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September 2018

COMING HOME TO ROOST:

The British Poultry Meat Industry After Brexit

Joe Cowen and Mark Morrin

About the Authors

Joe Cowen is a Research and Policy Advisor at ResPublica.

Mark Morrin is a Principal Research Consultant at ResPublica.

ResPublica Acknowledgements

This independent report has been supported by the British Poultry Council.

We would also like to thank Dr Dylan Bradley of Informa Agribusiness Consulting, for his input into this report.

Design, layout and graphics by BlondCreative (www.blondcreative.com).

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1. Executive Summary

The poultry meat sector is a vital British industry. Over 50% of all meat consumed in the UK is poultry, of which more than 88% is chicken. The industry directly employs over 37,000 people and sustains a total of 87,700 jobs,[1] turning over £7.2bn and contributing £5bn Gross Value Added (GVA) to the UK economy. For every £1bn the sector contributes in GVA, it also generates £1.2bn in the rest of the economy and it also contributes over £1bn in direct and indirect tax revenue.[2] Ensuring the sustainability of the sector post-Brexit is fundamentally important to Britain's economy.

At present, the UK is the fourth-largest poultry meat producer in the EU and is about 60% self-sufficient.[3] The carcass balance, or import-export balance, with the EU is an important issue for the industry in the context of Brexit. UK consumers prefer to eat white breast meat, rather than dark cuts like wings, legs and thighs. This means that the UK is a net importer of poultry – predominantly of chicken breast - whilst producers have to export surplus dark meat to maximise revenue. The profitability of the sector is therefore dependent upon finding a market for 75% of the bird that is left over after removing the breasts.[4] At present about 70% of our dark meat exports are to the EU,[5] and the majority of the poultry meat that is imported into the UK, including fresh chicken breast, comes from the EU. Maintaining this relationship is therefore vital to both the sector and the British consumer.

Upholding the high regulatory standards applicable to the poultry industry is also central to how British consumers feel about their food, especially following reports that the UK could be flooded with chlorinated US chicken after Brexit. Research highlights that quality of produce and animal welfare are the top priorities for UK consumers. They also value: eating British meat, ensuring produce is affordable, available to all, and is environmentally sustainable.[6]

The backlash following the publication of the Government's July 2018 White Paper (the Chequers plan) has raised the real spectre of a 'no deal' Brexit. As the date for concluding negotiations fast approaches, we are no closer to knowing whether we will be able to strike a trade deal or crash out of the EU and revert to trading on World Trade Organisation (WTO) terms. The poultry industry must therefore assess the possible impact of a 'no deal' Brexit.

The purpose of this report is to identify the main economic, societal and environmental risks to the poultry meat industry in the event of three potential Brexit scenarios. It is intended to enable Government to be as informed as possible, so it can act to mitigate future risks by negotiating a trade relationship with the EU that provides the best protection for UK producers and consumers. Our Brexit scenarios are:

- Scenario 1 'Evolution' which maintains the status quo.
- Scenario 2 'Trade liberalisation' where the UK reverts to WTO terms and then unilaterally removes tariffs on imports from all countries worldwide (including the EU).
- Scenario 3 'Fortress UK' or 'no deal' where the UK fails to agree a trade deal with the EU, reverts to WTO terms and applies these to imports from the EU.

We argue that 'Fortress UK' represents a worst-case scenario for the poultry industry and British consumers. In this scenario the UK reverts to WTO rules, resulting in additional trade friction costs of 8%, with the introduction of new checks to ensure regulatory equivalence that would create significant delays.[7] If the UK leaves the EU without a deal the costs of labour are also likely to increase. An increasing body of economic analysis indicates that restrictions on the free movement of labour will result in increasing wage and labour costs of 50%.[8] Indeed, labour costs have already risen by 25% in the chicken broiler sector as the labour market has tightened since the referendum.[9]

A 'no deal' Brexit also threatens the values which UK consumers hold. It presents an unprecedented challenge to the quality, availability, affordability and choice of poultry meat in the UK. The UK has some of the highest health, environmental and welfare standards in the world. However, should the UK fail to agree a free trade agreement (FTA) with the EU and/or unliterally remove tariffs for all trade partners, there is a danger that UK consumers will be faced with a lowering of standards and poorer quality food with imports from non-EU states. Chlorinated chicken has become a particular area of public concern as the US has made clear that abolishing EU health, safety and welfare standards is essential for any future trade deal with the UK.[10] Given the less rigorous nature of US food standards, increasing the import of US poultry meat in a 'Fortress UK' scenario would expose UK consumers to inferior standards at the expense of higher standard UK poultry. These values are important to British consumers and must not be sacrificed by the UK leaving the EU.

There is also the danger, in the event of a 'no deal' Brexit, that the UK could increasingly become a country divided by its consumption of food. When the increased costs of production are passed on to consumers through higher prices, lower-income consumers may be left unable to afford fresh British chicken, instead having to rely on cheaper, lower standard meat imports from countries outside the EU. This could create a two-tier food system, where only the wealthy can afford to eat fresh home-reared chicken. This raises issues of consumer choice, food standards and the costs of an increased regulatory burden. Again, this goes against the principles that British consumers value, and it must be prevented from occurring.

Finally, rolling back the EU's regulatory net would have significant impacts upon the environmental sustainability of the poultry meat industry. Consumers and producers care about the sustainability of poultry meat and by forfeiting access to EU regulatory bodies, the UK could lose monitoring, scrutiny, transparency, accountability and enforcement powers for its environmental policies that make it Europe's leader in this field.

Brexit therefore poses economic, social and environmental risks to the UK and its consumers. This report suggests a series of safeguards that could be put in place to offset these risks. Brexit must be used as an opportunity to re-focus our attention on British values, to state boldly that prioritising high standard, affordable and sustainable British produce, for all, is at the top of our agenda. An essential part of defending these values is securing Britain's poultry industry for the future, protecting the benefits the sector brings to the economy. We want Government to adopt policies that drive productivity and job growth; protect environmental sustainability; and strengthen our food security in a post-Brexit Britain. Beyond avoiding a 'no deal' Brexit, our recommendations include:

- ***Maintaining health and welfare standards & prioritising the need for strong regulators.*** It is reported that senior Government advisors have made plans to 'suspend food controls if there are any delays to imports of perishable foods at our borders'.[11] This cannot be allowed to happen. We applaud Michael Gove's commitment to higher standards,[12] but more is required. The Government must work with policymakers to create a 'clause' that ensures all future imports meet UK standards. This clause must then be inserted into all and any future trade negotiations. The Government must also commit to a 'quality advancement principle', which lays out the Government's commitment to pursue higher standards post-Brexit, and we recommend that regulators are given stronger powers to monitor and maintain such high production standards.

- ***Increasing productivity, innovation and investment through fiscal enticements.*** The Government should provide tax incentives for investment in new infrastructure, 'green technologies' and research and development (R&D) in the sector, to increase output and create a more flexible and resilient food system. For example, reintroducing the Agricultural Buildings Allowance.

- ***Securing access to high-quality labour by introducing a flexible visa system.*** Given that 60% of the poultry sector's workforce is from Europe,[13] and that Brexit could drive up the costs of labour by 50%, maintaining free-flowing access to migrant labour is vital to the competitiveness and sustainability of the industry. The White Paper is sparse on detail about future immigration, and we call on the Government to provide immediate clarity on its proposed migration policy. We also recommend developing a visa system that allows migrant labour to enter the UK to do jobs that British labour does not presently have the capacity or inclination to take on.

- ***Prioritising British food through social value in public procurement.*** To ensure future food policy meets British values, the Government should pledge to source high standard British chicken for our schools and hospitals. At present, the majority of chicken procured by the public sector is processed chicken from non-EU states because of its reduced cost. If we leave the EU's regulatory protection, we risk exposing our young and elderly population to the creation of a two-tier food system. To prevent this, we must shift the focus from providing food in schools and hospitals based on cost, to sourcing it because we value the health and safety of our citizens.

- ***Educating consumers to be sustainable and use the whole bird.*** To improve the sustainability of UK poultry meat, we need to improve the domestic carcass balance. This would reduce the impacts of the potential surplus of dark chicken meat that would be created in a 'no deal' Brexit, when it becomes uncompetitive with the EU. To achieve this, we recommend an industry led 'sustainable consumption' campaign to educate consumers about the benefits of eating dark poultry meat for the environment, the economy and Britain's food security by providing recipes to integrate such meals into British culinary culture.

This report should act as a wake-up call for Government and policymakers to recognise and protect the economic importance of the UK poultry industry and the social values which British consumers hold dear, by preventing a 'no deal' exit from the EU.

Table 1: Summary of Post-Brexit Scenarios

	Scenario 1: Evolution	Scenario 2: Trade Liberalisation	Scenario 3: Fortress UK
Labour Cost	• Supply retained at current level • No change to labour costs	• Non-UK labour restricted to 50% of current levels for permanent positions • Retained at current level for seasonal workers • 50% increase in permanent labour costs	• Non-UK labour restricted to 50% of current levels for permanent and seasonal staff • 50% increase in labour costs for both permanent and seasonal staff
Trade Relationship with the EU	• Comprehensive FTA enabling tariff-free trade between UK and EU • Increase of 5% in trade friction in an FTA	• No trade deal between the UK and the EU • UK-EU trade relationship the same as with non-EU states • UK unilaterally removes import tariffs from agricultural products • Trade friction costs of 8% to reflect lack of an FTA	• No trade deal between the UK and the EU • UK-EU trade relationship the same as with non-EU states, i.e. WTO tariffs • Trade friction costs of 8%
Trade Relationship with non-EU States	• WTO rules apply • UK has access to a share of the EU's existing WTO tariffs and agrees FTAs with third countries which already have FTAs with the EU • Trade friction costs of 8% with non-EU states	• WTO rules apply although UK removes all import tariffs for agricultural products • Trade friction costs of 8% to reflect the costs of trade friction	• WTO tariffs • Trade friction costs of 8%
Food Standards	• Retained at current level	• At risk unless EU regulations for monitoring food standards are maintained	• Reduced when demand is met with the import of poultry meat from non-EU states with lower standards • At risk of creating a two-tier food system • Undermines British food value of availability, affordability and high-quality of produce for all
Environmental Impact	• Retained at current level • EU environmental regulations retained	• At risk unless EU regulations for monitoring environmental standards are maintained	• Undermines British food values of safety and sustainability of the environment
	Best-Case Scenario -->>> Worse-Case Scenario		

2. Introduction

Securing the post-Brexit success of the British poultry industry is essential to Britain's national interest in maintaining high value trade, jobs and high standard produce. Poultry meat is the single most consumed meat in the country[14] and whilst the UK is 60% self-sufficient in production, on trade it remains a net importer of poultry - with the majority of imports coming from the EU.[15] Assessing the impact of the UK's exit from the EU and a future relationship with Europe is therefore vital.

What will happen to the UK's poultry meat sector if and when Brexit occurs? Will producers and consumers alike be willing to pay potentially higher prices? Or will the population be happy to consume lower standard meat, after the UK leaves the regulatory safety net of the EU's common food standards? Unless the Government is made aware of the key challenges and options available to it, which this report outlines, the UK is at risk of undermining its food security and the safety of its citizens. Brexit must be prevented from becoming the point where we forgo our values and allow standards to slip.

These risks should not be dismissed as 'project fear'; this report arises from the genuine concern of the poultry meat sector about how Brexit will affect its industry and how consumers will end up viewing poultry meat post-Brexit, along a scale of best to worst case scenarios.

There is no doubt that Brexit will fundamentally change the UK's relationship with the EU. Currently, the UK levies common tariffs on products imported into the EU by non-member states and benefits from a single legal operating framework and tariff-free trade within the EU. This relationship is set to transform as the Prime Minister has made it clear that upon leaving the EU, the UK will no longer be a full member of the Single Market or Customs Union.[16] However, as highlighted by the Government's July 2018 White Paper, the UK proposes to agree a new Facilitated Customs Agreement (FCA) which would create a free trade area for goods, including agri-foods, establishing a 'common rulebook' and making the choice 'to commit by treaty to ongoing harmonisation with EU rules on goods'.[17]

It is far from certain that these new proposals will pass through Parliament; and even if they do, whether the EU will accept these new proposals remains unknown. The White Paper offers no new plan for immigration and free movement of labour. There is no commitment to a more generous system of visas for EU workers over non-EU workers, let alone a modified version of free movement. The EU is likely to see this as a missed opportunity, meaning that either the UK will have to move substantially beyond this position or the EU will have to reverse its long-held dogma that it is impossible to cherry pick the four freedoms. If neither of these occur, then the White Paper's proposals are unlikely to be welcomed in Brussels. The date for concluding negotiations is fast approaching; if an agreement is not reached by March 2019 then trade between the UK and EU would revert to WTO rules.

