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FRC Food Brexit Briefing

Feeding Britain: Food Security after Brexit

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FOOD RESEARCH COLLABORATION

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Summary

This Food Brexit Briefing brings together three themes that deserve intense scrutiny at this juncture in the UK's withdrawal from the EU. The first is whether, even now, food attracts enough policy attention in the negotiating process, given its central role in both public wellbeing and the national economy. The second is the threat a careless Brexit poses to the UK's food security – and the related need to have a new policy for the UK's food system, from agriculture to consumption, which is genuinely sustainable, Brexit or no Brexit. The third is the risk generated, to the UK's status as a potential trading partner of the EU, by conducting major reform of the UK food safety regulation regime at the very time at which Brexit negotiations are taking place and new trade deals are being sought. The Briefing Paper deals with these three interconnected themes in separate sections; and the fourth section then presents the Conclusions and Recommendations.

Part 1 considers whether the UK Government fully recognises the importance of food within the Brexit process. It suggests that the Chequers Statement and July 12 White Paper are a step forward in some respects. They acknowledge the significance of the agri-food sector but make a fundamental mistake in proposing close EU overlap only for farming and manufacturing but not retail or food service. This injects a fault-line into the UK food system between production and service sectors, yet food service is by far the largest source of employment in the entire UK food chain and delivers more gross value added (29%) than the other sectors (agriculture 7%; wholesaling 11%; manufacturing 26%; retailing 27%). It and retailing are the greatest sites of value-adding. The Government also appears to be ambiguous on the question of migrant workers and how essential they currently are to the working of the UK food system.

Part 2 considers the fragile state of UK food security and shows the risks of breaking links with the EU when the UK sources 30% of its food there, plus a further 11% via deals negotiated by the EU with other countries. The Government clearly recognises the dire consequences of getting this wrong, because it is apparently planning to be able to suspend food regulations in the event of a no-deal Brexit, in order to keep the flow of food continuing. One could argue that this is sensible emergency planning, but it also carries risks, as it would send signals to the EU, at a delicate time in Brexit negotiations, which could make the UK's 3rd country status more problematic for exports. At the same time, because political attention is almost wholly on the politics of Brexit, there is a danger that the pressing issue of sustainability across the entire UK food system is not being fully addressed. The UK urgently needs to begin the transition to a more secure, sustainable and healthy approach to food, from production to consumption. The risk that Brexit takes attention away from that priority has grown. The Briefing urges that a national process should be begun and that a review to that end should be instituted.

Part 3 considers the significance of a process of reform, being undertaken by the Food Standards Agency (FSA), which will significantly change how food safety is addressed in the UK. The Regulating Our Future (ROF) programme (discussed in an earlier Food Research Collaboration Brexit Briefing) has received little public attention. The public needs to know that ROF heralds fundamental changes to the way in which food safety, standards and animal feed are to be regulated. This Briefing argues for the provision of clarity and evidence by the FSA in support of its proposals. It further argues that addressing the key

concerns summarised in this paper is fundamental to the UK being able to demonstrate to both domestic consumers and potential overseas trading partners that it is maintaining a strong and rigorous regulatory regime. Any weakening of food standards at this juncture could threaten the future of the UK's food trade with the EU, as the EU insists that its trading partners meet its standards – hence the concern about possible suspension of food regulations, cited earlier. Brexit has precipitated a highly uncertain period for UK consumers and for the UK food system and its ongoing security. Attempting to 'land' the ROF programme at the same time risks turning a difficult situation into a potentially dangerous one. It might be argued that getting this wrong, at this time, would not amount to 'taking back control' but to loosening it.

Recommendations

We recommend that **HM Government**:

> Maintains a clear and explicit focus on the potential adverse effects of Brexit on food security in the UK, while negotiating the UK's future trading relationships with the EU and other jurisdictions.

> Publishes proper Brexit impact studies on the UK's agricultural and food system for the White Paper and Chequers Statement and any subsequent proposals.

> Ensures that high food standards remain at the heart of any future trade deals.

> Provides clarity on its proposed migration policy, taking account of the contributions that non-UK citizens of the EU are making to the quantity and quality of the UK's food supply and services.

> Avoids a hard Food Brexit at all costs. The UK must not retreat to a WTO-rules-based regime. The EU would then categorise the UK as a '3rd Country', which could be a recipe for chaos. This might benefit some hedge funds or traders, but at the cost of undermining the quantity and quality of the UK's food supply.

