission may be clearing the way for approval of these chemical washes, so allowing in cheaper US imports.[7]

The US Department of Agriculture is only predicting a small increase in US exports of poultry products as a consequence of the TTIP (Beckman, et al., 2015). Other research suggests that this may be because US poultry meat imports will still face strong competition from Brazil and Thailand (van Horne & Bondt, 2015), which are the main source of EU poultry meat imports at present. None of the economic modelling studies have examined the impact of the TTIP on egg production.

PORK

EU pork production is twice the size of the US industry (DG Agriculture and Rural Development, 2014), and has stricter animal welfare standards (World Animal Protection/Humane Society International, 2014). The EU market is second only to China's, and US producer lobbies are keen to gain access (National Pork Producer's Council, 2013). However, imports from the US are currently very low because the EU does not allow the marketing of meat containing residues of growth promoters such as ractopamine, due to concerns about its safety for consumers: 60% to 80% of US pigs are treated with this hormone (Strom, 2015).

As well as elimination of the ractopamine ban, US lobby groups are pushing for the complete elimination of tariffs. Historically, the EU has been very protective of the pork industry and so it is more likely to offer a large quota for ractopamine-free pork, which could still encourage the development of a segregated US supply.

Most of the economic modelling does not distinguish pork separately from other meats, but does predict that tariff elimination could lead to declines in the EU's 'white meat' sector, of up to 9% in the Baltic states, as well as "significant extra imports and... new economic difficulties for EU producers" (Bureau, et al., 2014 p 57).

Introduction

Since 2001, the World Trade Organisation (WTO) has been attempting to negotiate a trade agreement between all 164 member nations, a process known as the Doha Round. These negotiations stalled at the end of the 2000s, with the result that bilateral trade agreements proliferated instead. In the last decade, the European Union (EU) signed trade deals with Columbia and Peru, the Ukraine, South Africa and Vietnam, and in 2011 the US government and European Commission set up the 'High Level Working Group on Jobs and Growth'. This group set out terms for a Transatlantic Trade and Investment Partnership (TTIP) between the United States and the European Union, stating that the trade agreement should "eliminate all duties on bilateral trade... phasing out of all but the most sensitive tariffs in a short time frame" (High Level Working Group, 2013). Since then, the TTIP has become an issue of huge political and economic significance, considered so important that it is a matter "on which the success of the current [European] Commission will greatly depend" (Bendini, 2015, p. 4).

Agricultural trade is only one of the sectors under discussion in the TTIP, and accounts for only a small proportion of total trade between the US and EU. In 2014, agricultural products made up just 5.3% of the EU's total exports to the US, and 5.1% of total US exports to the EU (European Commission, 2015a). However, the US takes 13% of EU food and agricultural exports, more than any other nation (European Commission, 2015a). In addition, agriculture has been the cause of several bitter trade disputes, such as those over crop subsidies, the use of bovine growth hormone and the approval of genetically modified organisms. Finally, farming has direct impacts on the environment, landscape and public health, as well as great cultural importance and strong corporate lobby groups, on both sides of the Atlantic.

So, although agriculture is only a very small proportion of the trade under discussion its importance outweighs its size. As a result, the United States has this very clear goal for negotiations: "to help U.S. agricultural sales reach their full potential by eliminating tariffs and quotas that stand in the way of exports." (Office of the United States Trade Representative, 2014).

"The agricultural interests in the United States... are not politically powerful enough to get an agreement passed, but they are certainly powerful enough to stop agreement that's been negotiated."

Tom Vilsack, US Agriculture Secretary
(Reuters, 2015)

"I can't see the TTIP agreement getting through the US Congress if it is not supported by US agriculture."

James Mulhern,
President of the US National
Milk Producer Federation
(Maler & Hutchison, 2015)

TRADE BARRIERS UNDER DISCUSSION

The TTIP negotiations cover two types of government activity that impact on trade. The first are the tariffs and quotas that are applied to imports. The second is the vast range of regulations and procedures that differ between the EU and US, referred to in trade talks as 'non-tariff measures'.

TARIFFS AND TARIFF RATE QUOTAS

Tariffs are taxes or duties that are levied on imports before they are allowed in to a market, usually expressed as a percentage of the value of the product. Tariffs protect domestic producers by raising the price of imports, and are considered a barrier to free trade. A variation of the tariff is the tariff quota, in which a low or zero tariff is set for imports of a product, up to a certain quantity (quota). A further variation is the preferential tariff quota, which sets a low or zero tariff on a quota of imports from a specific country or group of countries. Quotas may be used as a compromise, allowing markets to be opened to imports up a certain level.

'NON-TARIFF MEASURES'

Most trade negotiations focus on reducing tariffs, but the EU and US are also negotiating reductions of 'non-tariff measures'. These are the legal requirements that imported goods must meet before they can be sold in the importing country, and it has been reported that 80% of the TTIP negotiations are about non-tariff measures, while only 20% deal with tariffs (Euractiv, 2015).

In the case of agriculture and food, non-tariff measures broadly fall into two categories (United Nations UNCTAD, 2015). First are the laws and restrictions relating to food safety, protecting plant, animal or human health, preventing the entry of pests and diseases and for the protection of biodiversity. These are known as 'sanitary and phytosanitary measures' (SPS). The other type of non-tariff measures are the technical regulations and requirements that differ between the US and EU, such as food product registration, labelling, packaging, monitoring or transport requirements, collectively known as 'technical barriers to trade' (TBT).

EUROPEAN UNION ACTIONS THAT ARE CONSIDERED BY THE US TO BE UNJUSTIFIED BARRIERS TO TRADE

EU measure	US government opinion
Ban on beef from animals treated with growth hormones	*"not supported by science" (US Trade Representative, 2014, p. 16)*
Ban on pork from animals treated with the growth promoter ractopamine	*"certain trading partners consider factors other than science" (US Trade Representative, 2014, p. 19)*
Traceability requirements for foods derived from genetically modified (GM) crops	*"commercially infeasible" (US Trade Representative, 2014, p. 44)*
Buffer zones to prevent GM contamination of non-GM produce	*"unnecessary and burdensome" (US Trade Representative, 2014, p. 44)*
Labelling of GM foods	*"create[s] technical barriers to trade by wrongly implying that these foods are unsafe" (US Trade Representative, 2014, p. 21)*
Ban on poultry meat treated with 'pathogen reduction' chemical washes	*"[does] not appear to be based on science" (US Trade Representative, 2014, p. 47);*
EU limits on pesticide residues allowed in foods	*"unreasonably low thresholds" (US Trade Representative, 2014, p. 25)*
The EU's lower threshold for somatic cell counts in milk.	*"a quality rather than food safety criterion" (US Trade Representative, 2014, p. 47).*

"This struggle [against TTIP] is about the defence of farming on a human scale both in the US and in the EU, instead of an industrial farming model that destroys both the environment and people's health, in which both animals and workers are exploited"

European Coordination
Via Campesina (ECVC, 2015)

Impact of the TTIP on agricultural trade between the EU and US

The EU and US trade in different types of agricultural and food products. Nearly two thirds of EU exports are of consumer-oriented, processed products (Grueff & Tangerman, 2013) such as wine, whisky and cheese. In contrast, US exports are more dominated by bulk products and animal feed. While the EU has an agricultural trade surplus with the US, amounting to €7.2 billion in 2015, this is largely due to alcohol, which accounted for 45% of export value in 2015 (European Commission, 2016). If alcohol is removed from the figures, the EU's trade surplus with the US falls to just €97 million (see table).

Top 20 EU agri-food exports to the US (2015)	Million Euro	% of total	Top 20 US agri-food exports to the EU (2015)	Million Euro	% of total
Spirits, liqueurs and vermouth	*3,867*	*19.9*	Tropical fruit, fresh or dried nuts & spices	*2,695*	*22.5*
Wine, cider and vinegar	*3,321*	*17.1*	Soybeans	*1,727*	*14.4*
Beer	*1,468*	*7.6*	Spirits, liquers and vermouth	*823*	*6.9*
Waters and soft drinks	*980*	*5*	Food preparations (not specified)	*523*	*4.4*
Cheese	*905*	*4.7*	Wine, cider and vinegar	*509*	*4.2*
Preparations of vegetables, fruit or nuts	*834*	*4.3*	Oilcakes	*432*	*3.6*
Pasta, pastry, biscuits and bread	*820*	*4.2*	Raw tobacco	*365*	*3.0*
Olive oil	*800*	*4.1*	Vegetables, fresh chilled and dried	*329*	*2.7*
Chocolate, confectionary, ice creams	*653*	*3.4*	Pet food	*307*	*2.6*
Food preparations (not specified)	*493*	*2.5*	Oilseeds other than soybeans	*305*	*2.5*
Live animals	*374*	*1.9*	Wheat	*296*	*2.5*
Casein, albuminoidal substances, modified starches	*351*	*1.8*	Preparations of vegetables, fruit or nuts	*271*	*2.3*
Gums, resins and plant extracts	*286*	*1.5*	Casein, other and modified starches	*268*	*2.2*
Vegetables: fresh, chilled, dried	*269*	*1.4*	Bovine meat: fresh, chilled, frozen	*236*	*2.0*
Pork meat: fresh, chilled, frozen	*268*	*1.4*	Fruit, fresh or dried, excl. citrus & tropical fruit	*210*	*1.8*
Unroasted coffee, tea in bulk and mate	*265*	*1.4*	Other animal feed and ingredients	*204*	*1.7*
Essential oils	*215*	*1.1*	Vegetable oils, excluding palm and olive	*200*	*1.7*
Pet food	*213*	*1.1*	Fatty acids and waxes	*172*	*1.4*
Meat preparations	*191*	*1.0*	Essential oils	*166*	*1.4*
Tropical fruit, fresh or dried nuts and spices	*190*	*1.0*	Products, non-attributable	*161*	*1.3*
Remaining products	*2,645*	*13.6*	Remaining products	*1,787*	*14.9*
Total	*19,407*		Total	*11,986*	
	EU Agricultural Trade balance with the US			*7,241*	
	EU Agricultural trade balance, excluding alcohol			*97*	

AGRI-FOOD TRADE BETWEEN THE US AND EU IN 2015 (EUROPEAN COMMISSION, 2016)

The United States is the single largest importer of EU agricultural products (European Commission, 2016), however patterns of agricultural trade with the US vary greatly between EU member states, and for many, especially those outside the EU15, the US is not a major trading partner. The largest agri-food exporters to the US are France, Italy, Spain, the Netherlands and Germany, and the largest importers of US produce are Germany, Spain, the Netherlands and the UK.

Although it is often stated that tariffs are not a major barrier to trade between the US and EU, both sides set tariffs on agricultural imports (see table). As well as tariffs, there are many differences in regulation, safety measures, procedures and monitoring between the US and EU. These are the 'non-tariff measures' that hinder market access, but which are not put in place for that purpose (see Chapter 1). Details of these measures are often difficult to obtain, but countries do have to notify any changes to the World Trade Organisation. A recent analysis found that the US had notified new or changed sanitary and phytosanitary (SPS) measures for 98% of agricultural and food imports, and 'technical barriers to trade' for 87.6% of imports. For its part, the EU had notified new or changed SPS measures for 97.6% of agricultural and food imports and 'technical barriers to trade' for 100% of imports (Bureau, et al., 2014).

Examples of average tariffs by category, 2010 (Bureau, et al., 2014)

Agricultural Product	Price tariff applied by US on EU imports	Price tariff applied by EU on US imports
Dairy products	*20.2%*	*42%*
Sugar	*18.7%*	*24.3%*
'Other food preparations'	*9.4%*	-
'Food preparations with vegetables'	*7.6%*	*18.4%*
'Food preparations with cereals'	*5.8%*	*8.5%*
Vegetables	*4.8%*	*10.6%*
Meat	*4.7%*	*45.1%*

THE PROBLEM OF FARM SUPPORT

The US and EU use very different systems to provide financial support to farming. The US 2014 Farm Bill shifted support mechanisms to a 'risk management' system of subsidised crop insurance. In contrast, around 60% of EU support is in the form of direct income payments, with only 1% insurance (DG Internal Policies, 2014). EU Regulation 1305/2013 requires member states to put in place accredited insurance mechanisms for farmers, but the Commission has commented that "it is doubtful that risk management tools in the EU will be developed [by 2020]" (DG Internal Policies, 2014, p. 16).