The amendments agreed following the publication of the White Paper, and the narrow defeat of the pro-EU Tory rebel amendment (seeking maintenance of the Customs Union should the UK reach 'no deal'), indicate a potential new reality for Brexit. Of the two camps of MPs who could block the Prime Minister's preferred 'Chequers plan', the Brexiteers appear to be far stronger than the Europhiles. It was they who forced concessions from the Prime Minister, whilst amendments from Remainers were defeated. This could have severe implications for the type of Brexit the Prime Minister can deliver. It is worth noting that Parliament has now outlawed the creation of a hard border on the island of Ireland, outlawed the creation of a border in the Irish Sea between Northern Ireland and the UK, committed itself to membership of the European Medicines Agency, and committed itself to exit the EU's VAT regime. Reconciling these pledges will not be easy. A 'no deal' scenario is now being prepared for by the European Commission[18] and the UK Government.[19]

There are clearly numerous uncertainties surrounding Brexit's next steps and this could result in serious problems for the poultry meat industry, the British economy, British consumers and the sector's environmental sustainability. The probability of the UK reaching a deal with the EU changes daily, and we are no closer to understanding whether the UK will be able to strike a deal with the EU or in a worst-case scenario, crash out and revert to WTO terms. As the possibility of a 'World Trade' option (as 'no deal' has optimistically been rebranded by the Brexiteers) gains traction, now is the time for the poultry meat industry to assess the impacts of such a worst-case scenario and the possible alternatives. The sector is rising to meet the Secretary of State for Exiting the European Union's call for industries to review their own 'no deal' contingency plans.[20]

This report aims to fill the information gap and address the uncertainty by providing analysis of the various scenarios available to the UK. It sets out their key impacts of the various Brexit scenarios on the economy, society, and the environment; before providing recommendations on ways to mitigate the risk of what lies ahead. We begin by highlighting the importance of the poultry industry to Britain's economy, to put in context why the Government must create policies and negotiate a position that works in the best interest of the sector and thus the country.

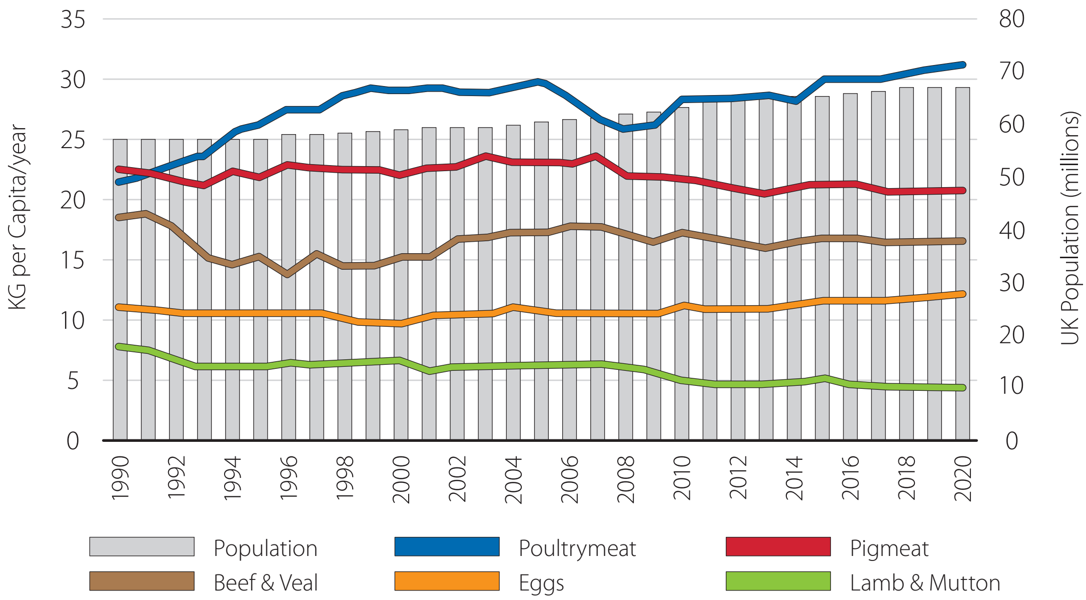
We suggest that the British poultry meat industry is vulnerable to rising costs of labour, lower standard imported produce, and environmental degradation should we remove tariffs or reach 'no deal'. The knock-on effect to the individual is the risk of eating chicken produced to lower environmental and food safety standards, imperilling the health and safety of the public and compromising the values that consumers hold about British produce. There is also a risk that the increased cost of British poultry meat will be passed on to the consumer through higher prices, amplifying societal inequalities and creating a two-tier food system in Britain – where only the wealthy can eat high standard chicken, whilst those most vulnerable are left to consume poultry meat that is produced to lower standards.

Our central contention is that the Government must focus on maintaining access to labour and the highest quality standards to provide fresh poultry meat that is available and affordable for everyone. This is the key moment to realise the importance of the industry, the importance of British values in relation to food and how they are threatened by a poorly negotiated Brexit. Whilst the poultry meat industry is robust and will always move forward, we cannot allow Brexit to become the turning point where we sacrifice our beliefs and allow standards to slide.

3. About UK Poultry

Poultry meat is the most consumed meat in the UK, with almost a billion poultry birds consumed annually.[21] It makes up over half of all meat eaten by Brits each year, with the average consumer eating chicken twice a week and almost 13 whole birds a year.[22]

Figure 1: UK per Capita Consumption of Selected Proteins – 1990 to 2020



Source: DEFRA, ONS, The Andersons Centre

3.1 Make-up of the sector

The poultry meat industry is an integrated sector. It is made up of breeding companies who rear chickens, turkeys, ducks and geese for consumption and poultry processors who slaughter, prepare and manufacture poultry meat products.

This report will focus primarily on the chicken (broiler sector), because it makes up 88% of the total poultry meat market,[23] and largely represents general changes to the sector. For the purposes of this report it acts as the 'canary in the coal mine' for how Brexit will potentially impact the poultry industry as a whole.

3.2 The economic importance of the poultry meat industry

Contribution to employment

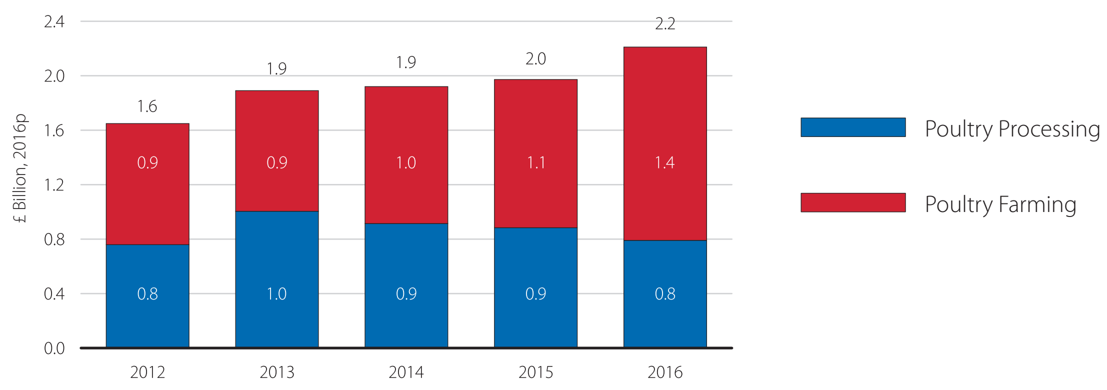
The poultry meat industry is an important employer in the UK. It is estimated that the sector sustains approximately 87,700 jobs.[24] Of this total number, 37,200 are directly employed by the poultry meat industry, with around 28,000 employed in poultry meat processing and 9,000 in poultry production and farming.[25] Of these employees, an estimated 60% are migrant workers, mostly from the European Union.[26] The remaining 50,000 plus workers are supported indirectly by the industry's procurement of goods and services and payment of wages. The sector also has an employment multiplier effect; for every 100 jobs in poultry 133 are maintained somewhere else in the economy.[27]

Contribution to GDP

The poultry industry has additional impacts on Britain's wider economy. It has an annual turnover of over £7.2bn and supports an estimated £4.6bn GVA contribution to the UK's GDP. As Fig. 2 shows, the industry itself adds £2.2bn GVA whilst the remainder is created by the poultry industry's labour spend and procurement spending.[28] The sector also has a GDP multiplier effect, so for every £1 GVA created by the poultry meat industry, it creates £1.20 in the wider UK economy.

The poultry meat industry is also one of the UK's more productive industries, with labour productivity 1.5 times higher than the UK average.[29] Although it only employs 2% of the total agricultural labour force, it generates 10% of the wider sector's GVA. The poultry meat industry's GVA has also been growing substantially, with a growth rate of 36% since 2012 or approximately 9% per annum, compared to a drop of 11% GVA in the agricultural sector in general over the same period.[30]

Figure 2: Poultry Meat Industry's Gross Value-added Contribution to GDP, 2012-16 (real terms)



Source: DEFRA, ONS, Oxford Economics

Further comparisons within the agricultural sector also highlight the importance of the poultry meat industry. In 2016, poultry meat was responsible for 26% of the £3.1bn GVA made by the whole livestock industry, 33% of the £4.3bn GVA of the meat processing industry and 10% of the £8.2bn GVA created by the whole agricultural sector.[31]

Contribution to tax revenue

Such economic activity in the poultry meat industry creates significant tax revenue for the Treasury each year, which can then be spent on essential public services. In 2016, the sector directly generated £325 million in tax revenue.[32]

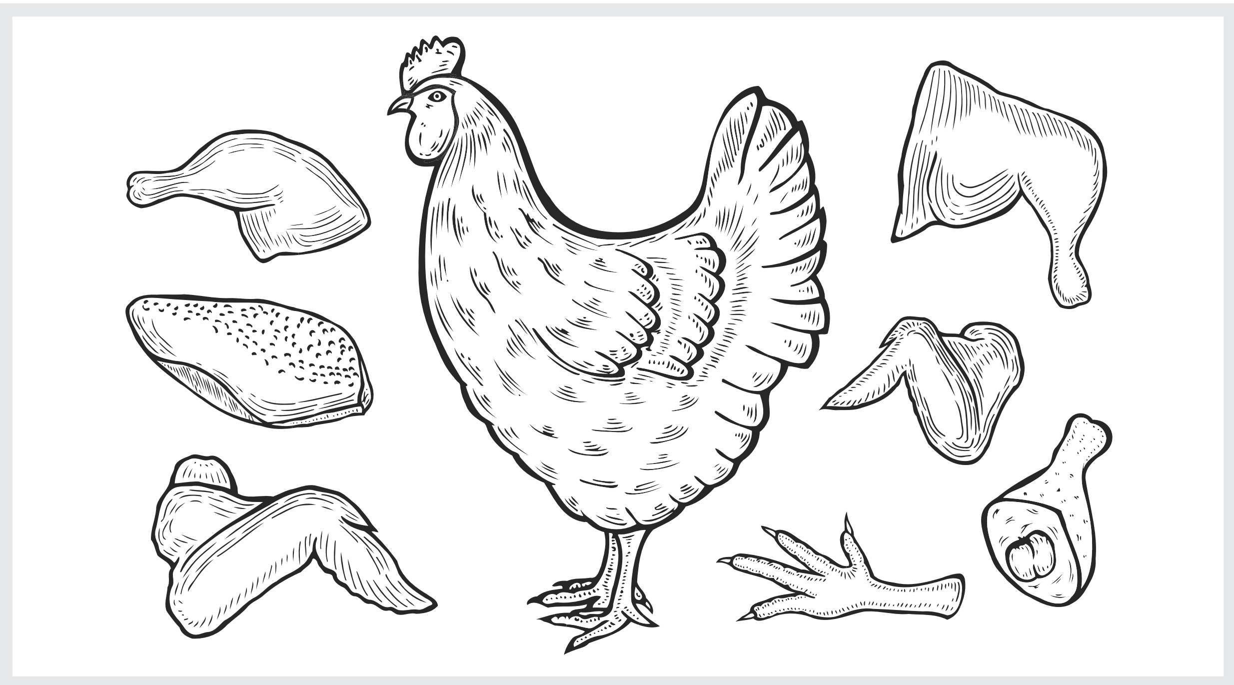
Indirect contributions

Beyond this, the poultry meat industry creates indirect contributions to the economy and the Treasury. In 2016 the poultry meat industry and processing sector spent £3.2bn on goods and services from UK suppliers. This supported £1.5bn in GVA to UK GDP, created more than 29,000 jobs throughout the UK economy and added another £349 million to the Treasury's coffers.[33] In addition to this, wage-financed spending by the sector contributed £1.3bn GVA to GDP in 2016 and created £397 million in tax revenue.[34]

3.3 The Carcass Balance

The 'carcass balance' is a unique issue for the meat sector, and the poultry meat industry in particular. Unlike a traditional manufacturing industry that sources components from across the world and assembles them in one location, the meat trade disassembles its product in one place and then has to find a market for every part of the animal in order to maximise returns.[35]

This is an issue for the British poultry meat industry. Although the UK is a net importer of poultry meat, exports are essential for the industry because consumers in the UK prefer to eat white breast meat, rather than dark chicken meat (wings, legs, thighs) which has a small domestic market.[36]