> Creates a new Sustainable Food Security Strategy and ground it in what we are calling a 'One Nation Food Security' framework. Such a framework would engage with the complexities of the food system and the multiple criteria by which it should be evaluated; it should identify clear priorities and pathways by which they can and will be attained.

> Recasts the proposed Agriculture Bill as a Sustainable Food Bill to provide a new legislative framework for a secure and sustainable food system integrating public health, consumer protection, animal welfare and environmental sustainability.

> Provides explicit, public guarantees that responsibility for the Food Standards Agency will remain with the Department of Health, and that it will not be transferred to the Department for Environment Food and Rural Affairs.

> Identifies opportunities and provides support for initiatives to improve the UK's domestic sourcing of food, within the UK's climatic and seasonal constraints.

> Begins a process of devolved food governance for England that works better in parallel with those in Wales, Scotland and Northern Ireland, and harnesses the energies of city mayors and social movements such as the Sustainable Food Cities network.

We recommend that the **Food Standards Agency**:

> Addresses the calls for clarification and evidence posed in this paper in respect of its Regulating Our Future (ROF) programme and, where such clarification or evidence is not available, then the Agency should modify or suspend the introduction of its proposals, at least until after Brexit.

We further recommend that **UK citizens, civil society organisation and academics** redouble efforts to ensure sustainability is central in any post-Brexit planning, by:

> Encouraging MPs to ensure there is no disruption to EU food supplies at and after Brexit.

> Encouraging firms in the agricultural and food sector to improve the pay and conditions of their employees and to enhance learning and skills development and thus improve the attractiveness of this work to potential recruits.

> Contributing to regional and local committees which champion sustainable food security and build representative coalitions for the public interest.

> Researching the conditions under which safe and health-enhancing diets would be affordable for all groups of consumers.

Part 1: Chequers and the White Paper: at last a negotiating 'bid' that includes food

On 6 July 2018, the UK Cabinet agreed a three-page statement that it hoped would herald unity within a fractious leadership, Party and country.[1] The apparent unity lasted for less than 48 hours, and remains uncertain. Six days later, the White Paper The Future Relationship between the United Kingdom and the European Union was published.[2] Nevertheless, two years after a narrow but significant Referendum vote (52% to 48%) to leave the European Union (EU), there was, at last, an official UK plan, albeit sketchy (10 paragraph points over four pages) and subject to the inevitable subtlety of the English language (which allows policy wriggle-room in negotiations). The White Paper provides some more detail.

The welcome news from these negotiation documents was that agri-food was expressly referred to. This was a relief since the UK Government had abandoned a previously drafted 25-Year Food Plan in February 2018,[3] leaving food analysts and industry alike perplexed and concerned. Political uncertainties and arguments within the Government remain, however. Together with a lack of clarity about food and Brexit from HM Opposition, this means that UK food security and smooth planning for Brexit cannot be taken for granted. Indeed, tensions within the White Paper were immediately much discussed within the UK let alone the EU.

A central element in HM Government's thinking as laid out in the White Paper was to propose a new Facilitated Customs Arrangement (FCA) to enable flows of food (and other goods) as at present to and from the EU (paras 13-21), but with divergence of customs and tariffs available later. It also proposes a 'common rulebook for agriculture, food and fisheries products' (para 12d) with the EU but remains committed to make all its own rules and regulations. It will leave the Common Agricultural Policy (CAP) and Common Fisheries Policy (CFP) (para 40), but how this will fit with having a common rulebook is unclear. It is committed to ending free movement of people but also to being 'open and tolerant' and to attract the 'brightest and the best' from the EU and elsewhere (paras 73-75).

We are not the only analysts to find these documents with much left unclear. President Trump even managed to add to that uncertainty on his July 12-13 visit, one moment denouncing the Government's position, the next day supporting it. The main dynamics, however, will come from the EU negotiations, not the USA, although President Trump's intervention might suggest some problems ahead over what 'taking back control' might take the UK into – having to accede to US food regulations speedily to get a wider trade deal done, for example, rather than stick with standards which the UK has negotiated over decades with its EU neighbours.