Farmers on both sides of the Atlantic receive significant financial support, but European farming organisations argue that the US system encourages price volatility because it protects farmers against low prices, while the EU system leaves farmers more exposed to market price variations (Confederation Paysanne). Reform of farm support mechanisms has been ruled out of TTIP discussions, so US and EU farmers could end up competing in one market but with differing farm support mechanisms.

PREDICTING THE EFFECTS ON AGRICULTURE

Although great claims have been made for the economic benefits of a US-EU trade deal, only a few studies have attempted to model the economic impacts of the TTIP on farming and the food industry (See Table).

The European Commission used a 2013 study by the Centre for Economic Policy Research (Francois, et al., 2013) in support of its claim that the TTIP will bring economic benefits, but the study examined agriculture, fisheries and forestry as a single category, as if they are the same industry. Although it predicts a small increase in output (0.03% for agriculture, forestry and fisheries; 0.06% for processed food production), it is not possible to distinguish the impacts on different farming sectors from this research. In addition, the modelling assumed that tariffs on agricultural produce would be virtually eliminated, which is unlikely given that the US and EU have both maintained protection of important agricultural sectors in other trade deals – notably pork and beef on the EU side, and dairy in the US.

A more detailed analysis was undertaken by the Centre d'Etudes Prospectives et d'Informations Internationales (CEPII) (Fontaigne , Gourdon, & Jean , 2013). This study modelled the impact of removing a proportion of the non-tariff measures affecting agricultural trade, as well as the effects on specific agricultural sectors of removing tariffs. Although the study predicts large increases in the volume of agricultural trade as a result of a TTIP agreement, the benefits would mostly be to producers in the US. So while EU agriculture's contribution to gross domestic product (GDP) is predicted to fall by 0.8%, US agricultural output increases by 1.9%. The authors suggest that the biggest trade volume increases will be for dairy produce, fiber crops and meat, with most of this coming from US exporters. At the same time, the sectors most sensitive to tariff elimination are the US dairy sector and EU meat sectors, particularly beef.

In 2014, the European Parliament commissioned a comprehensive study to model the impacts of the TTIP on agriculture (Bureau, et al., 2014). The researchers modelled various scenarios for tariff reduction and removal of non-tariff measures. In the 'reference scenario' the model predicts that EU exports to the US could increase by 56%, but US exports to the EU could go up by 116%. All the scenarios predict a decline in EU agriculture's contribution to GDP of between 0.3% and 0.7%. The researchers also found that removing tariffs had little impact on trade, whereas reductions in the cost of non-tariff measures caused major changes: for example, modelling a 25% reduction in the EU's non-tariff measures for dairy produce predicted a 2000% increase in US exports to the EU.

The study also examined the impacts at the member state level. It predicts that the Baltic countries could experience a 1.3% fall in output for the entire agri-food sector, and a 9.6% decrease in the pork and poultry sectors (which account for 12.4% of agricultural contribution to GDP in these countries). The study also predicts a fall in the contribution to GDP for fruit and vegetables in Spain and Italy, cereals in Spain and France, and dairy in Benelux, Austria, Germany and the UK. All of these are nationally important sectors.

Study	Assumptions and method	Predictions
The Centre for Economic Policy Research (CEPR) *(Francois, et al., 2013)*	*A "tariffs-only" agreement for agriculture, with a 98% reduction in tariffs.* *Agri-food sector only separated into "Agriculture, Forestry and Fisheries" & "Processed Foods."*	*0.03% increase in output for EU forestry, fisheries and agriculture.* *0.06% increase in output in EU processed foods.*
Centre d'Etudes Prospectives et d'Informations Internationales (CEPII) *(Fontaigne , Gourdon, & Jean , 2013)*	*Elimination of tariffs in agriculture.* *25% reduction in the value-equivalent (AVE) of non-tariff measures.* *Agricultural trade disaggregated into broad categories.* *Alcoholic beverages analysed separately from food*	*168% increase in US agri-food exports.* *Agriculture's contribution to US GDP increases by 1.9% ($6.6 billion at 2007 prices)* *149% increase in EU agri-food exports.* *Agriculture's contribution to EU GDP falls by 0.8% ($5.8 billion at 2007 prices)* *Agriculture's contribution to GDP falls in: Germany (-$1.2 billion); UK (-$1.1 billion); France (-$700 million); 'South Europe' (-$1.1 billion).*
European Parliament *(Bureau, et al., 2014)*	*Several scenarios modelled.* *'Reference' scenario: 25% reduction in non-tariff measures, elimination of all tariffs by 2025.* *Agricultural trade broken down into categories.* *Impacts on member states/groupings of member states*	*EU exports increase by 56%, including beverages, tobacco, dairy and 'other food products' (inc. prepared fish and vegetables, flours, juices).* *US exports increase by 116%, including 'other food products', dairy, fruit and vegetables, poultry meat and cereals.* *Main impact from reduction in non-tariff measures.*
United States Department of Agriculture Economic Research Service (USDA ERS) *(Beckman, et al., 2015)*	*Used more recent (2011) data.* *Did not go to member state level, but disaggregated agricultural trade into 38 categories.* *3 scenarios: removal of all tariffs and quotas; removal of specific non-tariff measures; effect of consumer preference for domestic goods.*	*US exports increase by $5.475 billion* *EU exports increase by $747 million.* *Exports from the US increase in almost every food category.* *EU market price falls in every food category*

WHAT MAY HAPPEN: EVIDENCE FROM CETA AND TPP

Recent free trade agreements may give some indication of how agricultural products will be treated by the US and EU within the TTIP negotiations:

In the EU-Canada deal (CETA) the EU agreed to eliminate 92.2% of agricultural duties, rising to 93.8%, but with exceptions (European Commission, 2014b):

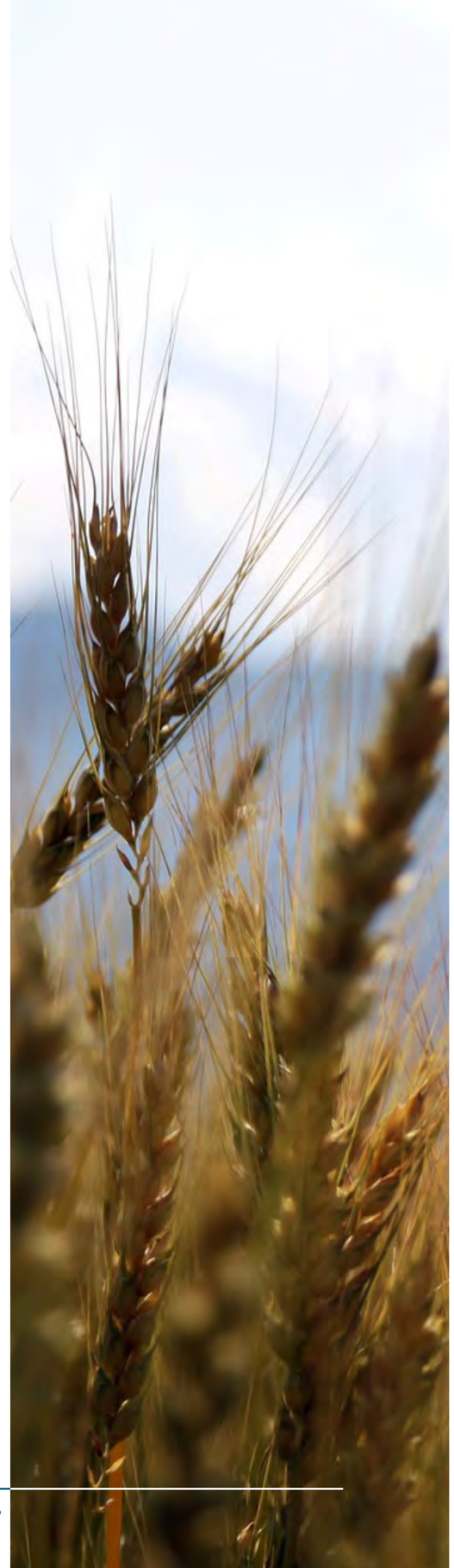
- The 'entry price system' was maintained for apples, citrus fruit, kiwifruit, lettuce and endives, peaches and nectarines, pears, strawberries, sweet peppers, table grapes and tomatoes. (This restricts imports that enter the EU below a certain price level);
- Quotas were set for zero tariff imports of beef, pork and canned sweetcorn;
- Chicken and turkey meat, eggs and egg products were excluded from the agreement.

In the Trans-Pacific Partnership agreement, the US agreed to eliminate tariffs on almost all agricultural imports from partner countries, but set quotas for imports of sugar and dairy produce. (USDA Foreign Agricultural Service, 2015).

While the EU has maintained protections on a wider range of produce, it is very noticeable that the US strongly defended its dairy industry within the TPP. Dairy is being promoted by the European Commission as an important area of trade gain within the TTIP, but this will not be achieved if the US takes the same position as it did with its Pacific trading partners.

The most recently published research comes from the US Department of Agriculture's Economic Research Service (Beckman, et al., 2015). Although this study did not examine impacts at the member state level, it does provide the most detailed information by farming sector, breaking agricultural trade into 38 categories. The modelling examined the removal of tariffs, but also the elimination of various non-tariff measures that have been identified by the USDA as being of high cost to the US (see table). The USDA predicts that, if removed, there will be major increases in US exports, with consequent falls in EU market price and production.

Some of the USDA modelling seems to be over-ambitious because the researchers assume that the EU will remove all of the non-tariff measures identified as being costly to the US. This is despite the measures having been put in place for consumer protection, and the EU maintaining them in the face of trade disputes. Eliminating all of these measures would be an enormous concession by the European Commission and unlikely to be approved by the European Parliament or member states.



Some of the 'controversial' non-tariff measures identified by the USDA (Arita, Mitchell, & Beckman, 2015)

Non Tariff Measure	Applied to	Cost expressed as a tariff-equivalent (%) calculated by (Arita, Mitchell, & Beckman, 2015)	USDA prediction for removal (Beckman, et al., 2015)
EU restrictions on meat produced using growth hormones and certain antibiotics	*Beef*	*23-24%*	*US imports increase: $1.861 billion.* *EU production: - 1.52%*
EU restrictions on meat produced using growth promoters and other SPS measures	*Pork*	*81%*	*US exports increase: $2.394 billion* *EU production: - 2.97%*
EU restrictions on meat treated with pathogen reduction treatments (chorine washes etc)	*Poultry*	*102%*	*US exports increase:* *$33 million* *EU production: - 0.08%*
EU authorisation and regulation of foodstuffs produced from GM crops	*Soy* *Maize*	*17%* *79%*	*US soy exports increase: $861 million* *US maize exports increase: $361 million*
EU maximum residue levels for pesticides and other substances	*Vegetables* *Fruit*	*53%* *35%*	*US vegetable exports increase: $466 million* *EU production: - 0.04* *US fruit exports increase:* *$187 million*
US import approvals process for new fruit and vegetables (pest risk assessment)	*Vegetables* *Fruit*	*37%* *45%*	*EU vegetable exports increase: $613 million* *EU production: - 0.04* *EU fruit exports increase:* *$495 million* *EU production: + 1.13%*

Leaving aside these non-tariff measures, the USDA model examines what will happen if all tariffs and import quotas are removed from agricultural trade. The study predicts a $5.475 billion increase in US exports, but only a $747 million increase in exports from the EU to the US. US exports increase in almost every food category, with corresponding EU price falls. EU output falls for rice, wheat, coarse grains (including maize), fruit, nuts, sugar beet, 'other crops', 'bovine', 'hogs', beef, pork, 'other meats', whey, butter, processed sugar, processed rice and processed feed (See table 4 for selected examples). EU export increases are modest and even when EU production goes up, the price on EU markets still falls. This includes the food sectors (such as cheese, fruit and vegetables) regarded as an 'offensive interest' for the EU.