BRITISH POULTRY MEAT IN THE UK

AN INTEGRATED SUPPLY CHAIN
BREEDING, FARMING & FOOD MANUFACTURING

POULTRY IS HALF THE MEAT EATEN IN THIS COUNTRY
...AND GROWING

ON COURSE TO GROWING ONE BILLION BIRDS EVERY YEAR

GVA CONTRIBUTION
£4.6 BILLION PER YEAR

££££

POULTRY MEAT INDUSTRY
36%
INCREASE

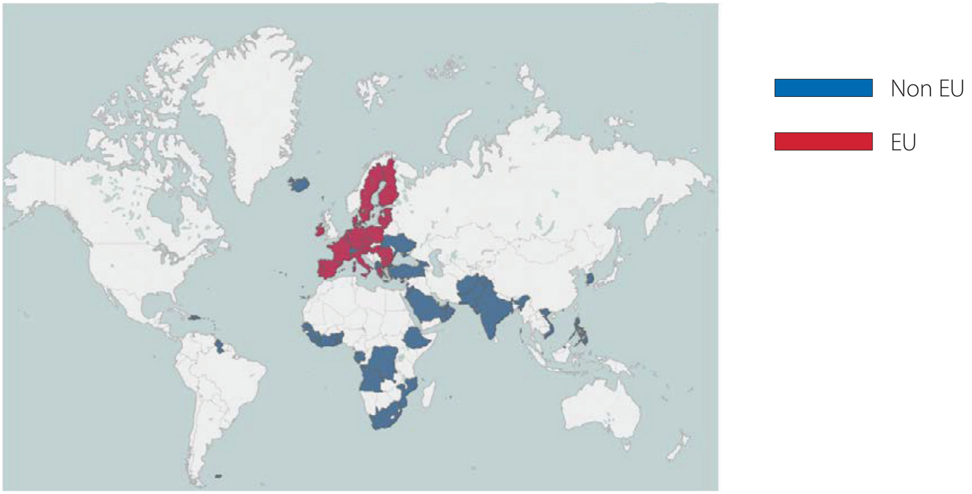
REST OF THE ECONOMY
9%
INCREASE

TAX CONTRIBUTION TO THE EXCHEQUER
OVER £1 BILLION
PER YEAR

DIRECTLY EMPLOY OVER 37,000 PEOPLE

This means that UK producers have to export the surplus dark meat cuts to avoid waste and maximise revenue. As the International Meat Trade Association (IMTA) make clear, the profitability of the sector relies on matching demand to all parts of the carcass, which means finding a market for 75% of the bird that is left over after removing the breasts.[37] In recent years, dark meat exports have been between 250,000 to 300,000 tonnes a year, or approximately 20-25% of production,[38] with around 70% of these exports headed to the European Union – in particular to Eastern European states where there is a market for dark meat such as wings.[39]

Figure 3: Map of UK Fresh/Processed Poultry Exports by Destination



The above map shows the countries to which the UK exported fresh/frozen poultry in 2017, according to IHS Maritime and Trade - Global Trade Atlas/HMRC
The wesite below provides guidance on exporting, including a list of available Export Health Certificates (EHC)
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/730841/ehc-available-list.pdf
Date as at February 2018

Source: International Passenger Survey Estimates, ONS

On the other hand, the UK imports an estimated 35-40% of the poultry meat it consumes. 95% of all these poultry imports, both fresh and frozen, are of whole chicken breast or made-of-chicken-breast products.[40] The majority of these imports come from the EU, and they reached 456,000 tonnes last year.[41] The import of processed poultry meat is also important. Processed meat imports include cooked, breaded, preserved and individually quick-frozen poultry meat products. They are also predominantly made up of breast meat and totalled 366,000 tonnes last year (Table 2).[42] The majority of these processed imports come from non-EU countries,[43] with Brazil and Thailand the leading suppliers due to their preferential trading agreements.[44] These low-cost producers can only supply processed products to the UK market because fresh chicken only has a shelf life of approximately 10 days from slaughter.[45]

Table 2: Volume and value of UK poultry meat imports

Tonnes, product weight	2013	2014	2015	2016	2017
Fresh/frozen poultry (incl. offals)	383,812	407,833	440,022	479,889	456,122
Salted poultry	49,610	56,098	60,390	60,100	44,840
Processed poultry	291,197	305,893	336,802	368,609	366,462
Total	724,619	769,824	837,214	908,598	867,425

£'000	2013	2014	2015	2016	2017
Fresh/frozen poultry (incl. offals)	956,793	1,020,954	1,035,501	1,123,387	1,125,778
Salted poultry	103,090	113,318	112,304	107,910	86,397
Processed poultry	848,425	888,716	913,962	982,948	1,040,761
Total	1,908,308	2,022,987	2,061,766	2,214,245	2,252,935

Data as at February 2018
Source: IHS Maritime and Trade - Global Trade Atlas® / HMRC

Fresh breast tends to be favoured by UK consumers, retailers and caterers. Chicken is also considered to be a footfall product, and around a third of fresh breast meat is sold on promotion in the UK,[46] whilst processed poultry meat, which is cheaper, tends to be used in the food service sector (such as schools and hospitals) and food manufacture. Processed poultry meat is also increasingly found in convenience products, ready meals and at fast-food retailers.[47]

4. About UK Food & Values

Values are an inherent and complicated feature of everyday life, helping to frame how people act and feel. The idea that human behaviour is based on purely rational decision making is flawed. In fact, psychological research indicates that individuals make decisions based on a complex interaction of values, beliefs, emotions, social norms and environmental factors. This research highlights that:

- Values are shared by everybody. Whilst values may differ in how important they are to individuals, they are common across the globe.
- Values matter. They shape individual's identities, behaviours and prejudices.
- Values can be engaged by experience and language. In doing so certain values can become temporarily prioritised.
- Values are shaped by society and grow through reinforcement. They are not set in stone. Through public, policy and media reinforcement values can grow stronger.[48]

Research in social psychology suggests a number of strong links between values and food. Food can be a source of energy, temptation, culture and connection to the environment amongst others. Food related decisions are based on demographic factors, family influences, health considerations, ethical concerns, habits, prices and more.[49]

4.1 What we value about food, and why

So what values do UK consumers hold in relation to food? The British public's attitudes about food are regularly polled by Government agencies and the food industry, offering us unique insights into the mind of consumers. A review of these surveys and reports highlights a number of values that are commonly expressed:

1. Quality, health and safety are the top priorities for consumers

A 2016 report by the Foods Standards Agency (FSA), which polled over 1,400 UK consumers, found that consumers want good quality food that supports consumer health and to be provided with continued access to safe and healthy food.[50] The FSA's 2016 tracker of consumer attitudes also highlighted that such concerns about safety were the most prominent amongst British shoppers, with 86% of the sample flagging it as an issue.[51] These findings are supported by a 2011 DEFRA study into food attitudes[52] and a 2015 British Social Attitudes Survey of over 3,000 consumers.[53] Both studies found that health and quality was the top priority for 82% and 83% of individuals surveyed.

For 69% of respondents in the British Social Attitudes Survey it was important that food had not gone through a lot of processing in order to be considered high quality.[54] Whilst 44% of participants in the FSA's 2016 tracker highlighted that animal welfare was an important consideration in evaluating the quality of the food they ate.[55]

Another 2016 FSA report highlighted that there was rising concern about the use of antibiotics, hormones and steroids in foods.[56] In the same vein, following news coverage of potentially importing chlorinated chicken (should a free trade agreement with the US be agreed post-Brexit), a poll by the Independent in April 2018 revealed that 82% of the public want to keep the UK's high standards ahead of reaching a favourable trade relationship.[57]

2. The provenance of food and eating British

Consumers often equate the quality of the food they eat with where the food comes from. There is evidence to suggest that they feel their food system is increasingly becoming opaque, that they are losing connection with where their food comes from and how it gets to their tables.[58] As a consequence, consumers highlight that this loss of connection could be leading to wasteful consumption, adding to environmental degradation,[59] and that 'awareness raising' is necessary to fill this information deficit.[60]

Numerous studies demonstrate this. A 2014 Red Tractor study found that 90% of consumers said it was important to support British farmers, and 84% reported that they would buy food if it was sourced from the UK.[61] A 2018 survey by Young's Seafood[62] and a Morrisons' commissioned YouGov poll[63] found that approximately 70% of consumers would choose British-made food if given the choice.[64] Research by Beacons also found that a quarter of individuals would spend as much as 25% more on British food, with 50% willing to pay up to 10% more.[65] In general, the reasons given for this were: a desire to support British farmers and the local economy; a perception that British produce was fresher and of higher and more reliable quality; a greater level of trust in animal welfare and production standards; and lower environmental impacts due to fewer 'food miles.'[66]

3. Good food should be available to everyone

Participants in the various surveys have consistently rejected the idea that high-quality food is only something that a specific social group should be able to afford. They expressed anxiety that food is becoming a 'class issue', increasing the divide between the 'haves' and 'have nots' in the type of food they consume.[67] They worry that this trend might continue in the future, creating a 'two tier food society'.[68] Respondents value low cost, affordable food that keeps its high standards.

4. Sustainability

Consumers want a food system that is environmentally efficient and sustainable. Respondents put a high value on carbon reduction, biodiversity enhancement and preventing environmental degradation. For example, protecting the stability of UK soil was a key environmental determinant for participants in a 2016 FSA study.[69]

These consumer values are mirrored in the British Poultry Council's (BPC) 'Manifesto of Great British Values'.[70] It states that it is time for Britain to go beyond the application of regulations, to articulate pride in homegrown food and the values that go into making it. It makes clear that from farm to fork and from processing plant to export, the poultry meat industry has a strong track record of feeding the nation and embodying the values British consumers demand from food. The BPC's values cover their role as food producers within the economy, as employers within communities, and as an organisation benefitting society. Their manifesto values are:

- Wholesome, nutritious & safe food. Supporting the BPC's 'farm to fork' model.
- World-class bird health & welfare. Leading the way in sustainable use of antibiotics, reducing routine use by 71% since 2012.
- Production that protects the environment.
- Affordable & available for the average consumer.
- Sustainable, secure & trusted supply chains.

GREAT BRITISH FOOD VALUES

WHOLESOME, NUTRITIOUS & SAFE FOOD

WORLD-CLASS BIRD HEALTH & WELFARE

PRODUCTION THAT RESPECTS THE ENVIRONMENT

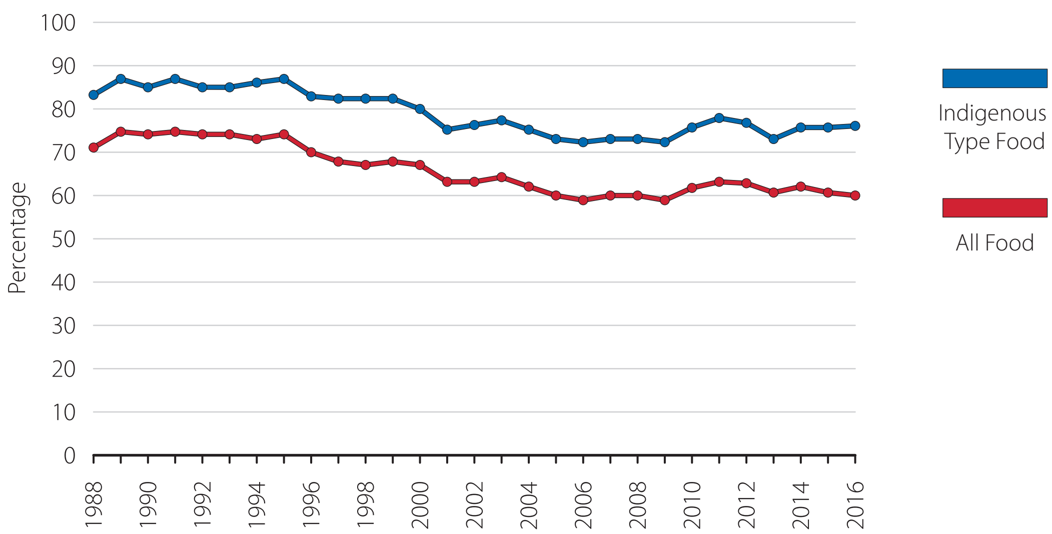
AFFORDABLE & AVAILABLE FOR THE AVERAGE CONSUMER

SUSTAINABLE, SECURE & TRUSTED SUPPLY CHAINS

4.2 Why feeding ourselves British is a good thing; economic and societal benefits

Food security is a key national priority. The Cabinet Office regularly reviews the resilience of the food sector, to ensure consumers have access to the wide range of fresh, reliable and affordable foods they have become accustomed to. The Government has met this requirement by ensuring British companies and consumers can purchase food from abroad should they so need. This policy has its history in the 19th century Corn Laws, when Britain became increasingly reliant on colonial countries for its food. After the World Wars, the UK rebuilt its domestic food supply which reached its zenith in the 1980s.[71] Since then, and following Britain's entry to the EU, the UK's food system has become highly Europeanised and UK domestic production has slowly declined.