Selected examples of modelling predictions for the removal of all tariffs and TRQs in EU-US agri-food trade (Beckman, et al., 2015)

Food category	Increase in US exports to the EU (US$)	Increase in US exports to the EU (%)	Change in EU market price (%)	Change in EU production (%)
Beef	*1.467 billion*	*645*	*-0.25*	*-1.11*
Cereal preparations	*436 million*	*44*	*-0.15*	*0.05*
Prepared fruit & veg	*372.5 million*	*60.85*	*-0.15*	*0.05*
Pork	*322 million*	*181*	*-0.32*	*-0.01*
Butter	*151 million*	*206*	*-2.33*	*-0.86*
Wheat	*114 million*	*23.22*	*-0.33*	*-0.28*
Paddy rice	*98 million*	*444.39*	*-0.69*	*-2.32*
Fruits	*94 million*	*29.67*	*-0.3*	*-0.08*
Whey	*34 million*	*435.08*	*-0.68*	*-0.06*

Food category	Increase in EU exports to the US (US$)	Increase in EU exports to the US (%)	Change in EU market price (%)	Change in EU production (%)
Cheese	*325 million*	*30.44*	*-0.3*	*0.52*
Vegetable oil	*95 million*	*10.81*	*-0.11*	*0.09*
'Other crops'	*70.6 million*	*9.35*	*-0.28*	*-0.06*

HOW RELIABLE IS THE MODELLING?

By necessity, all of the modelling studies have been forced to make educated guesses about tariff reduction and elimination of non-tariff measures because the TTIP negotiations are being held in secret. In this respect, the models represent possibilities, rather than predictions. In addition, the sheer complexity of agricultural trade means that "it is impossible to carry out a detailed and accurate analysis of all issues and all sectors in the same framework" (Bureau, et al., 2014, p. 33)

All of the models use the Global Trade Analysis Project's (GTAP) static computable general equilibrium (CGE) model, based on the GTAP database. The use of this type of modelling has been criticised due to the economic assumptions embedded in the models (Raza, et al., 2014), and questions have been raised as to whether they can accurately model the complexity of agricultural markets and non-tariff measures. For example, the authors of the European Parliament report state that they cannot differentiate between the trade in hormone-free beef and hormone-treated beef. They also state that in the cases of sugar and biofuels, "policies in these sectors are so complex in practice that they cannot be accurately modelled in a general-purpose framework." (Bureau, et al., 2014, p. 33)

The European Parliament commissioned the Centre for European Policy Studies to evaluate the CEPR and CEPII modelling. They concluded that the CGE model is 'state of the art' and the best available at present, but it does have drawbacks, including an unrealistic analysis of labour impacts. While broadly supportive of the approach used, they pointed out that the TTIP differs from other free trade agreements because there is so much emphasis on regulatory harmonisation and removal of non-tariff measures, and it is "extremely difficult to address them properly in any economic model and very few examples exist where this has been attempted." (Pelkmans, et al., 2014, p. 3)

Focus on Geographical Indications

A Geographical Indication (GI) means that a product can only be produced in the area traditionally associated with it; champagne in the Champagne region of France, Parma ham in the Parma region of Italy etc. Although GI protection was included in the 1994 Trade-Related Aspects of Intellectual Property Rights (TRIPs) agreement, an international mechanism could not be agreed and the US does not recognise them in law.[8] As a result, there are two main areas of conflict about GI produce within the TTIP negotiations. Firstly, how GIs should be protected and, secondly, which names should qualify for protection.

Protection in the US can be sought via certification or collective marks, but GIs are treated as a subset of the trademark system – meaning that protection is based on difference in the product, not the location of production. It is also up to the owner to defend the trademark, by taking legal action against infringements. In contrast, the EU considers that GIs require a distinct and separate system of protection (set out in Regulation 1151/2012), which is operated by the state. Produce cannot be labelled with the GI name unless it is made in a specific area, and even words like 'style' or 'imitation' are not allowed. The EU has attempted to extend its system of GI protection through its various bilateral trade agreements, but there is major conflict within TTIP negotiations as to whether the EU or US approach should be the dominant legal form (O'Connor, 2015).

"GIs maintain jobs in rural areas / the countryside"

"GIs help small farmers"

"Many GIs are produced in rural areas, often poor ones"

"small farmers producing for a GI... have an alternative to selling to big buyers and the mass market."

(DG Agriculture and Rural Development, 2015d)

Article 24 of the TRIPs agreement states that products should not be given GI protection if the name has become "generic", such as cheddar cheese. Exactly what counts as generic is another area of contention between the EU and US. When the EU negotiated its 2014 trade agreement with Canada (the Comprehensive Economic and Trade Agreement - CETA), it gained protection for 173 product names and required new Canadian producers of asiago, feta, gorgonzola and Muenster cheeses to add a descriptor such as 'style', 'type' or 'imitation' to their labels (Sinclair, Trew & Mertins-Kirkwood, 2014, p. 62). This caused outrage among US producer lobbies and a group of 177 congressmen called for the US to reject any form of GI protection within the TTIP, stating that the EU was attempting "to carve out exclusive market access for its own producers" (US Congress, 2014). Despite this, it is reported that the Commission has a list of 200 GI denominations that it wants protected within the TTIP, including 75 cheeses (Inside US Trade, 2014).

WHO BENEFITS?

The European Commission has argued that strong GI protection within the TTIP is vital for European farmers, who it acknowledges will be at a competitive disadvantage to US producers (Hogan, 2015). However, analysis of the Commission's approach suggests that it will not benefit the majority of European farmers, even those who are producing for GI foods and wines.

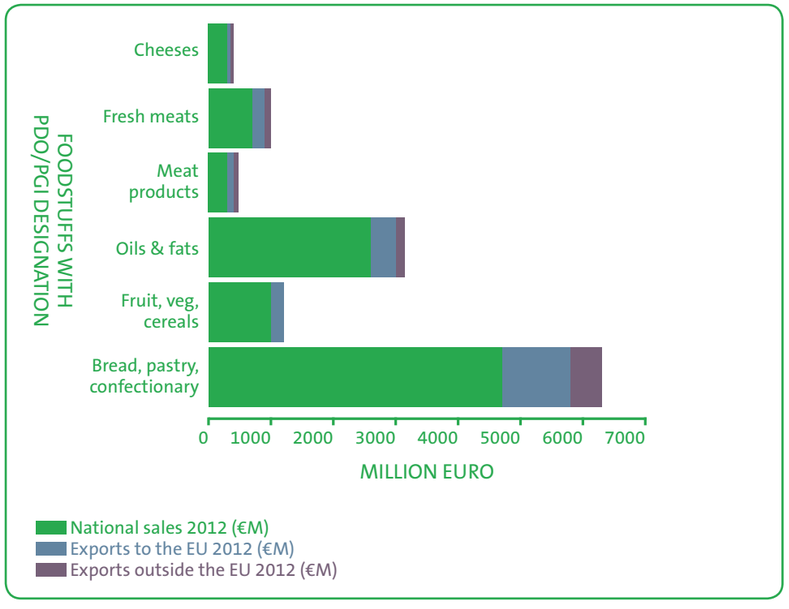
In 2015, there were 1308 registered GIs for food products in the EU (DG Agriculture and Rural Development, 2015a), 2883 registered GIs for wines (DG Agriculture and Rural Development, 2015b) and 332 for spirits (DG Agriculture and Rural Development, 2015c). According to the Commission, sales of these GI foods and wines amounted to €54 billion in 2010 (Chever, et al., 2012), which was 5.7% of the total value of food and wine sales in the EU (€956 billion). However, GI products make up 15% of EU food and wine exports (€11.5 billion), and the US is the largest importer, taking €3.4 billion of GI produce in 2010.

Although these figures appear to support the European Commission's heavy emphasis on GIs with the TTIP negotiations, their own data suggest that this strategy may not achieve nearly as much as is claimed. A survey for the Commission found that wines and spirits make up 90% of the export value of GI produce, with foodstuffs accounting for less than 9% of export sales (Chever, et al., 2012). Three member states produced 86% of the GI products exported outside the EU: France (40%), the UK (25%) and Italy (21%), and a small number of GIs accounted for a high proportion of this trade: champagne, cognac, scotch whisky, Grana Padano and Parmigiano Reggiano.

In fact, domestic and EU markets are far more important routes for the sale of GI foodstuffs (see graph). Even in the case of parma ham, which is exported outside the EU, a recent survey found that 60% of producers only supplied the Italian market, and exports were dominated by larger, commercial production companies (Dentoni, Menozzi, & Capelli, 2012).

"[The EU] want to protect that high value added proposition. Our concern is that in doing so, it will make it difficult if not impossible for products that have been marketed under that same name for decades now, marketed under what we believe is a relatively generic term, [to enter] the market."

Tom Vilsack, US Secretary for Agriculture (Michalapoulos, 2015)



Source: (DG Agriculture and Rural Development, 2015f)

A NARROW LIST

The Commission's approach in previous trade agreements has been to negotiate protection for a limited number of specific GI products. Only 14 member states were even represented in the 173 products on the CETA list, and just six GI products were from countries outside the EU15. The provisions of the CETA agreement specifically state that any additions to this list of protected GIs will be at the discretion of the CETA joint committee, and a GI product being registered in the European Union "shall not in principle" mean that it would be added to the protected list (Article 20.22 (2). So, only a very small proportion of EU registered GIs seem likely to be protected using this approach. As Italian producer organisations have pointed out, most Italian GI products were not included in CETA and so their producers will receive no benefit from this type of deal (Morgan, 2015).

US lobby groups are strongly resisting EU efforts to get protection even for this small number of GI products, but if a protected list is agreed then the benefits to EU producers will still be partial and restricted, especially for those in countries outside the EU15. The European Commission's approach to Geographical Indications in the TTIP negotiations won't help the majority of farmers facing competition from US imports, or even most of the European farmers and producers who make GI foods.

THE UNITED STATES' POSITION

The recently agreed Trans-Pacific Partnership (TPP) gives a strong indication of the US government's preferred option. The TPP protects GIs via trademarks (Article 18.19), extends the principle that Geographical Indications are private intellectual property rights (rather than under state protection), and includes a provision that GIs cannot be applied for if the name is considered generic in the importing country (Article 18.32.1c) (US Trade Representative, 2015). All these provisions run counter to the EU approach, but they allow the US to argue that the TTIP should match what it has already agreed with other trading partners.

Impacts on Beef Production

Although some American farmers rear their cattle on pasture, the majority of commercial beef operations use feedlots, in which cattle are kept contained and fed on grain-based feed mixtures (USDA Economic Research Service, 2012). In addition, much of US beef farming is controlled by very large companies; in 2012, 51% of calf and cattle sales came from just 2% of feedlot operations, those with more than 1,000 head of cattle (USDA, 2012a), and three quarters of US beef goes to only five meatpacking companies.[9]

Beef production in the EU has a different structure and can be divided into two main types of farming. Two thirds of EU beef is a by-product of the dairy industry, and most dairy beef cattle are fattened with silage (fermented grass or maize), rather than on pasture. Dairy beef production is not directly linked to the beef price; although low beef prices impact dairy farmers, production also depends on changes to the size of the dairy herd, which is related to the milk price.

Beef-only systems (often called suckler beef) tend to be small-scale, low-income farms carrying out traditional, extensive grazing, often in environmentally sensitive areas. 94% of suckler beef farms are found in the EU-15 countries, particularly Ireland, Spain, France, Italy and the United Kingdom (European Commission, 2014a). Recent changes to the Common Agricultural Policy allow member states to divert a proportion of funding to support beef farmers (known as 'voluntary coupled support'), but countries across the EU have chosen to divert different amounts, suggesting that the support given to beef farmers will be more variable in future.

An analysis by the UK's Agriculture and Horticulture Development Board (AHDB, 2013a) suggested that, as a result of the changes, support as a proportion of output price could range from 28% to 150% in different member states and for different sizes of beef-only farm. So the income of beef farmers in some member states will be protected, while in others beef farmers will be highly sensitive to changes in the market price.

COMPETITIVENESS OF US BEEF ON EU MARKETS (DEBLITZ & DHUYVETTER, 2013)

Prices for beef in the EU are up to €150 per 100kg higher than in the US. Beef production costs are highly variable across the EU, particularly feed and animal costs, but a study using 2010 data found that the costs for medium-sized US beef feedlots were lower than for almost all types of European beef farm. Even including transport, US beef was less costly than EU beef by up to €100 per 100 kg.

Without using hormones or beta agonists, US beef costs rise to match those of the most efficient EU farms, but are still lower than beef farms in many member states. The higher price in the EU would also be an incentive to export. US beef exporters are expected to focus on high value cuts, because EU dairy herds can meet demand for cheaper beef. In addition, US imports are predicted to displace domestic EU production, rather than beef imports from other countries, because US beef would be of a similar quality to that produced in Europe, but at a lower price.

FINLAND
550 EU suckler beef farms
€56M Voluntary Coupled Payments

SWEDEN
1,410 EU suckler beef farms
€91M Voluntary Coupled Payments

POLAND
2,280 EU suckler beef farms
€172M Voluntary Coupled Payments

CZECH REPUBLIC
620 EU suckler beef farms
€24M Voluntary Coupled Payments

AUSTRIA
680 EU suckler beef farms
€12M Voluntary Coupled Payments

GERMANY
1,860 EU suckler beef farms

DENMARK
650 EU suckler beef farms
€24M Voluntary Coupled Payments

UK
6,060 EU suckler beef farms
€45M Voluntary Coupled Payments

IRELAND
15,720 EU suckler beef farms

BELGIUM
1,430 EU suckler beef farms
€83M Voluntary Coupled Payments

LUXEMBOURG
100 EU suckler beef farms

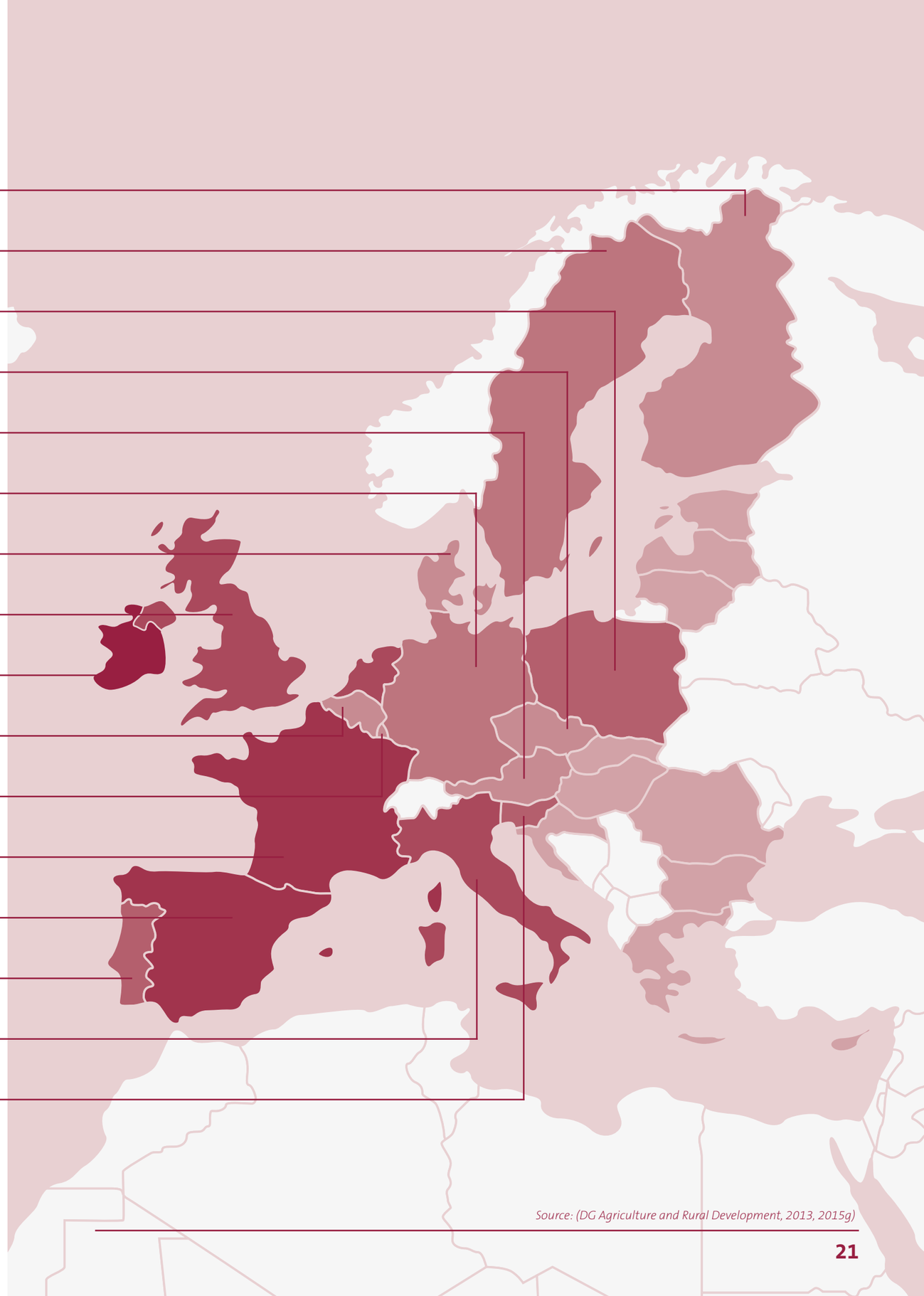
FRANCE
10,290 EU suckler beef farms
€652M Voluntary Coupled Payments

SPAIN
12,080 EU suckler beef farms
€228M Voluntary Coupled Payments

PORTUGAL
3,060 EU suckler beef farms
€60M Voluntary Coupled Payments

ITALY
7,230 EU suckler beef farms
€108M Voluntary Coupled Payments

SLOVENIA
2,050 EU suckler beef farms
€4M Voluntary Coupled Payments



Source: (DG Agriculture and Rural Development, 2013, 2015g)

CURRENT TRADING PATTERNS

In 1989, the EU brought into effect a ban on the production and import of beef from animals treated with growth-promoting hormones[10], which caused a long-running trade dispute with the US. This was only resolved in 2009, when the EU agreed to open a zero-tariff import quota for 200,000 tonnes of hormone-free beef, in return for reductions in US sanctions (World Trade Organisation, 2009). This quota has since been extended to other countries and, as of 2014, the US was granted 48,500 tonnes of zero tariff beef quota.[11] However, between 2010 and 2013, the US only exported an average of 22,400 tonnes per year to the EU, well below its allowance (European Commission, 2015b). This is probably because most US beef is not hormone-free; a survey in 2013 estimated that 84% of cattle in US feedlots are treated with growth hormones (Deblitz & Dhuyvetter, 2013). At present, the market for hormone-free beef is not large enough to encourage the development of significant US supply, but this could change if the TTIP opens up the EU market.

TTIP AND GROWTH PROMOTING HORMONES

The Commission's public documents about the TTIP state that "the EU will keep its restrictions on hormones or growth promoters in livestock farming" (DG Trade, 2015). However, in 2015 it was reported that EU Agriculture Commissioner, Phil Hogan, had spoken at a US Department of Agriculture conference and told delegates that the EU was prepared to discuss all agricultural market access barriers "including restrictions on beef, pork and poultry production practices." (US Meat Export Federation, 2015).

PREDICTIONS ABOUT THE IMPACT OF THE TTIP

The different modelling studies all agree that the EU beef sector is very vulnerable to tariff cuts. The CEPII model predicts a $3.2 billion increase in US 'meat' output, with consequent falls in output across the EU totalling $2.8 billion (although not all of this is beef) (Fontaigne , Gourdon, & Jean , 2013, p. Appendix).

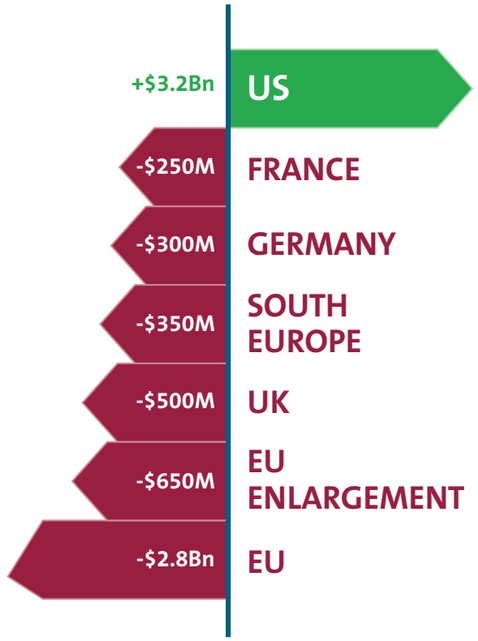
The study for the European Parliament predicts increases in the EU-US beef trade of 300% - 400%, but no detail is given about the impact on EU beef farming. The authors state that "Beef is a product for which... models hardly provide reliable results" (Bureau, et al., 2014, p. 55), but they do give strong warnings about the consequences of the TTIP for the beef sector: "with no import barrier from a competitive and elastic source of supply such as that of the US, it is conceivable that imports could reach several million [tonnes]". If this happens, the majority of the contraction in EU beef production is expected to come from the price-sensitive suckler beef farms "with potentially far-reaching social and environmental consequences for some EU regions." (Bureau, et al., 2014, p. 49)

The USDA report predicts that the removals of tariffs and import quotas would lead to $1.5 billion of US beef entering the EU market, with a 1.11% contraction in EU beef production. If 'non-tariff measures' (the beef hormone ban) were also resolved, the USDA predicts an increase of $1.86 billion in US beef exports, and a 1.52% contraction in the value of EU beef farming. However, these figures are difficult to interpret because the EU is very unlikely to eliminate all tariffs and quotas, or agree to the import of hormone-treated beef.

INCREASING THE IMPORT QUOTA FOR US BEEF

It is reported that the EU has placed beef in the category of 'sensitive products' for the TTIP negotiations (Interbev: Interprofession betail et viande., 2015). This means the EU could negotiate for a phased opening of the beef market, or continued quotas or even exclusion from the trade agreement. In the CETA trade agreement, the EU granted Canada a zero-tariff import quota of 50,000 tonnes of beef (rising to 67,500 tonnes), so it may offer the US a larger import quota in the TTIP. The US beef industry is much larger than Canada's, so the quota is expected to be significantly higher (Bureau, et al., 2014). Reportedly, the US is pushing for 5 to 6 times the quota granted to Canada.

Prediction for meat production from CEPII



Even without the full elimination of tariffs, the impact of the TTIP on EU beef farmers could be serious. If the US is granted a large zero-tariff import quota, this might encourage the growth of the segregated US hormone-free beef supply chain. Hormone-free beef already sells at a premium in the US, and the French producers' association Interbev has suggested that US exporters are seeking to expand into the EU's high-value sirloin beef market (Interbev: Interprofession betail et viande., 2015). According to industry sources, most imports of US beef are chilled high quality hind quarter cuts, directly competing with the high quality beef produced by European suckler-beef farmers.

It is possible that the total beef quota allocated to Canada and the US through CETA and the TTIP could amount to 200,000 tonnes. European producer organisations warn that the total EU market for high quality sirloin beef is only estimated at between 400,000 tonnes (Interbev: Interprofession betail et viande., 2015), and 700,000 tonnes (Irish Farmers Association, 2015). So US and Canadian imports would take a very large slice of this high value beef market away from EU farmers, devastating suckler beef production.

According to French producer organisation Interbev, the price falls resulting from US and Canadian imports could lead to a *"40% to 50% drop in revenue for French and European cattle farmers"* and *"the disappearance of this sector as a whole"* in France.