Figure 4: UK Food Production to Supply Ration (% of 'self-sufficiency'), 1988-2016



Source: DEFRA (2017)

As figure 4 illustrates, at present the UK is approximately 61% self-sufficient for indigenous foods.[72] This figure is similar for the poultry meat industry, which imports about 40% of the poultry meat the UK consumes.[73]

Proponents argue the advantages of prioritising home-grown produce. These include:

- Increased resilience, i.e. access to local food cushions against trade interruptions, such as transport disruptions, production disruptions, currency fluctuations[74] or Brexit. This is becoming increasingly important as a result of climate change. With the globalised food system concentrating food production in a few highly productive 'breadbaskets', and climate change leading to more frequent and extreme weather, there is a risk that instances of severe drought could compromise these areas that traditionally supply food.[75]
- Increased quality. Self-sufficiency can lead to higher-quality produce, due to locally governed welfare and quality standards.
- Increased trust. As the polling in section 4.1 highlights, consumers like to know where their food originates and being self-sufficient increases 'farm to fork' transparency and traceability.
- Increased positive externalities. The public also like to support locally sourced products, as it benefits the UK economy, jobs, infrastructure and the countryside.[76]

Many of these benefits apply to prioritising the production of fresh British chicken. British standards for poultry meat production, such as Red Tractor chicken, are amongst the highest in the world,[77] the poultry industry employs over 87,700 people, and it contributes £4.6bn GVA to the UK's GDP.

Whilst self-sufficiency for poultry meat is appealing it should not be the UK's aim. It would be inordinately costly, considering all the extra land and labour that would be required. Poultry meat production is also dependent upon complex supply chains, feed supplies and the manufacture of machinery and fertilisers, all of which demand huge amounts of energy that does not come cheap.[78] Becoming self-sufficient would also likely cause environmental degradation, due to the intensive use of marginal land. These costs would then have to be passed on to the consumer, likely leading to increased food prices, as well as limited choice.[79]

Nor is self-sufficiency realistic. Even during WWII, Britain failed to achieve full domestic production despite the 'Dig for Victory' campaign.[80] The British population is growing and there is a huge demand for non-domestic produce. So, whilst it would technically be possible, a report by the National Farmers Union (NFU) concluded that self-sufficiency would demand drastic shifts in what we ate, 'away from stimulant crops, animal products and certain types of fruit and vegetable, which may not be feasible or acceptable'.[81]

Furthermore, self-sufficiency should not be confused with food security. As Lightfoot et al. argue, genuine food security is achieved through diversifying supply and diversifying the transport network through which food is brought to the UK.[82] A strong economy contributes to the UK's food security, creating incomes which allow consumers to buy a range of foods from across the globe. Being open to trade and not blinkered by domestic production, is an integral part of the UK's food security, allowing us to overcome trade disruptions wherever they occur. Reliance on home-grown production could actually reduce the UK's food resilience, leaving the UK more exposed to poor domestic harvests.

Despite assurances from the Cabinet Office that 'the UK Food sector has a highly effective and resilient food supply chain, owing to the size, geographic diversity and competitive nature of the industry',[83] there have been a few warning signs that UK food security is more vulnerable than first thought. In 2000 the UK's petrol supplies were seriously disrupted within 24 hours, by a few hundred delivery drivers[84] and this summer, a shortage of CO2 which is used in the stunning and packaging of poultry meat, highlighted the UK's dependence on EU suppliers.[85] The UK must build on its food resilience by strengthening its supply chains, instead of disrupting them and allowing Brexit to lead to similar occurrences.

This section is intended to highlight that we think British poultry can meet our needs and our values at first instance, but that becoming completely self-sufficient is unnecessary. It is important that our access to food remains resilient and secure by increasing home-grown production, but this must be balanced with our values for sustainability and access to affordable produce. The UK must therefore trade to balance these competing value sets, but as the next section makes clear, no tariff or 'no deal' Brexit threatens our ability to trade and threatens the values we hold about food.

5. Post-Brexit Challenges

THE CURRENT STATE OF BREXIT NEGOTIATIONS

In July 2018 the Government published its White Paper on the future relationship with the EU, putting into effect the Prime Minister's 'Chequers Plan'. The White Paper proposes to create a new FCA[86] which offers a free trade area for goods, including agri-foods, establishing a 'common rulebook' and making the choice 'to commit by treaty to ongoing harmonisation with EU rules on goods.'[87] These rules include the standards set for the protection of human, animal and plant health and the White Paper includes a commitment to maintaining high standards in the future.[88]

However, passing these proposals through parliament looks increasingly challenging. In creating a 'common rulebook' for agri-goods, the White Paper cedes that the ECJ may perform a role in interpreting these EU rules. This is unlikely to prove acceptable to ardent Brexiteers in the European Research Group, who wish to repatriate powers back to UK courts and who view regulations governing agriculture and food as 'unnecessary baggage'.[89] Given this, plus the resignation of cabinet ministers following the unveiling of the Prime Minister's new plan and opposition from across the chamber, the parliamentary arithmetic could prevent this bill from passing in the autumn.

Even if it does pass, whether the EU would accept these new proposals remains unknown. The White Paper offers no new plan for immigration and free movement of labour. There is no commitment to a more generous system of visas for EU over non-EU workers, let alone a modified version of free movement. The White Paper also lacks any detail on the Irish border dimension which remains the most significant sticking point for reaching a deal on the Withdrawal Agreement. Unless the EU is willing to move beyond guaranteeing the free movement of goods, capital, services, and labour, these proposals will likely be unacceptable to the EU. Michel Barnier, the EU Commission's chief negotiator, has indeed stated that such a Brexit plan would undermine the European Single market and legal order.[90] He expressed the opinion that the core facets of the Prime Minister's 'Chequers Plan' created problems for the EU:

> 'The UK wants to keep free movement of goods between us, but not of people and services. And it proposes to apply EU customs rules without being part of the EU's legal order. Thus, the UK wants to take back sovereignty and control of its own laws, which we respect, but it cannot ask the EU to lose control of its borders and laws.'[91]

On the 27th July, Mr. Barnier also seemed to rule out another key aspect of the White Paper. He said the EU could not agree to let another state collect European custom duties on its behalf:

> 'The EU cannot and will not delegate the application of its customs policy and rules, VAT and duty collection to a non-member who would not be subject to the EU governance structures [. . .] Any customs arrangements or customs union – and I have always said that the EU is open to a customs union – must respect this principle.'[92]

Given these comments, reaching an agreement will require further concessions from the UK. The timetable for the withdrawal negotiations is tight and concluding a deal before March 2019 is ambitious. The window for negotiations is around three to five months, to allow time for UK Parliamentary scrutiny and ratification by the European Parliament and Member States. The EU and UK see mid-November as the end date for divorce. Should an agreement not be reached in this time, trade between the UK and the EU would automatically apply WTO rules.

A 'no deal' scenario is now being prepared for by the EU Commission, as their July 19th paper makes clear,[93] calling on Member States and private EU parties to step up their preparations. On the 23rd August 2018, the British Government also published a series of technical papers setting out its preparations for leaving the EU without a deal.[94] Despite assurances that 'such an acceleration [of publications] does not indicate an increased likelihood of a 'no deal' outcome',[95] this is the first time the UK Government has formally drawn up such plans. 'No deal' is now a genuine consideration.

As a result of the above unknowns, this section outlines the potential economic, social and environmental impacts of Brexit on the UK's poultry meat industry. This report 'stands alone' as a piece of analysis on the poultry meat industry because even if the 'Chequers Plan' is modified, the risks and uncertainties of a 'no deal' exit will remain. This chapter focuses on what a 'worst-case' Brexit looks like, what it could mean for the sector and how this impacts upon the country and British citizens, so that the Government can avoid such a scenario.

5.1 Impact on the economy

This report has utilised economic analysis and modelling undertaken by Informa Agribusiness Consulting for the National Farmers Union (NFU). This examined the UK's fresh broiler sector, to provide an analysis of the economic impacts of Brexit.[96]

The scenarios:

To illustrate the uncertainty Brexit has created, we examine three possible scenarios for the UK post-Brexit. These scenarios have been chosen for analytical consistency, using the same ones designed by the House of Commons Environment, Food and Rural Affairs Committee in their report 'Brexit: Trade in Food'[97] and those used by the Agricultural and Horticultural Development Board (AHDB)[98] and the NFU,[99] in their modelling of post-Brexit assessments for various farming industries. The scenarios were designed to outline the possible range of outcomes for Britain's economy upon departing the EU.

These scenarios are not intended to act as predictions, they simply set out a structured framework through which one can understand the differing consequences of Brexit, dependent on what the UK negotiates with the EU by the end of the transition period for withdrawal. The scenarios are listed in order of best to worst outcome for the UK's poultry meat industry.

Scenario 1: Evolution

This scenario represents the closest outcome to the status quo. Single Market membership would be replaced by an FTA between the UK and the EU. There would be no restriction on migrant labour, but there are likely to be additional costs associated with trading because an FTA does not offer the same advantages of a single legal operating framework that a single market does. For example, there would be additional delays due to the introduction of checks to ensure regulatory equivalence, including at slaughterhouses, and border inspections that do not currently exist, and this would increase the costs of trading.

In line with the evidence in the literature, Informa Agribusiness Consulting used a figure of 5% to reflect the loss of completely frictionless trade with the EU and a cost of 8% to represent trade friction with the rest of the world.[100]

Table 3: Impacts of Scenario 1: Evolution

Variables	Scenario 1: Evolution
Labour Cost	• Supply retained at current level • No change to labour costs
Trade relationship with EU	• Comprehensive FTA enabling tariff-free trade between UK and EU • Increase of 5% in trade friction in an FTA
Trade relationship with non-EU states	• WTO rules apply • UK has access to a share of the EU's existing WTO tariffs and agrees FTAs with third countries which already have FTAs with the EU • Trade friction costs of 8% with non-EU states

The LSE and Arla's recent report 'The impacts of Brexit on the UK dairy sector', highlights that these costs could be even higher.[101] They identify the risk of asking the UK's new Customs Declaration Service to handle a predicted 250 million declarations a year post-Brexit, when it was only designed to process 150 million per year. They outline how such a rise in customs inspections at UK ports could lead to increased costs of imports, with even a seven-minute additional wait for each inspection creating an extra 10-hour delay - at an extra cost of £111 per container.[102] Further costs are also expected for products of animal origin (POAO) such as poultry meat, which will be subject to additional border checks, that the current posts might not be equipped to carry out. The report also states that veterinary costs are likely to increase, as the workload for border vets is set to surge by 372%.[103] This research is bolstered by Dover Council's recently leaked internal report, assessing the impacts of Brexit on the Port of Dover and the Channel Tunnel.[104] They estimate that there could be an additional 300 million declarations a year through the Port of Dover alone, and that the infrastructure does not exist to handle the checks. For example, it does not have the required Border Inspection Posts necessary to examine the safety of POAO for human consumption.[105]

Despite this, the status quo scenario has the least impact on the cost of a broiler bird for the producer (See Table 4). It represents the best-case scenario for the UK poultry meat industry and ultimately the UK consumer.

Table 4: Broiler price change in Scenario 1: Evolution

	Whole Carcass	Breast meat	Dark meat	Weighted average
Scenario 1: Evolution	+ 3.85%	+ 3.85%	- 14.07%	+ 0.49%

Note: weighted average is 25% of average producer value from carcass, 56% breast and 19% dark meat (75%/25% split between breast meat and dark meat value after allowing for sales as whole carcass)

Source: Informa Agribusiness Consulting (2018) Brexit scenarios: an impact assessment for the broiler and egg sectors. Final report for National Farmers Union (NFU). Author: Dr Dylan Bradley

An analysis of the price changes across the three scenarios is discussed in Table 9.

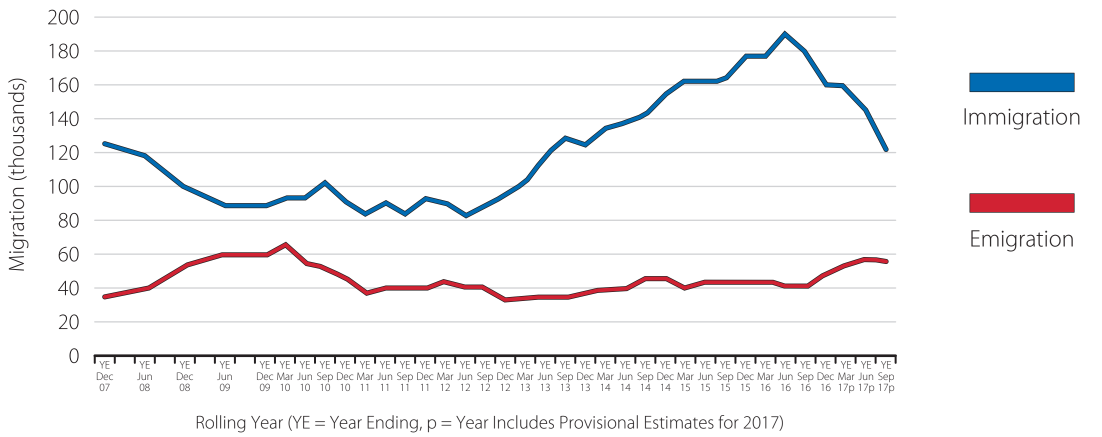
Scenario 2: Trade Liberalisation

This scenario, where the UK leaves the EU without a trade deal (reverts to WTO terms) and then unilaterally removes tariffs on all imports from the EU and the rest of the world, also takes into account the increased trade friction costs explained above. In this case 8% for all trade, reflecting the higher costs which result from not being part of an FTA. Again, this figure is drawn from the available literature for analytical consistency.[106] We also make the same assumption that these frictional costs will apply to UK exports along with the WTO tariffs.