(Interbev: Interprofession betail et viande., 2015)

A recent economic modelling study examined the impact on Irish beef farming of the US gaining a beef import quota of either 50 000 tonnes or 75 000 tonnes (Thelle, et al., 2015) in the TTIP. This is in line with many predictions for the outcome of negotiations, and so is probably the most realistic scenario of any economic model. Beef farming is the largest agricultural sector in Ireland, worth €2 billion and with more than 100,000 farms. 500,000 tonnes of Irish beef is sold to the rest of the EU every year, but average farm incomes in 2014 were just €10,000 to €15,000, and the Irish government estimates that 40% of farms are economically vulnerable (Irish Farmers Association, 2015). The modelling study predicts that if the US is granted a 50 000 tonne quota, Irish beef production will increase by 2.3% but its total value will fall by 1.7% (~ €34 million) as prices drop. If a 75000 tonne quota is granted, Irish beef production will fall by 0.8% and its value will fall by 3.2% (~ €64 million). The authors commented that "if US beef exports to the EU market are centred predominantly around high-value cuts, the results presented here may underestimate the...contraction in output" (Thelle, et al., 2015, p. 64).

Beef is a highly sensitive sector, for which the TTIP is clearly a serious threat despite EU subsidies. Not enough investigation has been conducted on the impacts in different countries.

The EU is likely to offer a larger import quota to the US, rather than eliminate tariffs altogether, but this would still have severe impacts on suckler beef production.

Impacts on Dairy Production

The EU is the world's largest producer of dairy produce, and exports an average $1.1 billion of produce to the US every year. In contrast, the US exports just $87 million of dairy produce to the EU. Both the US and EU use quotas and high tariffs to restrict dairy imports; according to the European dairy trade body Eucolait, most US tariffs on dairy produce are so high that they "make imports practically impossible", while "EU tariffs do not enable regular imports" (Eucolait, 2012). On top of this, both the US and EU use regulations and food safety measures that the other considers to be trade restricting, including:

- US Dairy Import Assessment fees,
- the US 'Pasteurised Milk Ordinance' and Grade A regulation,
- US standards of identity for dairy products that are not in line with international standards,
- the EU ban on recombinant bovine growth hormone in milk,
- EU somatic cell count requirements (<400,000/ml), which are stricter than US standards (<750,000/ml) (Eucolait, 2012)

The dairy trade is very complex because produce ranges from liquid milk, to globally traded commodities such as milk powders, butter and cheese, through to yoghurts and high value cheeses protected by Geographical Indication. In addition, enterprises range from multinational businesses, such as Nestle and Danone, to individual dairy farmers who are often sole traders. Farmers generally get the best price for liquid milk, but on average only 30% of EU milk production is sold for drinking, with the rest going into processing. The price farmers receive for their milk is linked to world market prices for commodities such as butter and cheese, and this is true even for liquid milk for drinking (EFRA Committee, 2016).

Changes to the Common Agricultural Policy, particularly the ending of milk quotas, mean that dairy farmers across the EU are already experiencing major economic shifts, with falling prices and direct payment subsidies predicted to account for less than 10% of the output price under the new regime (AHDB, 2013a. p 13), while risk management measures remain underdeveloped. In contrast, European farm groups argue that the US 'insurance style' system protects US dairy farmers from the impact of falling prices and can encourage over production when prices are low, adding to world market volatility (Irish Creamery Milk Suppliers Association, 2014) (Confederation Paysanne).

PREDICTIONS ABOUT THE TTIP

Although the US and EU both protect their dairy productions with relatively high tariffs, the economic modelling studies assume that tariffs will be eliminated and there will be a 25% reduction in non-tariff measures. For this reason the predictions should be treated with caution. The CEPII model (Fontaigne , Gourdon, & Jean , 2013) and the European Parliament model (Bureau, et al., 2014) do not distinguish between the different sectors of dairy trade, but both predict that by 2025 US dairy exports will increase by between $5.2 billion and $5.4 billion, although the authors state that these findings should be treated with caution because of uncertainties about the effect of removing non-tariff measures (Bureau, et al., 2014. p38). The studies predict that EU exports will increase by much less - $2.4 billion or $3.7 billion. Despite the huge increases in the amount of trade in both directions, the dairy industry on both sides of the Atlantic gain little in terms of value added, and in a number of EU member states the value of the industry declines.

Predicted changes in dairy production, by country

Modelling Study	Predicted change in dairy's contribution to GDP, by country	
European Parliament *(Bureau, et al., 2014)* *NB Figures for countries showing rises in output were not presented*	*US*	*+1.1%*
	Austria	*-3.5%*
	Benelux	*-2.7%*
	France	*-1.2%*
	Germany	*-1.9%*
	Ireland	*-1.4%*
	UK	*-2.6%*
CEPII *(Fontaigne, Gourdon, & Jean, 2013)*	*US*	*+0.4% ($100M)*
	Germany	*-1.5% ($300M)*
	UK	*-2.2% ($300M)*
	France	*+0.6% ($100M)*
	'South Europe'	*+2.9% ($100M)*
	'North Europe'	*-2.9% ($200M)*
	'Enlargement'	*+0.4% ($100M)*

The USDA model is the only study to differentiate the sectors of dairy trade, and predicts that US exports will increase across nearly all dairy sectors, while EU exports will only rise significantly for cheese, with modest gains in other areas. The USDA claims that this is because the EU already benefits from lower US tariffs, but the European Parliament report points out that the major barriers to EU exports are non-tariff measures: "actual export creation in this sector is likely to depend strongly, in practice, on the disciplines agreed upon in relation to geographical indications, as well as the sanitary measures concerning products made out of unpasteurised milk" (Bureau, et al., 2014, p. 37).

Changes to US-EU dairy trade from elimination of all trade barriers, as predicted by USDA

Dairy Sector	Change in US exports (US$)	Change in EU exports (US$)
Whey	*+$34 million (433%)*	*+$0.11 million (7%)*
Powdered milk	*+$21.8 million (908%)*	*+$0.29 million (4.7%)*
Butter	*+$151 million (207%)*	*+$4.1 million (12%)*
Cheese	*+$76 million (997%)*	*+$329.1 million (31%)*
'Other dairy products'	*+$32.5 million (126%)*	*+$4.28 million (4.4%)*
Raw milk	*-0.01 million (-4.6%)*	*+$0.14 million (5%)*

USDA predictions on dairy market price and output, assuming removal of all trade barriers

Dairy Sector	US output change (%)	US market price change (%)	EU output change (%)	EU market price change (%)
Whey	*0.05*	*0.24*	*-0.26*	*-0.79*
Powdered milk	*-0.30*	*0.24*	*0.05*	*-0.38*
Butter	*2.73*	*0.23*	*-0.82*	*-2.44*
Cheese	*-1.11*	*0.16*	*0.60*	*-0.41*
'Other dairy products'	*0.00*	*0.24*	*0.16*	*-0.31*
Raw milk	*-0.14*	*0.31*	*0.17*	*-0.69*

Because the farm gate price for milk is linked to the market price of dairy commodities, such as butter, cheese and milk powders, European farming groups have raised concerns about the impact of the TTIP on farmer incomes (International Dairy Magazine, 2014). Taken together, the various models suggest that the TTIP could lead to lower prices for dairy farmers. In response to the CEPII report, one Irish dairy farmers' group expressed the fear that "[i]f all of this reduction in value added is absorbed by farmers, which is likely to be the case, farmers' incomes would actually decrease despite the increase in exports to the US under TTIP." (Irish Creamery Milk Suppliers Association, 2014) Both the European Milk Board and Confederation Paysanne have warned that the trade deal could exacerbate the structural changes already concentrating milk production towards more 'efficient' EU producers and countries, leading to regional concentration of dairy production (European Milk Board, 2014) (Confederation Paysanne).

The European Commission appears to be placing great emphasis on getting protection for a list of registered Geographical Indications, a large proportion of which are expected to be cheeses. While there is fierce lobbying against GIs in the US, European dairy organisations are by no means united and they have raised concerns about the European Commission's approach to negotiations. The Irish Co-operative Organisation Society has commented that "the fear for us... is that the EU team will sacrifice our interests in getting rid of tariffs and other barriers to trade for Irish product in return for a deal with these GI cheeses." (ICOS, 2015)

US DAIRY DEFENCES

In the recently agreed Trans-Pacific Partnership between the US and other Pacific nations, dairy tariffs and quotas were a major source of difficulty during the negotiations. At one point they were seen as a key hurdle to gaining agreement (Dougherty, 2015). The US did not appear to make any concessions on technical issues related to imports (USDA Foreign Agricultural Service, 2015), nor did it eliminate tariffs on imports from its key competitors - Canada, New Zealand and Australia. Instead, the US negotiated import quotas for each of these countries. Where tariff elimination was agreed for a product, such as milk powder from Australia, safeguards were put in place for 35 years, allowing the US to re-impose duties if Australian imports go above an agreed threshold.

The defensive approach of US negotiators led dairy organisations in Australia and New Zealand to complain that they gained very little in the TPP, blaming the "entrenched protectionism" of the US dairy sector (Astley, 2015).

The EU dairy industry is heterogeneous, with conflicting interests in the TTIP. Dairy farmers see it as a particular threat, and there appears to be a feeling that the interests of some dairy sectors are being sacrificed in negotiations.

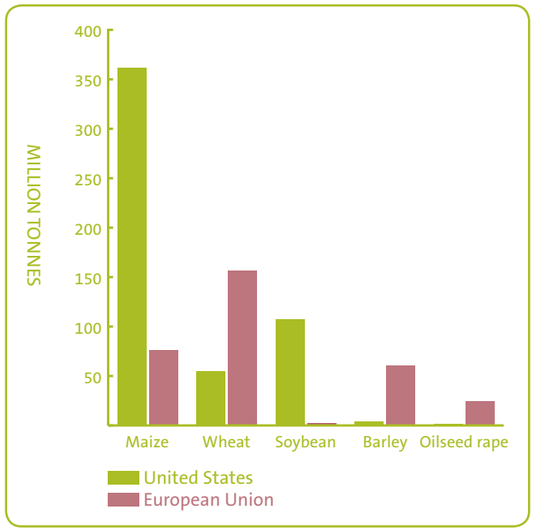
In contrast, the US dairy lobby is influential and the US government highly protective of the sector.

The broad message being presented by the Commission - that the EU will increase trade in dairy – masks the fact that farmers could end up being paid less per litre of milk, even as exports increase. This could exacerbate the structural changes already leading to concentration and intensification of dairy farming.

The economic models predict a contraction in output in member states – particularly in Austria, Benelux and the UK.

Impacts on Arable Crops

Both the EU and US are major producers of cereal crops and oilseeds, however they differ in their most important crops (see graph). Direct comparisons are not straightforward, but it is considered that US farmers have lower costs of production for both maize and wheat (Bureau, et al., 2014).



Source: (International Grains Council, 2016) (NASS, 2015)

Although the US is a major exporter of grains, oilseeds and their derivatives, trade with the EU is fairly minor. The US is not an important destination for any EU cereals, and although 22% of EU 'common' wheat imports come from the US, this only amounts to 670,000 tonnes per annum (compared to total EU wheat production of 156 million tonnes). Similarly, only 4% of EU maize imports are sourced from the US (DG Agriculture and Rural Development, 2015e), due to concerns about GM crops. Trade in oilseed crops is more important, and between 2009 and 2013 the EU sourced 24% of soybean imports from the US (2.9 million tonnes) and 4% of soymeal (900,000 tonnes) (DG Agriculture and Rural Development, 2015e).

The EU-US trading relationship has been soured by differences of opinion on food safety and environmental protection, particularly with respect to the approval of genetically modified crops. Not only are there differences in legislative approach, such as the EU's distinction between risk assessment and risk management, but there is also strong consumer resistance to GM crops in Europe, meaning that GM grain and oilseed imports are restricted to use in animal feed, biofuels and industrial purposes. Although the European Commission has stated that the TTIP will not affect EU legislation or procedures on GM crops, there is evidence that this is a key 'offensive interest' for the US government - the US Department of Agriculture claims that the EU's precautionary approach to GM crop and food approvals cost the US maize industry $600 million in lost trade (as of 2011), and the US soy industry $1.1 billion (Arita, Mitchell, & Beckman, 2015), and the US Foreign Agricultural Service has stated that "long delays in reviews of biotech products" "must... be addressed in the negotiations" (USDA Foreign Agricultural Service, 2015b). The US government's Trade Representative has explicitly demanded better market access for GM products, stating that GM regulations and procedures act as "substantial barriers to trade" (US Trade Representative, 2014, p. 43). However, if the US did achieve some kind of success in 'harmonising' GM approvals in the TTIP, this would not address the main constraint, which is the rejection by European consumers of GM foods.

WHEAT

EU wheat production is heavily protected at present, with import tariffs rising or falling depending on world market prices, buffering farmers from fluctuations. EU tariffs on grain imports vary from 40%-90% and there are restrictions on imports of low quality wheat for animal feed, with US imports capped at 592 000 tonnes.

US wheat lobby groups are pushing for EU tariffs and import caps to be removed, (US Wheat Associates / National Association of Wheat Growers, 2013), and in the recently agreed deal between the EU and Canada, tariffs on Canadian wheat were eliminated. According to the report for the European Parliament, "in this sector, a trade agreement may lead to large EU imports from the US" (Bureau, et al., 2014, p. 57).

PREDICTIONS FROM MODELS

All of the models agree that tariff elimination within the TTIP will have a negative impact on EU cereals production, with declines of up to 6%. The CEPII model predicts that the value of cereals to the US economy will increase by $1.2 billion, with an equivalent decline in the EU. The European Parliament study predicts an increase in US cereals exports of $250 million if tariffs are eliminated, but $2.9 billion if 'non-tariff measures' are reduced by 25% (in other words, harmonisation of procedures for GM crops). In the case of wheat, the USDA model predicts an increase in US wheat exports of US$109 million (22%), but price and production falls in both the US and EU (see table).

"It is likely that more open trade with the US would be detrimental to primary producers in the cereals and oilseeds sector."

UK Agriculture and Horticulture Development Board (AHDB, 2013b)

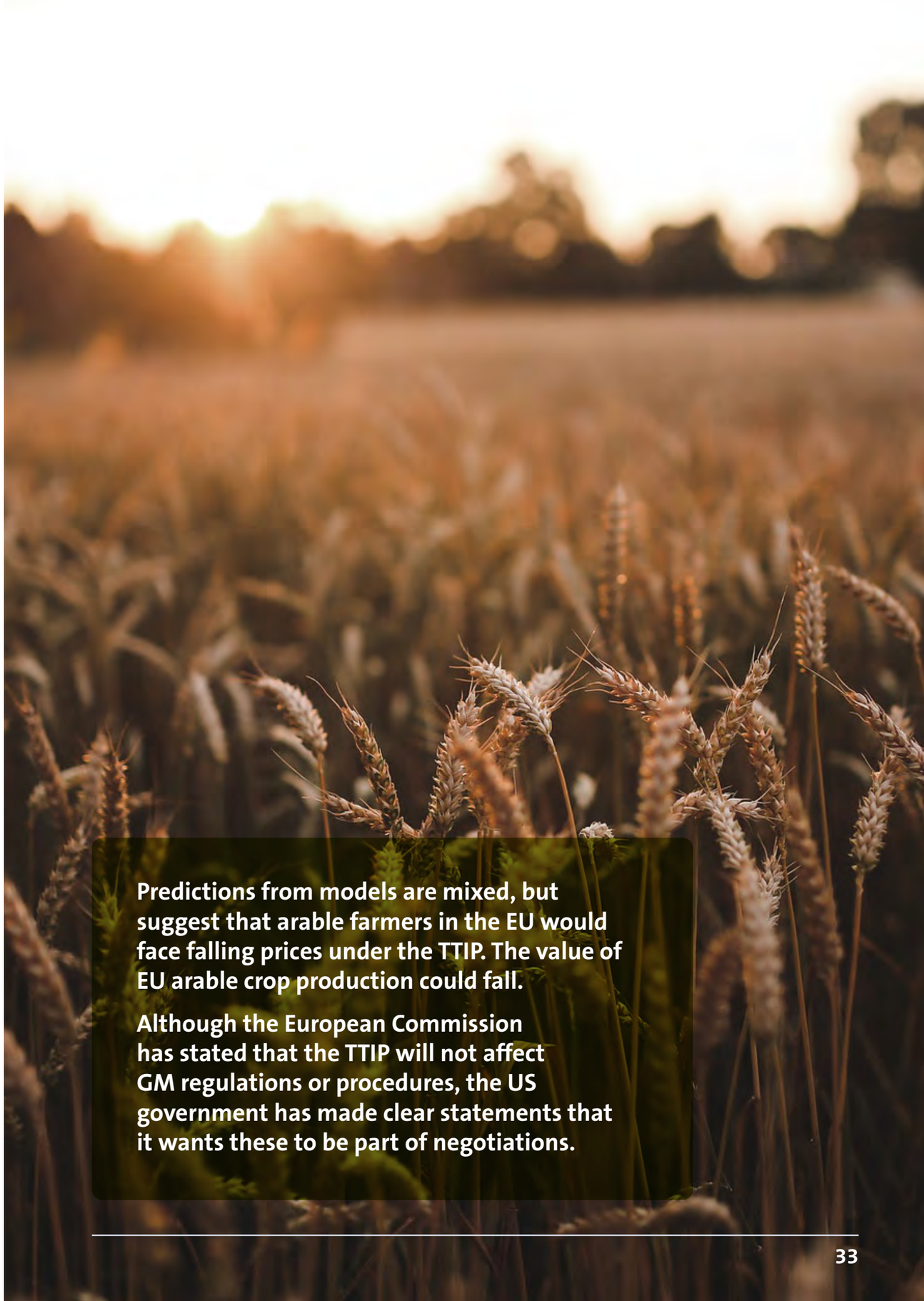
Predictions for changes in cereal production under TTIP

Modelling Study	Predicted change in cereals value added (output)			
European Parliament ***(Bureau, et al., 2014)*** *NB Figures for countries showing rises in output were not presented*	*US*		*+1.3%*	
	Austria		*-2.3%*	
	Benelux		*-3.5%*	
	Nordic		*-1.5%*	
	Spain		*-6.4%*	
	France		*-2.1%*	
	Germany		*-1.6%*	
	Ireland		*-4.2%*	
	Italy		*-2.4%*	
	Portugal		*-6.2%*	
	UK		*-4.1%*	
CEPII ***(Fontaigne, Gourdon, & Jean, 2013)***	*US*		*+2.9% ($1.3Bn)*	
	Germany		*-2.5% ($200M)*	
	UK		*-5.1% ($100M)*	
	France		*-1.9% ($200M)*	
	'South Europe'		*-4.6% ($700M)*	
	Change in US Wheat price	Change in US wheat output	Change in EU wheat price	Change in EU wheat output
USDA ***(Beckman, et al., 2015)***	*-0.06%*	*-0.98%*	*-0.68%*	*-0.26%*

The USDA model also considers 'coarse grains' (maize, sorghum, millet) and predicts that with full tariff removal and elimination of non-tariff measures, the TTIP would lead to an increase of US exports of US$ 336 million (89%), leading to a 2% fall in EU production and 1.16% fall in price (Beckman, et al., 2015, p. 27). This is perhaps illustrative of US aspirations, because 'elimination of non-tariff measures' (in other words, 'harmonisation' of GM approvals, monitoring and traceability) would be a huge concession by the European Commission, and one that they have already ruled out. Nevertheless, a 2% fall in EU production would be significant, particularly for France and Romania, which are the EU's largest maize producers (Eurostat, 2015).

The USDA predictions for oilseed rape are fairly complex. It is suggested that if harmonisation of GM approvals leads to increases in EU imports of soybeans, this will cause increases in EU oilseed rape production because, with more US soybean production going to the EU, markets would open for EU oilseed rape exports in other non-EU countries. However, if only tariffs are eliminated, then there would be almost no impact on trade in oilseed rape (Beckman, et al., 2015). The European Parliament report (Bureau, et al., 2014) predicts that eliminating tariffs and reducing non-tariff measures would lead to falls in arable oilseed crops, particularly in Austria (-1.1%), Benelux (-2%), Germany (-1.2%), Ireland (-2.4%) and the UK (-1.8%).

It is difficult to draw out implications for EU farmers of tariff elimination because arable farmers can switch between crops, although this can still affect income because crops are not necessarily equally profitable. The authors of the European Parliament report note that the "consequences of a free trade agreement between the EU and the US might lead to trade flows that are difficult to predict in the cereals market, due to possible substitutions between cereals on both the supply and the demand side" (Bureau, et al., 2014, p. 56). Substitutions of arable crops can have environmental implications because crop rotations directly impact plant and invertebrate abundance (Hawes, et al., 2009), wider biodiversity, soil erosion, carbon emissions, pesticide and fertiliser use (DG Environment, 2010). However, because the changes are too complex to predict, it is not possible to indicate the environmental impacts either.



Predictions from models are mixed, but suggest that arable farmers in the EU would face falling prices under the TTIP. The value of EU arable crop production could fall.

Although the European Commission has stated that the TTIP will not affect GM regulations or procedures, the US government has made clear statements that it wants these to be part of negotiations.

Impacts on Poultry production

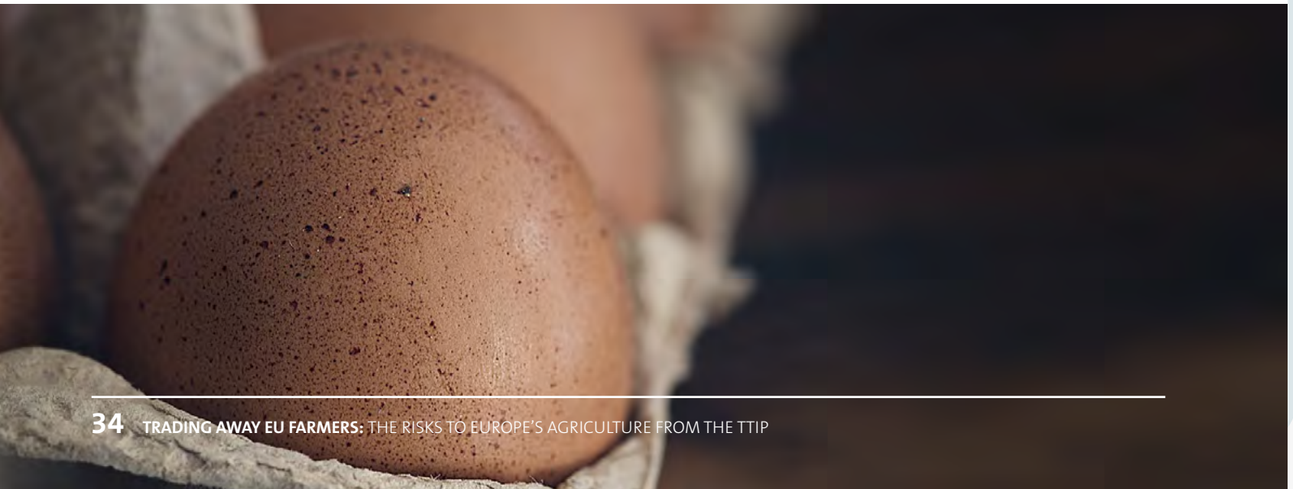
Trade in poultry products is very low between the EU and US; in 2011, the EU imported just $860 000 worth of poultry from the US, while US imports from the EU were only $160 000. In fact, the EU is self-sufficient in poultry meat, producing 14.1 million tonnes in 2014 (103% of demand) (A.V.E.C., 2015). Despite this, US producers view the EU as an important potential market because the EU is also a large importer of poultry meat.