The key difference with trade liberalisation, and with the Fortress UK scenario below, is that the costs of labour are likely to increase upon removing the EU's free movement of labour provision. An increasing body of economic analysis indicates that restricting migrant labour in this way will result in increasing labour costs. The workings of the market will lead to higher wages being paid to both UK and migrant workers, as supply is restricted.

This is already the case according to the poultry industry. As the migrant labour market has tightened post-Brexit, labour costs have already jumped by 25% in the broiler sector.[107] This is unsurprising considering that net migration to the UK from the EU has nearly halved since the referendum (Fig. 5).[108]

Figure 5: Work-related Migration from the EU



Source: International Passenger Survey Estimates, ONS

Anecdotally this trend has been confirmed by the sector. Patrick Hook, Director of PD Hook Hatcheries has warned that the labour shortage, because of Brexit, 'is a bigger threat to us as a business and industry than avian influenza. That is a fact'.[109] In the same Panorama interview he complained that his business has between 50-60 vacancies across the UK that they cannot fill, and he believes that raising wages above the national living wage will not be enough to attract UK workers.[110] This is supported by recent research from the Chartered Institute of Personnel and Development, who found that UK businesses are suffering from a 'supply shock' of fewer EU workers available to fill vacancies. In their survey of 2,000 employers, half reported significant recruiting difficulties and had increased salaries in response.[111]

We therefore adopt Informa Agribusiness Consulting's findings that there will be a 50% increase in the cost of permanent labour, based on the prediction that this is the figure necessary to attract UK workers from alternative occupations into the poultry sector to replace lost migrant workers.[112] This percentage is based upon an analysis of the difference between wages in the agricultural sector (Farm Business Survey data) and the construction and manufacturing sectors (ONS data), which showed that wages in the farming sector would have to rise by 52% to meet the average wage in construction/manufacturing industries.[113] This figure was corroborated by Informa using data from the horticultural sector.[114] This theory relies on the assumption that such an increase in wages will attract the necessary number of workers. In reality, it is a tight labour market and a premium may be necessary to compensate for what many see as hard-working conditions in the poultry meat industry.

Table 5: Impacts of Scenario 2: Trade Liberalisation

Variables	Scenario 2: Trade Liberalisation
Labour Cost	• Non-UK labour restricted to 50% of current levels for permanent positions • Retained at current level for seasonal workers • 50% increase in permanent labour costs
Trade relationship with EU	• No trade deal between the UK and the EU • UK-EU trade relationship the same as with non-EU states • UK unilaterally removes import tariffs from agricultural products • Trade friction costs of 8% to reflect lack of an FTA
Trade relationship with non-EU states	• WTO rules apply although UK removes all import tariffs for agricultural products • Trade friction costs of 8% to reflect the costs of trade friction

The resultant impact on the price of broiler chicken is set out below (Table 6), indicating a moderate increase in the price of production. This represents an intermediate economic position for the poultry meat industry, the UK and the British consumer.

Table 6: Broiler price changes in Scenario 2: Trade Liberalisation

	Whole Carcass	Breast meat	Dark meat	Weighted average
Scenario 2: Trade Liberalisation	+ 6.16%	+ 6.16%	- 14.07%	+ 2.37

Note: weighted average is 25% of average producer value from carcass, 56% breast and 19% dark meat (75%/25% split between breast meat and dark meat value after allowing for sales as whole carcass)

Source: Informa Agribusiness Consulting (2018) Brexit scenarios: an impact assessment for the broiler and egg sectors. Final report for National Farmers Union (NFU). Author: Dr Dylan Bradley

Scenario 3: Fortress UK

Fortress UK or 'no deal' reflects a situation where the UK fails to negotiate a trade deal with the EU and reverts to trading on WTO terms. The UK would maintain WTO tariffs on all imports, including from the EU, and there would be trade friction costs of 8% for the reasons set out above. The Government's August 2018 'no deal' technical notices demonstrate that there will be increased red tape and delays at boarders, due to new customs checks and separate safety and security declarations.[115] The reports also advise businesses that trade with the EU to buy software, invest in warehousing, engage customs brokers, renegotiate commercial contracts and 'consider their role in EU supply chains'[116] – all at vast expense.

The EU Commission's July 2018 paper on preparing for a 'no deal' withdrawal suggests that these trade friction costs could be even higher. The communique states that transport between the UK and the EU would be severely impacted by a 'no deal' Brexit: 'Customs, sanitary and phytosanitary controls at borders would cause significant delays, e.g. in road transport, and difficulties at ports.'[117] At the moment, inspection at ports for imports from the EU only involve paperwork that takes an average of 2 minutes to complete. However, according to reports by Imperial College London and Dover Council simply increasing the delay by 2 minutes, through additional customs and safety checks, would generate lorry queues of more than 17 miles within the first 24 hours.[118]

Under this scenario, migrant labour would also be restricted by 50% for both permanent and seasonal workers. Resulting in a 50% increase in costs for both types of labour, making this one of the key issues for the poultry meat industry.

Table 7: Impacts of Scenario 3: Fortress UK

Variables	Scenario 1: Evolution
Labour Cost	• Non-UK labour restricted to 50% of current levels for permanent and seasonal staff • 50% increase in labour costs for both permanent and seasonal staff
Trade relationship with EU	• No trade deal between the UK and the EU • UK-EU trade relationship the same as with non-EU states, i.e. WTO tariffs • Trade friction costs of 8%
Trade relationship with non-EU states	• WTO tariffs • Trade friction costs of 8%

Fortress UK represents the worst-case scenario for the poultry meat sector, leading to a massive increase in the costs of production which could eventually be passed on to the consumer through a hike in the price of fresh UK chicken (Table 8).

Table 8: Broiler price changes in Scenario 3: Fortress UK

	Whole Carcass	Breast meat	Dark meat	Weighted average
Scenario 3: Fortress UK	+ 10.87%	+ 26.85%	- 14.07%	+ 15.18%

Note: weighted average is 25% of average producer value from carcass, 56% breast and 19% dark meat (75%/25% split between breast meat and dark meat value after allowing for sales as whole carcass)

Source: Informa Agribusiness Consulting (2018) Brexit scenarios: an impact assessment for the broiler and egg sectors. Final report for National Farmers Union (NFU). Author: Dr Dylan Bradley

The impact of the carcass balance on production price changes

The price issue is made more complex by the carcass balance, detailed in section 3.3, which highlights UK demand for white rather than dark poultry meat - 75% of the value of a carcass derives from breast meat cuts. With IMTA estimating that UK production would have to increase by 124% to meet the current UK demand for breast meat, that would leave a glut of 1.3 million tonnes of dark meat that would need to be exported.[119] Unfortunately, if the UK reverted to WTO terms, it would be difficult for the UK to export these dark cuts because it would not be price competitive with other exporters. European states, like Germany and Poland, would be able to supply the Eastern European countries that purchase dark cuts at a much lower cost, as they remain part of the single market and therefore do not incur trade friction costs. The US is a major exporter of dark meat to the global market and is far more price competitive than the UK because it applies lower animal welfare and environmental standards.[120]

Table 9: Broiler price changes under all 3 scenarios

	Whole Carcass	Breast meat	Dark meat	Weighted average
Scenario 1: Evolution	+ 3.85%	+ 3.85%	- 14.07%	**+ 0.49%**
Scenario 2: Trade Liberalisation	+ 6.16%	+ 6.16%	- 14.07%	**+ 2.37%**
Scenario 3: Fortress UK	+ 10.87%	+ 26.85%	- 14.07%	**+ 15.18%**

Note: weighted average is 25% of average producer value from carcass, 56% breast and 19% dark meat (75%/25% split between breast meat and dark meat value after allowing for sales as whole carcass)

Source: Informa Agribusiness Consulting (2018) Brexit scenarios: an impact assessment for the broiler and egg sectors. Final report for National Farmers Union (NFU). Author: Dr Dylan Bradley

However, as indicated in Table 9 above, it is predicted that there will be the same drop in the price of dark meat in all three scenarios, because the impact of tariffs and frictional costs will leave UK exports of dark meat uncompetitive in every post-Brexit scenario. This glut of exportable dark meat would increase the surplus in the UK and put downward pressure on the price of dark cuts. As producers would fail to make the same returns on these dark cuts, they would need to cover production costs from the sales of breast meat alone - resulting in a necessary increase in price.

As discussed in more detail in section 5.2, should these price increases be passed on to the consumer a proportion of the population could find themselves priced out of the market for fresh chicken. As this section of the market is served by higher standard UK broiler production, a two-tier food market may develop where only the relatively affluent can afford to purchase high standard fresh chicken whilst those less well-off are forced to purchase preserved chicken that is cheaper, imported from the world market, and produced at lower standards. As the next section makes clear, this goes against everything British consumers value about food.

The rest of this report outlines the impacts of a 'no deal', the worst-case scenario for consumers of poultry meat and its effect upon the environmental sustainability of the sector.

5.2 Impact on values

The prospect of the UK leaving the EU without a 'deal' increases by the day. The Foreign Secretary, Jeremy Hunt, recently warned that he was 'very concerned that as things stand at the moment we are heading for a "no deal" by accident'.[121] A 'no deal' Brexit risks damaging not only the poultry industry, the economy and raising the price of chicken, but it also threatens the values we hold as UK consumers and those we associate with eating British produce. UK food producers and consumers are passionate about safe, high-quality, affordable and secure food for the country. But Brexit presents an unprecedented challenge to the quality, availability, affordability and choice of poultry meat in the UK.

Lower standards

The UK has some of the highest health, environmental and welfare standards in the world. British farmers have toiled hard to supply food at the price and quality that consumers want, ensuring high standards from farm to fork.[122] This 'farm to fork' model for poultry consumption operates according to the EU's strict food chain controls that minimise the risk of contamination at each stage of production.[123] EU standards exceed the baseline established by the Codex Alimentarius which underpins WTO food quality standards. EU standards do not demand evidence of demonstrated harm, but follow a higher standard called the Precautionary Principle.[124] Dominic Raab (the Secretary of State for Exiting the European Union) has suggested that the UK may unilaterally recognise EU food standards and pursue equivalency arrangements on food regulation in the event of a 'no deal' scenario. However, whilst the UK can promise to replicate EU regulations, there is no guarantee that the EU will respond in kind. To achieve this would involve agreeing some form of a 'deal', which would not be possible in a 'no deal' scenario.

Should the UK fail to agree an FTA with the EU and unliterally remove tariffs for all trade partners (Scenario 2) or 'no deal' (Scenario 3), there is a danger that UK consumers will be faced with cheaper poultry meat imports from non-EU states where the food standards are less stringent. Some consumers may not be willing or able to pay for more expensive, but higher standard British chicken.