The EU only allows small quotas for imports of poultry products (264 000 tonnes for salted breast meat, 251 000 tonnes for cooked breast meat, 20 000 tonnes for uncooked meat). Very high tariffs must be paid on any imports outside these quotas (up to €1.4 per kg), but because EU poultry farmers have high production costs imports can still be cheaper, even after the tariff is paid. As a result, 800 000 tonnes of poultry meat were imported in 2013 (Commission, 2014), valued at around €2 billion, with 90% coming from Brazil and Thailand (van Horne & Bondt, 2014). There is currently a 16 600 tonne reduced-tariff import quota for US poultry, but this is not filled.

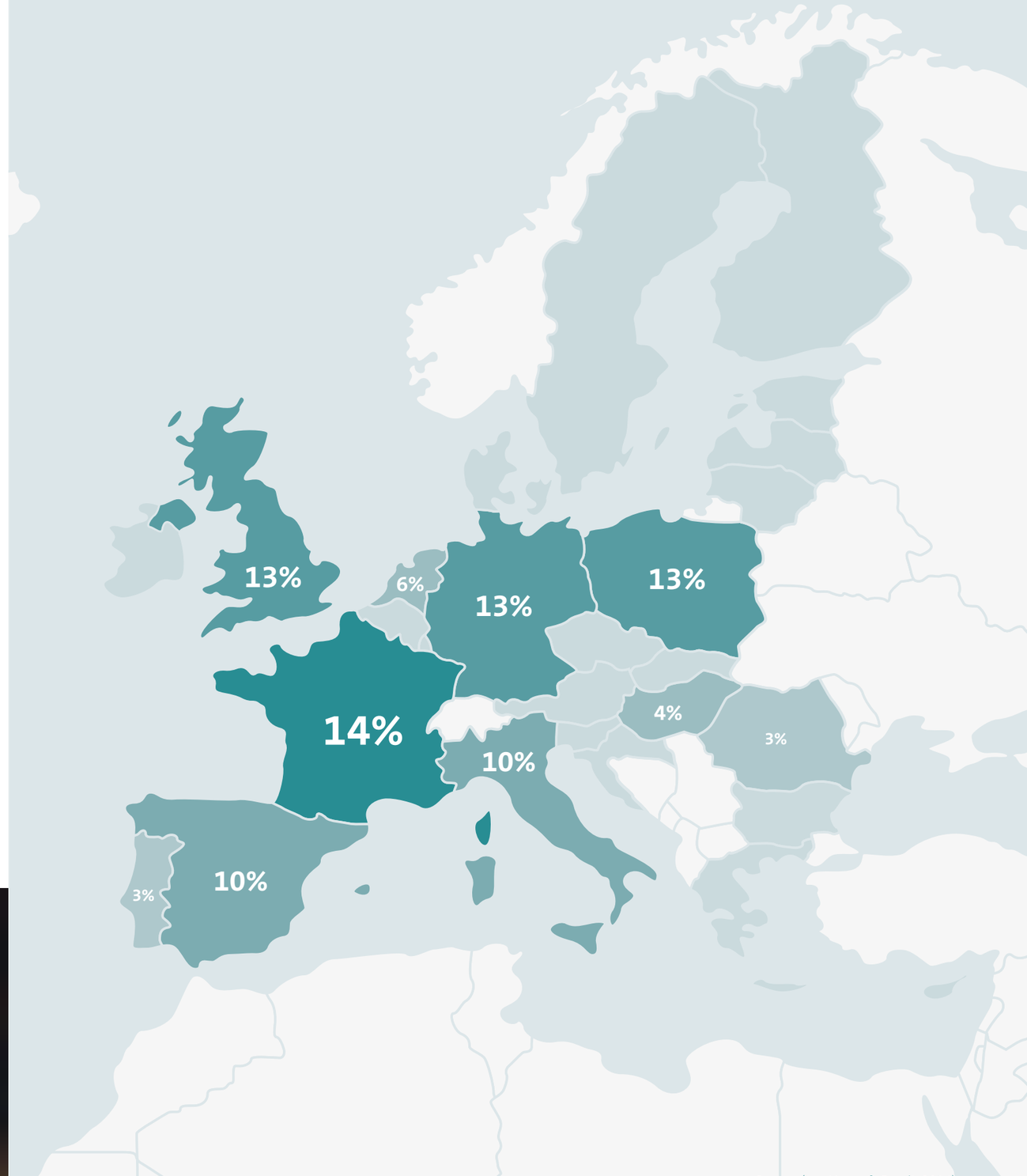
DIFFERENCES IN PRODUCTION

As with other agricultural sectors, poultry production is highly varied, ranging from farmers rearing small flocks for the local market through to industrial or 'commercial' broiler units holding many thousands of birds. The member states with the biggest concentration of commercial poultry farms (>5000 birds per unit) are France, Spain, Poland and Italy, and much of the poultry meat sold in European shops comes from these industrial broiler units. Nevertheless, poultry farming is still very important for small and mixed farmers, and there are more than 2 million smaller poultry farms in the EU, particularly outside the EU15. For example, Romania has 1.5 million farms producing poultry, but only 300 of these are classed as 'commercial' units. Similarly, less than 1% of the poultry farms in Greece and Portugal are classed as commercial broiler operations (van Horne & Bondt, 2014).

Poultry production in the US is concentrated, with 19% of holdings producing 68% of all birds sold (USDA, 2012b), and highly integrated, with most US poultry farmers working under contract to meat companies that own all parts of the production chain, including feed and transport. As a result, concerns have been raised in the US about the control and power of such companies over poultry farming (Macdonald, 2014). It has been calculated that stricter welfare, environmental and hygiene standards in the EU add 5% to the cost of production, and costs to US farmers are only 78% of those for EU farmers, mainly due to cheaper feed (van Horne & Bondt, 2014).



Main Poultry Producing Countries in the EU: in percentage of total EU poultry production



Source: (van Horne & Bondt, 2014)

ANIMAL WELFARE

A crucial difference between the EU and US is the oversight of animal welfare. EU legislation sets minimum welfare standards for poultry kept indoors, including maximum stocking densities, lighting, litter, ventilation and feed standards (Directive 2007/43/CE). Since 2012, laying hens can only be kept in 'enriched cages' (minimum space of 750 cm2) or a non-caged alternative (Directive 1999/74/EC). In the US, there are contractual or voluntary standards for bird welfare (National Chicken Council, 2012) but because they are privately audited, it is not possible to establish what proportion of US farms stick to them.

The UK National Farmers Union has said that "we do not regard US poultry production systems to be equivalent to the UK and we believe that the gap between the EU and US production methods is too wide and it is unrealistic to reach a compromise." (Meat Trades Journal, 2015).

There are major differences of approach to food safety. The EU only allows water to be used to wash raw poultry meat, requiring strict hygiene measures for abattoirs and during processing. In contrast the US allows lower hygiene standards (so reducing costs), but permits the use of 'pathogen reduction' washes at the end of processing to remove harmful bacteria, including chlorine and lactic acid solutions. Poultry meat treated in this way cannot be exported to the EU.

The US National Chicken Council has called the EU's ban on pathogen reduction washes "unwarranted" and "non-science based" (National Chicken Council, 2013). For its part, the European poultry processors and trade body, AVEC, argues that "the EU Commission should defend and promote the European system based upon the principles "prevention is better than cure" and on the "farm to fork" approach. It is fundamentally different from the system that is focusing only on the quality in the last stage of production." (A.V.E.C., 2015)

As well as tariff issues, EU poultry producers may be most affected by any TTIP compromise on the different food safety standards. There are already concerns that the EU will give in to US pressure on pathogen reduction washes; lactic acid washes for beef were recently approved, apparently as a good will gesture in advance of the negotiations (Josling & Tangerman, 2014). Significantly, in 2014 the European Commission asked the European Food Safety Authority to decide on the safety of using peryoxyacetic acid washes on poultry meat, which is seen as a move towards their approval.

PREDICTIONS FROM MODELLING

Three out of the four economic studies did not separately analyse either poultry or eggs. However, the USDA report predicts that the TTIP will have a small impact on trade between the US and EU. Taking into account consumer preferences, even if non-tariff measures are eliminated it still only predicts an extra US$460000 of US poultry meat imports into the EU (Beckman, et al., 2015). This is in sharp contrast to the comments of the US National Chicken Council, which has stated that "when TTIP negotiations are successfully concluded, U.S. poultry producers look forward to marketing over $500 million of products to the EU on an annual basis" (National Chicken Council, 2013).

Researchers from the University of Wageningen (van Horne & Bondt, 2014) looked in detail at the competitiveness of US poultry on the EU market, helping to explain why the TTIP does not seem to be as significant as US farmers would hope. The researchers found that a 50% reduction in tariffs would allow US poultry products to enter the EU market at below the cost of production for European farmers, however, US poultry meat is more expensive than Brazilian produce, and this is the main source of EU imports at present. The researchers suggest that Brazilian producers might be able to lower their price to maintain market share. In other words, US poultry would not necessarily be preferred to existing imports into the EU, and this may explain why the USDA predicts such a small increase in trade volume.

While EU producers must conform to strict legislation on animal welfare, there is only a voluntary code covering US farmers. Safety and hygiene standards are also very different, with the EU's 'farm to fork' approach being stricter and more costly.

Trade in poultry between the US and EU is currently very low, but the EU poultry sector is concerned about the approval of pathogen reduction washes in the EU, as this would allow US imports.

The European Commission appears to be clearing the way for approval of pathogen reduction washes for poultry products.

If this issue is resolved and a bigger import quota granted to the US, then US imports will still face strong competition from Brazil and Thailand.

None of the modelling examines the impact of the TTIP on egg production.

Impacts on Pork Production

EU pork production is concentrated in the EU-15 member states, apart from Poland. It is twice the size of the US industry (21.4 million tonnes compared to 10.5 million tonnes (DG Agriculture and Rural Development, 2014)) and is more industrialised, with 1.5% of operations producing 75% of pigs. Despite this, costs per pig are estimated to be 29% higher than in the US (USITC, 2014). The US pig farming industry is also very concentrated, with most farms specialising in different stages of the animals' lives (breeding to weaning, weaner-to-feeder, feeder-to-finish), and 91% of pigs going through specialist finishing units holding more than 5,000 animals (McBride & Key, 2014).

ANIMAL WELFARE

The EU has a range of legislation relating to animal welfare in farming, and several member states have their own, stricter, standards. The use of constricting 'sow stalls', routine tail docking and sow tethers have all been banned, pregnant pigs must be kept in groups and there are minimum standards of housing and welfare training for staff (Directive 2008/120/EC). The EU also sets minimum welfare requirements for transport and slaughtering of animals, both of which are stricter than those in the US (World Animal Protection/Humane Society International, 2014)

The US does not have any federal legislation on the welfare of farm animals, and standards for transport and slaughter vary by state (World Animal Protection/ Humane Society International, 2014). Although nine states have passed laws banning sow stalls, most animal welfare provision in the US is contractual (such as requirements by food retailers) or based on voluntary guidelines. The US National Pork Production Council has called for US negotiators to rule out of the TTIP negotiations any "non-science based proposals by the EU that could, if implemented, act as major impediments to trade (e.g., animal welfare measures)" (National Pork Producers Council, 2013)

The European pork market is second only to China, and is highly protected. The EU's total import quota for pork products from all WTO nations is less than 80,000 tonnes (EC Regulation 806/2007; EC regulation 1382/2007). However, in the CETA negotiations the EU recently agreed a zero-tariff quota of 75 000 tonnes for Canadian pork (DG Trade, 2014), estimated by Canadian producers to be worth $400 million. Given this concession to Canada, which ranks beneath the US in pork production, it is entirely possible that a larger zero-tariff import quota could be offered to the United States in the TTIP negotiations.

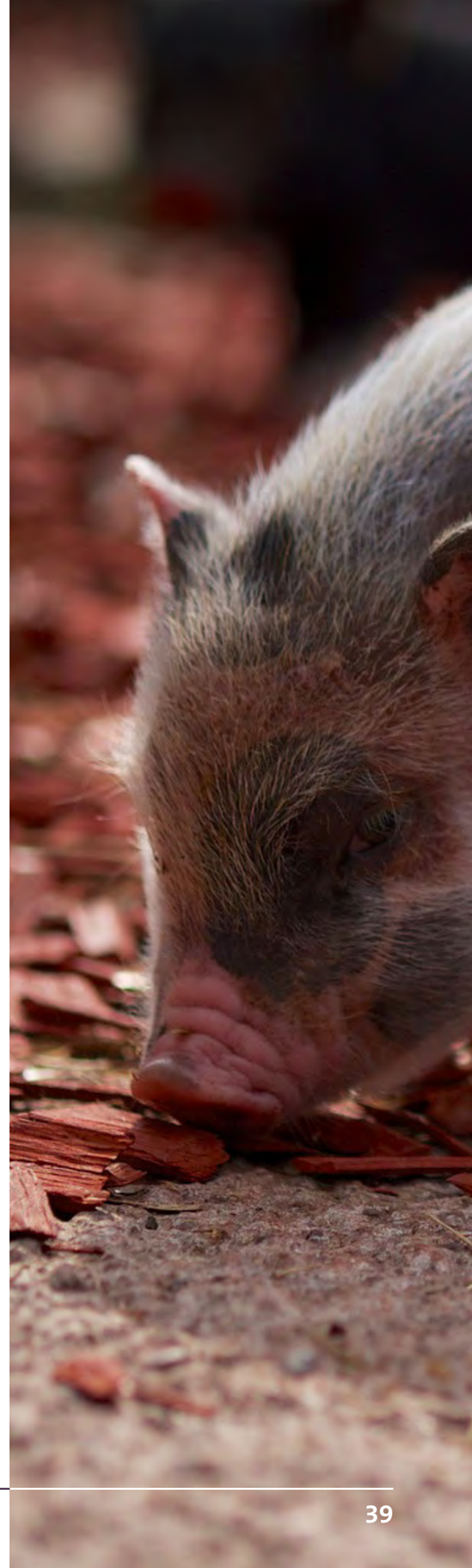
RACTOPAMINE

Ractopamine is a beta-agonist hormone growth promoter, one of a number of growth promoters widely used in US meat production, but banned in the EU. Ractopamine has been linked to increased aggression, heart rate and lameness in pigs. The European Food Safety Authority assessed ractopamine in 2009, particularly its potential for cardiovascular effects in humans, and concluded that no residue level is low enough to protect the most vulnerable people (EFSA, 2009). The EU has banned the sale of pig meat containing ractopamine residues because of the risk to consumers, and bans have also been applied in China and Russia.

In 2012, the international Codex Alimentarius (coordinated by the World Health Organisation and the Food and Agriculture Organisation) controversially set a maximum residue level (MRL) for ractopamine, but the European Parliament voted to maintain the EU ban. So it seems unlikely that the EU will change position on this chemical and ractopamine-treated pork is not expected to gain EU market access through the TTIP, although the US farm lobby is calling for it to be allowed if labelled (Byrne, 2015).

The US National Pork Producers Council has been lobbying for the complete elimination of import tariffs (National Pork Producers Council, 2013), but in reality these are not the main barrier to US imports. Most US pork is banned from sale in the EU because the EU does not allow the marketing of meat containing ractopamine residues. It is estimated that between 60% and 80% of pigs in the US are treated with the chemical (Strom, 2015), and as a result pork imports from the US were only 4,899 tonnes in 2012 (National Pork Producers Council, 2013).

US pork exports destined for the EU must go through the 'Pork for the European Union' program, certifying that ractopamine that has not been used, with residue tests being conducted at a Canadian laboratory. However, the USDA recently set up a 'never fed beta agonists' certification program, and there are also moves to increase the infrastructure and production of ractopamine-free pork in order to supply the Chinese market (National Pork Board, 2015). So if the EU grants an import quota to the US in the TTIP negotiations, and if it approves testing facilities inside the US as part 'harmonisation of procedures', this could aid the development of a segregated supply of US ractopamine-free pork for the EU market. Whether a compromise would be acceptable in the US is another matter; the US National Pork Producers Council has stated that "U.S. pork producers will not accept any outcome other than the elimination of the EU ban on the use of ractopamine." (National Pork Producers Council, 2013, p. 4)



PREDICTIONS FROM MODELLING

Two of the four models do not differentiate pork from other meats. The study for the European Parliament includes in pork the category of 'white meat', and predicts significant falls in output for this sector, particularly for the Baltic States and France. However, the study assumes complete elimination of tariffs; pork is one of Europe's most protected farming sectors and full tariff elimination would be a break from the approach in previous trade agreements, where import quotas have been negotiated.

Decline in 'white meat' production predicted by EU parliament study (Bureau, et al., 2014)

EU member state or group	Predicted decline in 'white meat' under conditions of full tariff removal and 25% reduction in NTMs
Baltic	*-9.6%*
France	*-4.5%*
Ireland	*-2.7%*
Nordic	*-2.1%*
Germany	*-2.0%*
UK	*-2.0%*
Benelux	*-1.4%*
Austria	*-1.2%*
Italy	*-1.0%*

Nevertheless, the authors comment that "should the US have access to the EU [white meat] market duty free, this may lead to significant extra imports and to new economic difficulties for EU producers" (Bureau, et al., 2014, p. 57).

The USDA also assumes full tariff and quota removal, and elimination of 'non tariff measures'. Its modelling predicts that US pork exports will increase by $1.2 billion, or almost 2000%. The price on the EU market would fall by 0.56% and production by 1.93%. However, this result needs to be treated with caution because the EU is very unlikely to remove all tariffs on pork imports, and the key 'non-tariff measure' with respect to pork is ractopamine; it is extremely difficult to imagine the European Parliament and member states agreeing to ractopamine-treated imports, so harmonisation agreements making it easier for US producers to develop a ractopamine-free supply seem more likely.

The economic modelling with respect to pork is either not sufficiently detailed or uses assumptions that are less likely to occur in reality, so it is not possible to draw strong conclusions on the impacts of the TTIP.

Ractopamine remains a highly contentious issue, but a ractopamine-free supply of US pork could develop.

The EU has always maintained strong protection against pork imports, and so it is more likely that the EU will offer a quota on pork imports, than tariff elimination.

Insufficient modelling has been conducted on the impact on EU producers of a large quota for ractopamine-free pork.

Conclusions

The EU and US have a long history of trade disputes and differences of opinion on agriculture, particularly with regard to environmental protection, consumer safety, animal welfare and farming support. Even if agricultural markets are opened by the TTIP, EU and US farmers will still be operating under very different conditions and, it can be argued, producing quite different products.

The TTIP is a significant change from previous trade deals because it includes a whole range of non-trade issues that impact on consumers, farmers and the environment. These include food safety rules, the use of antibiotics and hormones in meat production, the use of chemical rinses for meat products, pesticide use and GM crop production.

If the US agriculture lobby get its way, economic analyses predict potentially devastating impacts for sectors of EU farming, particularly beef, pork and dairy production. Impacts for arable farmers are uncertain, and unknown for egg producers, while eliminating tariffs on poultry products would allow US producers to undercut EU farmers.

According to the analyses, more export opportunities do not mean better incomes for European farmers, and sharp drops in farm gate prices are forecast for several types of farming. EU gains are restricted to a few sectors, such as cheese, but even these are dependent on the US giving way on 'non-tariff measures' that it uses to restrict trade. The European Commission's focus on Geographical Indications is also questionable, because the benefits seem likely to be restricted to export-oriented producers and a small number of GI products.

The analyses predict that the TTIP will increase imports from the US, while having fewer benefits for EU producers. Studies foresee a decline of up to 0.8% for EU agriculture's contribution to GDP, while US agriculture's contribution to GDP increases by 1.9%. The US Department of Agriculture is predicting falls in the price paid to European farmers in every food category.

Taken together, the economic modelling studies predict that the TTIP could have serious impacts on a number of EU farming sectors, with many farmers across the EU struggling, while only a few benefit.

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Endnotes

1 Letter from multiple US food and farming organisations and associations to Ambassador Ron Kirk, March 4, 2013: http://www.nppc.org/wp-content/uploads/2013-03-04-Ag-Coalition-US-EU-FTA.pdf

2 Friends of the Earth Europe information request on meetings between European Commission officials and corporate lobby groups on TTIP: Friends of the Earth Europe (2014) Who's driving the EU-US trade talks? https://www.foeeurope.org/whos-driving-eu-us-trade-talks-070714

3 See comments in US Trade Representative (2014) 2014 Report on Sanitary and Phytosanitary Measures, Washington DC: Office of the United States Trade Representative, and US Trade Representative (2014) 2014 Report on Technical Barriers to Trade, Washington, DC: United States Government. For industry comments see also note 1

4 Ban on Estradiol, testosterone, progesterone, zeranol, trenbolone acetate and melengestrol acetate brought into effect in 1989

5 For example: "long delays in reviews of biotech products" "must... be addressed in the negotiations" (USDA Foreign Agricultural Service, 2015a).

6 Directive 2007/43/CE sets minimum welfare standards for poultry kept indoors, including maximum stocking densities, lighting, litter, ventilation and feed standards. Directive 1999/74/EC requires that laying hens only be kept in 'enriched cages' (minimum space of 750 cm2) or a non-caged alternative

7 In 2014 the European Commission asked the European Food Safety Authority to decide on the safety of using peryoxyacetic acid washes on poultry meat

8 Following a trade dispute, the US and EU reached an agreement in 2006 that offers some protection to wines and spirits. A list of 'semi generic' wine names was agreed, whose use would be limited by US law, including Burgundy, Chablis, Champagne, and Sherry. Existing US producers were 'grandfathered' (allowed to keep using the name) but no new production under these names is allowed. This may be weak by EU standards, but it means that GI designations for many EU wines and spirits are already protected in the US.

9 Cargill (21%), Tyson (21%), JBS (20%), National Beef Packing (11%), American Foods Groups (6%) (Confederation Paysanne, 2014).

10 Estradiol, testosterone, progesterone, zeranol, trenbolone acetate and melengestrol acetate.

11 The US has an additional 11,500 tonnes of beef quota at 20% of the standard tariff, agreed in the 1970s.

Conclusions

The EU and US have a long history of trade disputes and differences of opinion on agriculture, particularly with regard to environmental protection, consumer safety, animal welfare and farming support. Even if agricultural markets are opened by the TTIP, EU and US farmers will still be operating under very different conditions and, it can be argued, producing quite different products.

The TTIP is a significant change from previous trade deals because it includes a whole range of non-trade issues that impact on consumers, farmers and the environment. These include food safety rules, the use of antibiotics and hormones in meat production, the use of chemical rinses for meat products, pesticide use and GM crop production.

If the US agriculture lobby get its way, economic analyses predict potentially devastating impacts for sectors of EU farming, particularly beef, pork and dairy production. Impacts for arable farmers are uncertain, and unknown for egg producers, while eliminating tariffs on poultry products would allow US producers to undercut EU farmers.

According to the analyses, more export opportunities do not mean better incomes for European farmers, and sharp drops in farm gate prices are forecast for several types of farming. EU gains are restricted to a few sectors, such as cheese, but even these are dependent on the US giving way on 'non-tariff measures' that it uses to restrict trade. The European Commission's focus on Geographical Indications is also questionable, because the benefits seem likely to be restricted to export-oriented producers and a small number of GI products.

The analyses predict that the TTIP will increase imports from the US, while having fewer benefits for EU producers. Studies foresee a decline of up to 0.8% for EU agriculture's contribution to GDP, while US agriculture's contribution to GDP increases by 1.9%. The US Department of Agriculture is predicting falls in the price paid to European farmers in every food category.

Taken together, the economic modelling studies predict that the TTIP could have serious impacts on a number of EU farming sectors, with many farmers across the EU struggling, while only a few benefit.

Friends of the Earth Europe