The EU Energy and Environment Sub-Committee's 'Brexit: farm animal welfare' inquiry highlighted concerns about importing food from countries with lower standards. The report states that 'as the Government presses ahead on negotiating bilateral Free Trade Agreements with other (non-EU) countries, it could be tempted to allow imports of cheap products, produced to lower standards than our own, in an effort to keep a lid on food price inflation'.[125] The AHDB have warned that if a WTO, 'no deal' or 'free trade' ambition is pursued 'it will be difficult to stop the UK market from being flooded with imports produced to different and by inference, lower welfare standards'.[126]

CASE STUDY: CHLORINATED US CHICKEN

Chlorinated chicken from the US has become a particular area of public concern, following much media scrutiny of the Government's determination to pursue 'big trade deals' with the USA post-Brexit. Favourable US access is a much-coveted prize for post-Brexit Britain, and although Ministers insist standards won't be lowered,[127] Wilbur Ross (the US Secretary of Commerce) has made clear abolishing EU health and safety standards is essential for any UK-USA trade deal.[128]

The issue for the UK and the poultry meat industry is that US food standards are in many respects lower than in the EU and the UK. In particular, it is a legal requirement in the US to wash or spray poultry carcasses with chlorine dioxide before being offered for sale, to reduce bacterial contamination. This process was banned in the EU in 1997 due to concerns surrounding hygiene and the fact it could encourage farmers to relax overall standards, leading to lower animal welfare.[129] It has also been argued that washing chicken with chlorine is not an effective treatment, it only disinfects the surface and not the interior of the bird, which can remain contaminated.[130]

More recently, microbiologists at the University of Southampton have found that spraying vegetables with chlorinated water did not reduce the presence of bacteria such as listeria and salmonella, bringing the danger of disinfecting chicken in the same way back into the public eye. The research found that chlorine washing does not kill off bacteria but instead changes them into a 'viable-but-nonculturable state', which means they remain infectious but undetectable to conventional cultures tests.[131] These findings highlight the increased public health risks associated with increasing our consumption of US chlorinated chicken, and it may go some way to explaining why the rate of food poisoning is nearly 10 times higher in the US than the UK.[132]

Furthermore, critics argue that the process of chlorine washing chicken is detrimental to public health because it contains the chemicals chlorite and chlorate, which in high enough doses can damage humans.[133] Although the levels typically used in chlorine washing are not this high and thus toxic, experts believe it can cause carcinogens like trihalomethanes and semicarbazide in high concentrations.[134]

In addition to chlorine washing, the American poultry industry is highly unregulated compared to the EU and UK. Flocks of poultry in the US are kept at far greater densities, which leads to higher rates of infection.[135] Another US practice that is little known by British consumers is the use of 'chicken litter', where chicken faeces are mixed with poultry bedding, as an ingredient in poultry feed products.[136]

A joint investigation by the Bureau of Investigative Journalism and the Guardian in early 2018 also uncovered thousands of hygiene violations in the US.[137] The investigation revealed a catalogue of failings in poultry meat factories, recorded in unpublished US Government reports by the Food Safety Inspection Service. The same investigation uncovered frequent breaches in 24 factories run by one of America's biggest poultry producers, Pilgrim's Pride. Over 36,000 violations were recorded between 2014 and 2016. The breaches concerned, 'dirty chicken, soiled with faeces or having been dropped on the floor, being put back into the production line after being rinsed with chlorine; diseased poultry meat – that had been condemned – found in containers used to hold eligible food products; meat destined for the human food chain riddled with faecal matter and abscesses filled with puss', amongst others.[138] Although this investigation only uncovered findings from a snapshot of US poultry producers, they offer a chilling insight into US hygiene practices and experts warn this could represent the 'tip of the iceberg'.[139] Again these findings highlight the potential risk to British consumers of a worst-case scenario Brexit and a future free trade deal with the US.

At the minute, imports are not allowed into the UK because EU regulation does not allow chemical washes. The carcass balance and consumption preferences in the US are similar to that of the UK, with a high domestic demand for breast meat, meaning there is little spare capacity to export abroad. At present this would mean that the above impacts would have less of an effect on the UK. However, some of the US' most powerful lobbyists in the food industry have made it clear that they want chlorinated chicken to be part of any future free trade deal with the UK, suggesting they would increase production to meet UK demand.[140]

Given the less rigorous nature of US food standards, increasing the consumption of US poultry meat in a worst-case Brexit scenario would threaten the health, safety and hygiene standards of poultry meat available in the UK. These values are important to British consumers and must not be sacrificed by Brexit. A recent poll by the Institute of Public Policy Research proves that individuals are willing to cancel a post-Brexit deal with the US, to protect the UK's high food and welfare standards.[141] As the BPC have made clear, we cannot allow 'cleaning up at the end' or taking short-cuts when it comes to producing safe food'.[142]

Two-tier food Britain

The UK could increasingly become a food divided country in the event of a 'no deal' Brexit. As section 5.1 (economic impacts of Fortress UK) suggests, disruption to the poultry meat industry would increase the costs of production for farmers. When these costs are passed on to the consumer through higher prices, this could leave low-income consumers unable to afford fresh British chicken. Instead they would have to rely on preserved meat imported from countries like Brazil and Thailand, which is cheaper, but produced to lower standards. This could create a two-tier food system, where only the wealthy can afford to eat fresh home-grown high-standard chicken. As polling indicates, this flies in the face of the values Britons hold about the affordability and availability of their food. Food banks are now more prevalent than ever;[143] a worst case 'no deal' Brexit would impact our 'food poor' the hardest and increase the gap between rich and poor in the UK.

It is important to remember here, the distinction between fresh and processed poultry meat (as discussed in section 3.3). At the minute, it is argued that these two markets are largely disconnected and prices in one market do not have a major impact on the other.[144] It is held that non-fresh, processed products are not considered direct substitutes for fresh chicken by most consumers,[145] and that 'considerable price changes would be required before import substitution could become viable'.[146] We use the predicted production price increases in a 'no deal' (Fortress UK) scenario, to argue that this could be the point at which the price of fresh chicken breast becomes so high (accompanied by decreases in consumer prices of imported processed products due to lower tariffs) that a proportion of consumers will switch to imported processed chicken, thus creating a two-tier food system in Britain. The issues with this are threefold:

1. Loss of choice

An increase in the cost of fresh chicken would prevent a section of the public from having a choice about what type of food they could consume. The least well off would only be able to afford processed chicken, instead of having the choice to eat higher standard fresh breast meat. This forgoes a key social value, maintaining the affordability and availability of food, for the most vulnerable in our society. It would also restrict their ability to eat British produce and support local producers, which our research suggests is another important determinant in valuing what we eat.

2. Lower standards

The majority of the UK's processed poultry meat imports come from Brazil and Thailand (Table 10).[147] At the moment the EU operates a strict policy of spot checks on imports, however there are worries that the standard of the processed chicken from these countries could deteriorate if demand for cheaper processed chicken from them rises.[148]

Table 10: The 5 leading countries of origin for poultry meat imports by the UK in 2015

Fresh and frozen products			Processed products		
Country of origin	Imports	Share (%)	Country of origin	Imports	Share (%)
Netherlands	190.5	43.5	Thailand	127.2	37.8
Poland	65.6	15.0	Brazil	42.2	12.5
Ireland	38.1	8.7	Netherlands	39.8	11.8
Germany	31.7	7.2	Ireland	31.5	9.4
Belgium	30.8	7.0	Poland	25.7	7.6
5 countries	356.7	81.4	5 countries	266.4	79.2*
Total	438.2	100.0	Total	336.4	100.0

* Sum does not add because of rounding.
Data in 1,000t products weight

Source: AHDB 2015, AHDB 2016

There are worries about the standards of the poultry meat being exported from Brazil. In March 2017, a corruption probe uncovered instances where members of the industry had bribed officials to ignore shipments of contaminated product.[149] Prior to this, research on imports from Brazil into the EU through the port of Hamburg between 2014/15 found that 50.6% of broiler meat from Sao Paulo showed traces of salmonella,[150] whilst a study of poultry meat imports into Sweden by Egervärn et al. found that 'ESBL or transferable AmpC beta-lactamase (pAmpC)-producing E. coli at a high prevalence (95%) in poultry meat imported predominantly from Brazil'.[151] The South African Poultry Association also questioned Brazilian poultry standards following a listeriosis scare that lead to 180 deaths in March 2018 – the worst ever outbreak according to the WHO.[152] They were particularly concerned about chicken that was found to have been thawed and then refrozen, a process that allows for higher levels of bacteria.[153]

In May this year the EU therefore withdrew export authorisation from 20 Brazilian poultry factories.[154] These instances highlight the risks linked to increasing imports of preserved chicken from Brazil. A 'no deal' Brexit could thus create a situation where the relatively affluent can afford to buy high standard fresh British chicken, whilst the poor can only afford at-risk imported poultry meat.

In addition to safety concerns, there are worries that labour standards are poor in Thailand and that importing more poultry meat from there would lead to increases in instances of human trafficking. A joint investigation by Swedewatch and Finnwatch, who monitor the impact of Swedish and Finnish companies on the environment and human rights, found that workers from Cambodia and Myanmar are exploited by Thai poultry producers.[155] Their research found that migrants had their passports confiscated, faced child labour, substandard wages, forced overtime, lack of health-insurance, withheld overtime, violence by supervisors, insufficient annual leave, salary cuts, management cover-ups, deportation of pregnant workers, and extortionist recruitment fees putting them in debt-bondage.[156] The International Labour Organisation held that many of these infractions are clear 'indicators of trafficking for labour exploitation'.[157] A worst-case scenario, Fortress UK Brexit could therefore lead to a situation where one section of British society is able to purchase the highest standard fresh poultry meat, that meets British values. Whilst low-income consumers are forced to consume processed chicken that has been produced by indentured labour.

3. Regulatory burden

The reliance of the UK on pan-European institutions to maintain food regulation has been overlooked by Brexiteers. Since the early 2000s the UK has depended on an EU-wide food safety system that included the formation of the European Food Safety Authority in 2002.[158] This framework ensures the traceability of high-risk products and provides rapid access to intelligence about contamination.[159] These have been important in protecting consumers in the UK. For example, in 2017 it was the EU's rapid alert-system that detected bacterial contamination of poultry imports from Brazil.[160]

EU legislation also requires in-country veterinary checks which monitor poultry farms in Thailand and Brazil. Their tasks include looking after the welfare of animals throughout farming and slaughter. They monitor the safety and quality of animal feed and they test for disease. They examine the poultry before being sent to slaughter, and then inspect it again before it is cut and packaged. The results are documented and analysed to guarantee continuous safety, welfare and hygiene standards.[161] If the UK wishes to maintain these standards it must stay aligned with the EU or create its own system of quality checks. As Lang et al. make clear, the laws and regulations necessary to do this will have to be negotiated with each individual country that the UK imports from.[162] They estimate that a 'no deal' Brexit could result in having to renegotiate over 4,000 pieces of food regulation and law.[163]

Few realise the depth of integration with the EU to maintain our current standards and values. Creating a new system of veterinary checks will undoubtedly be expensive. But as the Local Government Association's (LGA) report on food safety highlights, at present 'we simply do not have the capacity to increase checks to offset this risk […] unless fully funded'.[164] They also warn that without continued access to EU-wide databases, the UK will lose access to vital intelligence about the origin of food and it will not be alive to rapid alerts issued to the rest of the EU. They argue this will weaken the UK's capacity to protect the food system and it could increase the risk of a new food scandal, like the 2013 horsemeat controversy.[165] The costs and regulatory burden of a 'no deal' Brexit are therefore high. A failure to replicate these regulations will place the safety and values of British consumers at risk. As Lang et al. argue, this is not taking back control, but abandoning it.[166]

CAVEATS

The above analysis of a two-tier food system in Britain is dependent on the elasticity of demand for chicken in the UK, and the assumption that there is perfect price transmission between producers and consumers. We worked with Informa Agribusiness Consulting to investigate these issues. It was agreed that although retailers may not want to pass on the increased cost of fresh chicken to the consumer, logically there would come a point at which retailers would decide to increase prices. This point might be reached in a worst-case scenario.[167] Indeed, supermarket giants warned the Treasury last month that a 'no deal' Brexit would force up the price of an average weekly food basket by as much as 12%.[168]

Furthermore, we carried out an initial investigation into the impact of allowing the substitution of fresh chicken breast for non-fresh alternatives. Using the gravity model utilised by Informa in their research for the NFU and changes in producer broiler prices (Table 11), we simulated the impact of increasing the elasticity of demand for fresh chicken by allowing for a greater range of alternative products. By progressively reducing demand to represent consumers switching from consumption of fresh chicken breast to non-fresh alternatives, it is possible to find the point at which this substitution limits the price increases which are implied by the three scenarios (See Table 12).

Table 11: Broiler price changes under the three post-Brexit scenarios

	Whole Carcass	Breast meat	Dark meat	Weighted average
Scenario 1: Evolution	+ 3.85%	+ 3.85%	- 14.07%	+ 0.49%
Scenario 2: Trade Liberalisation	+ 6.16%	+ 6.16%	- 14.07%	+ 2.37%
Scenario 3: Fortress UK	+ 10.87%	+ 26.85%	- 14.07%	+ 15.18%

Note: weighted average is 25% of average producer value from carcass, 56% breast and 19% dark meat (75%/25% split between breast meat and dark meat value after allowing for sales as whole carcass)

Source: Informa Agribusiness Consulting (2018) Brexit scenarios: an impact assessment for the broiler and egg sectors. Final report for National Farmers Union (NFU). Author: Dr Dylan Bradley

In order to assess the impact on chicken prices, of substitutability between the fresh and non-fresh markets, it was assumed that consumer demand for fresh chicken breast would fall in 5% increments and that this decrease in demand would be at the expense of (higher priced) imports rather than domestic production. Adjusted consumption figures were therefore used in the gravity model, along with the original calculated domestic production figures and calculated weighted average tariffs.

The focus was on consumer prices rather than producer prices, and it is therefore appropriate to focus on the impact specifically on chicken breast (and for simplicity we assume there is perfect price transmission). This is shown in Table 12 below.

Table 12: Impact on chicken breast prices as consumers switch to non-fresh alternatives

	Original baseline	5% substitution	10% substitution	15% substitution	20% substitution
Scenario 1: Evolution	+ 3.85%	+ 3.85%	+ 3.85%	+ 3.85%	+ 1.48%
Scenario 2: Trade Liberalisation	+ 6.16%	+ 6.16%	+ 6.16%	+ 6.16%	+ 1.48%
Scenario 3: Fortress UK	+ 26.85%	+ 20.51%	+ 14.16%	+ 7.2%	+ 1.48%

To place these figures in context, the price changes induced under Scenario 3: Fortress UK are equivalent to changing the elasticity of demand for fresh chicken breast from -0.5 in the original work (i.e. a 10% increase in price would result in a 5% fall in demand) to -0.77 under a 5% substitution, -1.30 under a 10% substitution, -2.64 under a 15% substitution and -15.38 under a 20% substitution. Above a 5% substitution, these are very substantial elasticities. In reality, the price adjustment process (as demand changes) is dynamic and a new equilibrium would be found. Producers would also respond to price signals by increasing or decreasing supply and this would result in further price changes.

Based on this initial investigation into the likely impact of consumers substituting fresh chicken with non-fresh alternatives, and subject to the caveats set out, it is possible to conclude that should price increases be passed on to consumers, it is likely that in a 'no deal' Brexit, a proportion of consumers may find themselves priced out of the fresh chicken market. As this market segment is served by higher standard UK production, a two-tier food market may develop under which the relatively affluent are able to buy high standard fresh UK chicken while other segments of society, out of necessity, buy lower priced, lower standard and further processed chicken products imported from the world market.

A useful contribution to further this debate would be the use of a Choice Modelling exercise to understand consumer attitudes to different chicken products, and to investigate consumer willingness to pay for the higher quality attributes of fresh UK-produced chicken.

5.3 Impact on the environment

A 'no deal' scenario raises concerns about the environmental sustainability of the poultry meat industry. These are felt by consumers and producers alike, who care about the sustainability of the products they consume and produce.

The UK's environmental policies have been profoundly affected by membership of the EU. Since the 1970s the UK has transitioned from being the 'Dirty Man of Europe' to being one of Europe's leaders on environmental policy.[169] Professor Reid, expert on environmental law supports this premise, arguing that 'EU involvement certainly ensured that action was taken on a faster timetable and more thoroughly than would have otherwise been the case'.[170] The UK benefits from being able to draw on the expertise of the European Commission, EU member states and a variety of environmental agencies such as the European Food Standards Agency. The UK is then obligated to provide regular updates to the Commission on how it is meeting its environmental targets.[171] Whilst some argue that international commitments will maintain the UK's environmental welfare, the EU has 'higher standards and tighter timelines' which means other international obligations do not offer comparable levels of environmental protection.[172]

A roll-back of the EU's regulatory net, in a 'no deal' Brexit, would therefore have a significant impact on the environmental sustainability of the UK poultry meat sector. The forfeiture of pooled expertise and access to agencies, would mean the UK losing monitoring, scrutiny, transparency, accountability and enforcement powers for its environmental policies.[173] Or, as Friends of the Earth argue, the regulatory and governance gaps that could arise may lead to the 'zombification' of UK environmental policies – where certain EU policies are retained, but lack the 'underpinning system of governance to give them teeth'.[174] This could be felt in a number of key areas that affect the poultry industry:

- Ammonia regulation

  As a member of the EU, the UK is required to comply with environmental regulations that limit the emissions of ammonia from animal housing, through the Best Available Techniques (BAT) protocols for the intensive rearing of poultry and pigs.[175] These apply nutritional management, animal rearing, and manure standards to approximately 1000 permitted sites across the UK.[176] In the air ammonia is regarded as a serious pollutant due to its capacity to combine with other atmospheric emissions to create PM.25 particles, which are harmful to human lungs.[177] Although the industry has received assurances that the UK will continue to apply BAT post-Brexit, BAT is a moving target on practices and leaving the EU without a deal would mean leaving a framework that has always been a first-mover in advancing techniques.

- Nitrate control

  The EU's Nitrates Directive is the principal tool used for improving water quality, by seeking to reduce nitrates seeping into water bodies.[178] For poultry farmers who are committed to improving water quality and the associated environmental standards, this governs rules around the storage of poultry litter for example. A 'no deal' scenario would require the Government to move quickly to ensure UK regulation maintains environmental protections around issues such as nitrate emissions. As a nation, we cannot fall behind on implementing such environmental safeguards.

- Carbon emissions

  It would be more challenging for the UK to meets its carbon emissions reduction targets. As an EU member the UK has agreed to make contributions towards the EU 2030 target of at least a 40% reduction in emissions below 1990 levels.[179] Although the majority of the UK's climate change policy is administered by domestic instruments, such as the UK Climate Change Act, recent research indicates that leaving the EU's regulatory framework could further damage the UK's carbon and climate change reduction ambitions.

  Firstly, a 'no deal' scenario would mean severing the UK's participation in the EU Emissions Trading Scheme (ETS), disrupting the UK's ability to meet its domestic carbon targets.[180] It is unclear what this will mean for the UK's legacy credits, and there are worries that this could lead to a drop in the cost of carbon as operators sell-off allowances in the lead up to March 2019.[181] Secondly, the EU has worked as a positive external driver, to keep the UK's carbon and climate change initiatives on track. For example, the EU prevented George Osborne from reducing the UK's climate change ambitions when he was Chancellor of the Exchequer.[182] Thirdly, the EU has helped fund infrastructure projects that facilitate low-carbon transition. Since 2000 the UK has received more than €6bn in European Investment Bank loans for low-carbon projects,[183] and under the current EU budget the UK will receive another €5.8bn for projects to tackle carbon emissions and climate change.[184] Leaving without a deal would mean the UK would lose access to such funding.

  There are also worries around increasing the UK's carbon footprint, should imports from countries like Thailand and Brazil rise to meet the demand for chicken in a 'no deal' scenario. If the majority of our imports for poultry switch from the EU to further afield, the UK will have to air-freight and ship poultry meat far greater distances. This will increase the carbon footprint of said poultry products, as well as the UK as a whole. There are also concerns that there could be an increase in traffic around UK ports, leading to increased carbon emissions and the tarmacking of swathes of UK countryside to create lorry parks post-Brexit.[185]

- Antibiotic usage

  Increasing imports of processed poultry meat from non-EU states raises further environmental fears. There are concerns that poultry producers in Thailand are over reliant on pharmaceuticals in their farming practices. A WHO study into antibiotic use in Thai broiler chicken farms found that many used antibiotics that are important in human medicine, posing a danger to the environment and human health worldwide as their use could drive resistance to these drugs.[186] Decreasing the usage of antibiotics is crucial to global attempts to reduce environmental contamination of antibiotics, and the resultant increase in the spread of antibiotic-resistant bacteria.

  In the UK, poultry farmers have reduced their overall antibiotic use by 82% between 2012-2017.[187] However, in Thailand amoxicillin, colistin, doxycycline, oxytetracycline and tilmicosin are used routinely, for prophylaxis in poultry farms. These drugs are considered critically important to human medicines and their overuse could create antibiotic resistant strains.[188] In particular, colistin is considered the last defence to multi-drug resistant bacteria. It is thought that overuse of colistin in livestock production in China has already lead to the creation of the colistin-resistant mcr-1 gene in E.Coli.[189] The EU has rules that only 5mg of colistin is allowed to be used in food-production per population,[190] but in half of the Thai farms surveyed by the WHO the colistin use was 83% higher at 28mg per kg final weight.[191] According to the research, there have therefore been noticeable upsurges in incidences of 'community-acquired antimicrobial-resistant bacterial infection and colistin-resistant bacteria in the stools of healthy people'.[192] Increasing the use of these pharmaceutical practices, to meet the demand for poultry meat in a post-Brexit Britain, could cause an expansion of these resistant diseases.

There are therefore many environmental risks associated with a 'no deal' Brexit. As the negotiating time ticks away and we edge ever closer to such a scenario, it is essential that our environmental policies are protected by new laws and regulations to prevent the harm that would be created by leaving the EU without a deal.

5.4 Summary of post-Brexit Scenarios

Table 13: Analysis of Post-Brexit Scenarios

	Scenario 1: Evolution	Scenario 2: Trade Liberalisation	Scenario 3: Fortress UK
Labour Cost	• Supply retained at current level • No change to labour costs	• Non-UK labour restricted to 50% of current levels for permanent positions • Retained at current level for seasonal workers • 50% increase in permanent labour costs	• Non-UK labour restricted to 50% of current levels for permanent and seasonal staff • 50% increase in labour costs for both permanent and seasonal staff
Trade Relationship with the EU	• Comprehensive FTA enabling tariff-free trade between UK and EU • Increase of 5% in trade friction in an FTA	• No trade deal between the UK and the EU • UK-EU trade relationship the same as with non-EU states • UK unilaterally removes import tariffs from agricultural products • Trade friction costs of 8% to reflect lack of an FTA	• No trade deal between the UK and the EU • UK-EU trade relationship the same as with non-EU states, i.e. WTO tariffs • Trade friction costs of 8%
Trade Relationship with non-EU States	• WTO rules apply • UK has access to a share of the EU's existing WTO tariffs and agrees FTAs with third countries which already have FTAs with the EU • Trade friction costs of 8% with non-EU states	• WTO rules apply although UK removes all import tariffs for agricultural products • Trade friction costs of 8% to reflect the costs of trade friction	• WTO tariffs • Trade friction costs of 8%
Food Standards	• Retained at current level	• At risk unless EU regulations for monitoring food standards are maintained	• Reduced when demand is met with the import of poultry meat from non-EU states with lower standards • At risk of creating a two-tier food system • Undermines British food value of availability, affordability and high-quality of produce for all
Environmental Impact	• Retained at current level • EU environmental regulations retained	• At risk unless EU regulations for monitoring environmental standards are maintained	• Undermines British food values of safety and sustainability of the environment
	Best-Case Scenario -->>> Worse-Case Scenario		

6. Mitigating the Risk: Recommendations

Brexit poses unprecedented economic, social and environmental challenges to the UK poultry meat industry and British consumers. This report makes a number of recommendations to offset these potential risks. We must use Brexit as an opportunity to re-focus our attention on British values, to prioritise high standard, affordable and sustainable British produce, that is available to everyone. An essential part of defending these values involves securing Britain's poultry meat industry for the future and protecting the benefits the sector brings to the economy and our communities. We want Government to adopt policies that drive productivity and job growth; protect environmental sustainability; and strengthen our food security in a post-Brexit Britain. Our recommendations include:

- **Avoiding a 'no deal' Brexit**

  The Secretary of State for International Trade, Liam Fox recently put the likelihood of a 'no deal' Brexit with Brussels at '60-40'.[193] As this report has made clear, the risks to the consumer, producer and the economy are highest in this scenario. The UK must avoid reverting to trading on WTO terms. Doing so would be a recipe for disaster, undermining British values, the quality and quantity of the chicken we consume and our environmental policies. As the President of the NFU stated, 'we've said from day one achieving a free and frictionless trade deal with the EU is absolutely essential for farmers and consumers alike […] the challenges will only be worse if we get a 'no deal' Brexit'.[194]

- **Maintaining health and welfare standards; prioritising the need for strong regulators**

  The UK has world class health and safety standards in its food production. Whilst proponents argue that it is necessary to balance production costs of high standards with maintaining a competitive edge with lower cost and lower quality imports, we cannot allow Brexit to be the point at which we accept poorer standards. Lang et al. report that senior Government advisors have confirmed that plans are being made to 'suspend food controls if there are any delays to imports of perishable foods at our borders'.[195] This cannot be allowed to happen. Industry leaders know how harmful this would be to Britain's food security and trust in the UK's food system.[196] The public is also particularly hostile to any drop in food quality; 82% of those polled are averse to lowering standards for a trade deal with the US,[197] and more people back alignment with EU standards (49%) than weakening them (28%) after Brexit.[198]

We recommend that the Government guarantees that all imported poultry meat meets our current production standards. We applaud the Environment Secretary, Michael Gove's promise to ensure farmers 'have what they need in order to provide us with high-quality food and ensure their businesses survive';[199] but more is required. The Government must work with policymakers to create a 'clause', that is acceptable to the public and industry, which ensures that all future imports meet UK standards. This clause must then be inserted into all and any future trade negotiations. More immediately the Government must also commit to a 'quality advancement principle', which lays out the Government's commitment to pursue higher standards post-Brexit.

We also recommend that regulators, such as the FSA are given stronger powers to monitor and maintain our high production standards. Since 2014, the FSA has had their budget slashed by nearly £22m,[200] weakening the UK's food standards body going into a Brexit scenario where it will be needed the most. To boost its capacity, we demand that the FSA is properly funded and that the Government guarantees that responsibility for the FSA will stay with the Department of Health, benefitting from its recently increased budget, and will not be shifted to DEFRA where it could face further cuts. We call for a more prominent role for the FSA in assuring the public that Brexit is not an excuse to lower food standards and instead is an opportunity to raise them.

Finally, we support the creation of a strong statutory body to hold the Government to account, and ensure it meets its environmental targets after Brexit.[201] We want the Government to maintain its commitment to the '25 Year Environment Plan'[202] and for this body to independently monitor this, and the UK's 'quality advancement' commitments to environmental standards. To be up to the task it should be well funded, have prosecutorial powers and be operational before the UK leaves the EU.

- **Increasing productivity, innovation and investment through fiscal enticements**

Our post-Brexit food policy must ensure that farmers are resilient and productive, so that they can continue to deliver the high standard, affordable food that meets our environmental and social values. The Government must provide help for new infrastructure and 'green technologies', and support R&D and innovation in the sector. The food industry has a long history of innovation and adopting new technologies to increase output, and increased investment in these areas will create a more flexible and resilient food system.

To achieve this, we call on Government to introduce fiscal enticements for investment in green infrastructure and technologies to help boost competitiveness and the environmental sustainability of the poultry industry. For example, tax breaks such as the reintroduction of the Agricultural Buildings Allowance (which allowed tax relief against trading income for the cost of new farm buildings)[203] could be utilised to stimulate investment in the poultry meat industry and scale up production.[204] This would increase Britain's food security and should be supported by Government, given the need to maintain demand for British poultry that is in line with our values in affordability, quality and sustainability.

Large scale farming, done well, could feed the UK. Although there are concerns surrounding the use of 'megafarms', industry experts believe their use could reduce the poultry industry's carbon footprint whilst maintaining high animal welfare standards. The technology exists to create new farms that are remarkably advanced, with low energy biomass heating, where all the feed and drink is automated, and the birds are given adequate room to move around.[205] Having more elements of poultry production under one roof, increasingly powered by green technologies could reduce the carbon footprint of the industry and the chicken we consume, with lower transport associated emissions. Of course, such scaled up production would need scaled up regulation to ensure the highest animal welfare and food standards, and we ask the Government to meet these requirements post-Brexit.

We also call for more research directed towards the practical application of innovation in the food industry. For example, over the last decade there have been positive scientific steps with regard to ammonia capture from poultry farms.[206] However, the gas permeable membrane technology has not become commercially viable or widespread. The Government must do more to encourage the use of such new green technologies, investing more in similar R&D and introducing incentives to implement them.

- **Securing access to high-quality labour by introducing a flexible visa system**

The poultry meat industry's access to labour is likely to be deeply affected by Brexit. Given that 60% of the poultry sector's workforce is from Europe,[207] and that Brexit could drive up the costs of labour by 50%,[208] maintaining free-flowing access to migrant labour is vital to the competitiveness and sustainability of the industry. Whilst the food sector knows it can do more to attract domestic workers into their industries, the UK is operating at historically low levels of unemployment. Coupled with production in sparsely populated rural areas and the devaluation of the currency, many farmers are already facing recruitment crises.[209]

The White Paper is short on detail about immigration beyond stating that 'free movement will end as the UK leaves the EU […] further details of the UK's immigration system will be set out in due course'.[210] We call on the Government to provide immediate clarity on its proposed migration policy, considering the contributions that EU workers are making to the quality and quantity of UK poultry meat.

Although automation will likely reduce the need for labour in the future, it will take time to develop such technologies. In the short and medium term, there is a growing need for access to migrant labour from the EU. To meet this demand, the UK must develop a visa system that allows migrant labour to enter the UK to do jobs that British labour does not have the capacity to meet. We would like to see a visa system that allows the 'poultry industry' to be recognised as a sector that has the right to bring in migrant labour for roles that cannot be met by UK workers. According to the industry, the reliable access to labour will 'maintain the productivity of the sector and contribute to UK food security'.[211]

- **Prioritising British food through social value in public procurement**

One of this paper's key recommendations with regard to making future food policies meet British social values, is ensuring high standard fresh British chicken is sourced for our schools and hospitals. At present, the majority of chicken procured by the public sector is processed chicken from non-EU states because of its low cost. As section 5.2 highlights, although this chicken does meet the EU's current standards there are concerns about this produce. If we leave the EU's regulatory protection, our schools and hospitals could become the most at-risk locations for low-standard imports. Leaving our children and the sick to eat poorer standard produce is fundamentally wrong. This supports our argument, that a 'no deal' Brexit threatens to create a two-tier food system – where the wealthy can afford to eat high-standard chicken, whilst the most vulnerable in society can only afford to eat imported poultry meat that is cheaper but produced to a lower standard. This goes against Britons principles of affordability and availability of good quality food for all.

In March 2018 Michael Gove made a speech on what he envisaged a Green Brexit to be. In it he argued that, 'not everything that we cherish in the natural world can be given a monetary value. We don't want to protect and restore the environment simply because of its economic value, but because of our moral duty and our emotional attachment'.[212] We agree, and we challenge the Secretary of State to make good on his word. We must implement a policy that protects the most vulnerable in society by prioritising fresh British produce in public procurement, replacing our image of food as a material commodity to a cultural and public-health issue. This would shift the focus from providing food in schools and hospitals based on cost, to sourcing it because we value the health and safety of people, we value high-quality food and it is our moral duty to maintain them. As part of this commitment we support the private members bill introduced by Emma Lewell-Buck MP, which aims to systematically measure food security in the UK.[213]

- **Educating consumers to be sustainable and use the whole bird**

  One way of improving the sustainability of the chicken we consume in the UK, is to improve the domestic carcass balance. This would mitigate against the impacts of the UK's potential surplus of dark chicken meat that would be created in a 'no deal' Brexit, when it would become uncompetitive in relation to EU produced dark meat.

  For producers, there is more value in selling dark meat in the UK than exporting it, due to reduced transportation costs. For UK consumers this would mean that the price of UK fresh chicken breast could actually be reduced.[214] This is a win-win situation. Fixing the carcass balance is good for UK producers, good for UK consumers and is good for maintaining health and animal welfare standards because UK standards are some of the highest in the world.

  We therefore recommend an industry and government led education campaign, to teach consumers about the importance of improving sustainability and how it benefits the environment, the economy and contributes to Britain's food security. This 'sustainable consumption' campaign would engage consumers to eat the whole chicken and more dark meat, explaining the benefits of eating such cuts as chicken wings and thighs, and providing recipes to integrate such meals into British culinary culture.

  This chimes with polling data that indicates consumers want the food industry to educate the public about food. The FSA's 2016 report found that participants wanted more to be done to raise awareness on issues such as sustainability, the environmental impact of food production and the processes involved with getting food to our tables.[215] Further attitudinal studies have found that once consumers are informed about the challenges facing our food system, they respond with a willingness to change their purchasing habits to reduce future risks.[216] This implies that such a 'sustainable consumption' campaign could indeed be very effective.

7. Conclusion

The future relationship between the UK and the EU remains unknown. Whilst recent developments have led some senior Cabinet Ministers to concede that leaving without a deal is now more likely than not,[217] predicting the outcome of the negotiations is simply not possible. Given this uncertainty, this report is intended to keep Government as informed as possible about the potential risks of Brexit to the poultry industry and the possible ways to mitigate them, to ensure the Government acts to protect the best interests of consumers and producers. The poultry meat sector is an important British industry. It has a significant impact on the UK economy, public health, the environment and our social values.

This report has summarised what we see as the key challenges for the poultry meat industry, across a series of Brexit scenarios. Our conclusion is that a 'no deal' Fortress UK scenario is the worst possible outcome for Britain. Despite assurances from the Prime Minister that a 'no deal' Brexit 'wouldn't be the end of the world',[218] it will have significant detrimental effects on the economy, society and our environmental sustainability. We have found that the British poultry meat industry is vulnerable to rising trade friction costs, where import costs could rise by 8% (due to increased customs inspections for example) and labour costs by 50%. This would have substantial impacts on the costs of production for British poultry producers. If we turn to non-EU states to meet the demand for chicken either through a unilateral removal of import tariffs or through free trade deals after Brexit, there are serious concerns about the risks this poses to British values and the standards we expect for our food. Increased imports of US chlorinated chicken remain the central worry, but there are also concerns about ramping up the import of processed chicken from Thailand and Brazil. Should the increased costs of production be passed on to the consumer there are also reservations that a 'no deal' Brexit could create a two-tier food system, where only the wealthy eat fresh chicken produced to high standards whilst the poor can only afford to eat at-risk chicken. Leaving the EU's regulatory net magnifies these effects and the UK must be ready to act quickly to ensure UK regulations prevent potential environmental degradation around issues such as carbon emissions, ammonia gas and antibiotic use. As a nation, we cannot afford to fall behind on environmental standards.

The theme running through all these impacts is that they run counter to consumer values about eating British food. Britons want high-quality, safe, healthy, affordable, and environmentally sustainable food available to everybody in society. A 'no deal' Brexit poses an unprecedented threat to these values, as the cost of British produce increases, the likelihood of importing unsafe chicken grows, and the risk of environmental damage rises. British farmers have worked extremely hard to build a food system that prioritises and protects these values. Whilst the poultry meat industry is robust and will always put its best foot forward, we should not allow Brexit to become the point at which we 'race to the bottom' on food standards in order to compete with cheaper poultry meat products in the world market.

This report makes a series of recommendations to mitigate the risks of a worst-case Brexit. Besides avoiding a 'no deal' scenario, we call on the Government to maintain access to high-quality EU workers to limit the increase in production costs. We demand that the highest possible food and environmental standards are maintained and that regulatory bodies are given broader or new powers to hold producers and Government to account after Brexit. We also want British food to be prioritised in procurement in our schools and hospitals, to prevent a two-tier food system from developing, whereby our most vulnerable are forced to eat the most at risk poultry meat. Finally, we wish to introduce a 'sustainable consumption' campaign to educate consumers about the benefits of eating all parts of the bird – which will go some way to solving the UK's carcass balance crisis and increase the future food security of the UK.

This is the key moment to realise the importance of the industry to the UK economy, the importance of British values in relation to food and how these economic and social considerations are threatened by a poorly negotiated Brexit. Currently, we are not so much 'sleep walking' as hurtling towards a 'no deal' scenario. We should not play chicken in negotiations with the EU, when the impacts of leaving without a deal will be so keenly felt by British consumers and the UK economy. This report should serve as a wake-up call for Government and policymakers to recognise and protect the economic importance of the UK poultry industry and the social values which British consumers hold dear, by preventing a 'no deal' exit from the European Union.

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Prosperity

The UK has some of the highest levels of wealth concentration in the developed world. It has an economy where most mature markets are dominated by a small number of players and the barriers to entry are far too high. It is not an exaggeration to suggest that in many areas, from energy to banking to groceries, the UK has a monopolistic rentier rather than a market economy – a system in which certain individuals or small groups gain market dominance and excessive returns through anti-competitive practices. This conspires against innovation and is detrimental to the small and emergent businesses that generate growth and spread prosperity. Added to this, our education system, by specialising too early and often in the wrong areas, fails to produce students with fully rounded skill-sets. We are simply not equipping our future workforce with the means to safeguard our, and their, economic future. This is one reason why the real value of wages in proportion to growth in GDP continues to stagnate or fall. Our long-term productivity dilemma is a function of market capture and the effective de-skilling of the population.

We believe that shared prosperity cannot be achieved by simply tweaking the market. Britain needs significant demand and supply-side transformation, with new visionary institutions re-ordering our economy. We need long-term solutions that give power over wealth and assets, not simply handouts, to ordinary people. Central to this process of economic empowerment is an ethical, practical and adaptable education that gives people the skills to build their own businesses, or develop their own talents, rather than a conveyor belt to a service industry of low wage and less return.

New financial institutions to promote small business lending are required, and this involves smaller, more specialised and decentralised banks that can deliver advice as well as capital. We wish to explore ways in which all financial transactions can be linked to a wider social purpose and profit, which itself needs a transformation of the legal framework within which economic transactions take place. We believe that the future lies in the shaping of a genuinely social market which would be in consequence a genuinely free and open market. Internalising externalities and creating a level economic playing field in terms of tax paid and monopolies recognised and challenged, remains beyond the scope of contemporary governments to deliver. Such a vision requires new concepts. The viable transformative solutions lie beyond the purview of the current visions of both left and right in the UK.

Prosperity Prosperity Prosperity

What will happen to the UK's poultry meat sector after Brexit? Will producers and consumers alike be willing to pay potentially higher prices? Or will they be happy to consume lower standard produce, after the UK leaves the regulatory safety net of the EU? Unless the Government is made aware of the key challenges and options available to it, the UK is at risk of undermining its food security and the safety of its citizens.

Our report 'Coming Home to Roost: The British Poultry Meat Industry After Brexit' aims to address these issues by identifying the main economic, societal and environmental risks to the poultry sector across a variety of potential Brexit scenarios.

We argue that a 'no deal' scenario represents the worst-case outcome for the British poultry meat industry. The sector is vulnerable to rising labour and trade friction costs, lower standard imported produce, and potential environmental degradation should we leave the EU without a deal. It raises the risk of eating chicken produced to lower standards, imperilling public health and compromising consumer values. It also risks increasing the price of poultry, amplifying societal inequalities and creating a two-tier food system in Britain.

This report provides a series of safeguards to offset these risks. Brexit must be used as an opportunity to re-focus our attention on British values, to state boldly that prioritising high standard, affordable and sustainable British produce, for all, is at the top of our agenda. We want the Government to adopt policies that drive productivity and job growth; protect environmental sustainability; and strengthen our food security in a post-Brexit Britain.

BRITISH POULTRY COUNCIL
The voice of the British poultry meat sector

ISBN: 978-1-908027-78-8 Price: £19.95

The ResPublica Trust is a company limited by guarantee registered in England and Wales, number 7081565, registered office: 15 Whitehall, London SW1A 2DD