A small step forward, but doubts remain

The Chequers Statement's opening paragraph made a commitment to shared UK-EU 'prosperity and security'. The thrust of the document was to propose that the UK remains overlapped and aligned with the EU on goods, whilst not allowing the free movement of people, services or finance. This commitment was made despite the UK having been a signatory to the documents enshrining the indivisibility of those four freedoms. In this Briefing, we suggest that there is much more to do before the goals of prosperity and security can be met with regard to food. The UK food system is closely entwined with those of its EU neighbours. The UK does not feed itself: its food security is heavily dependent on imports from other EU Member States. To alter this could take years, possibly decades. If politicians want to do this, they must explain to the public and the food industry how they envisage this happening.

In a report a year ago, three of the four present authors set out 16 key issues which needed to be faced over any Food Brexit.[4] All the present authors have written subsequent papers which spelt out the concerns.[5] [6] [7] The Chequers Statement is a step forward, particularly on three issues raised in our July 2017 paper. The Cabinet at Chequers specifically acknowledged:

a. the need to maintain EU-UK food flows;
b. the importance of retaining current EU standards, and continued alignment with the EU's standards as they evolve; and
c. that there will not be a hard border between Northern Ireland (NI) and the Republic of Ireland (ROI).

We remain troubled, however, by the lack of detail over how these aspirations are to be met. Trade deals normally take many years to conclude. The UK Government has left itself less than nine months to conclude the biggest restructuring of our economy and the food system since the late 1960s. David Davis, explaining his resignation as Secretary of State for Exiting the European Union, dismissed concerns that time is running out, arguing that EU negotiations always go to the wire and that the deadline provides the imperative.[8] He ignored the fact that it was the UK that set the leave date and had failed, until now, to provide a fully formed and documented opening negotiation position. The window for serious policy negotiation is three to five months, in order to ensure that time remains for UK Parliamentary scrutiny and ratification by all the other 27 EU Member States and the European Parliament. There is also pressure building for a second UK referendum or 'People's Vote'.

Let us acknowledge the good news. The Chequers Statement, firstly, recognised the necessity of maintaining 'a free trade area for goods' (para 3); then specifically made a commitment to 'a common rulebook for all goods including agri-food' (para 4.a) and accepted the need for a 'common rulebook' on standards (para 4.d and again in 6.b), which we presume includes not just food

but animal welfare, labelling and environmental standards. The Statement also enshrined the need for open borders for Northern Ireland (para 5). The status of the border between the Republic of Ireland and Northern Ireland has, until now, been the largest stumbling block for the EU-27, due to the lack of clarity about UK intentions. The White Paper states that it believes it meets the need for no hard border.

The White Paper's articulation of commitments on agri-food must surely be welcome to consumers, agri-food industries and analysts. It suggests that the pressure that had been put on DEFRA, its Secretary of State and other MPs has yielded results. Intense pressure was also put on the Prime Minister by senior food industry executives. Feedback from those executives indicated that the PM appeared deaf to their warnings, but perhaps the PM was just keeping as many of her cards as possible close to her chest.

As we spell out in the next section, breaking with EU food trade risks serious disruption of the UK's food supply after 29 March, 2019. We urge concerned citizens, informed commentators, academic scholars and food industry employees to keep reminding politicians of the continuing danger. If Brexit politics continues to be in turmoil, demonstrating the need for food security provides a constant and effective vehicle for concerted action towards an acceptable food Brexit.

The British Retail Consortium (BRC) was right to make public a letter expressing concern that was sent to the Prime Minister and Michel Barnier, the EU's chief Brexit negotiator – just as other senior food industry executives had been expressing concern in private since late 2016.[9] A food system engineered on a three-to-five day, 'just-in-time' logistics and delivery system has the potential to break down in less than a week. The Cabinet was wise to take the point at this late stage. We hope the British Government exhibits a renewed sense of responsibility for ensuring that this country achieves sustainable food security over

the medium to long-term as well as immediately (particularly in the case of a hard Brexit). People will need to eat properly from 30 March 2019, and not just once future food trade deals have been concluded at some unknown point in the future.

The devil lies in the detail: negotiations, devolution, services, migration

At the time of writing, quite how the Chequers Statement and the White Paper will survive or yield in the negotiations with the EU remains to be seen. Whether the UK can succeed in getting a deal for only one of the EU's four supposedly inseparable Freedoms of Movement – for goods (which includes agri-food) but not for labour, capital or services[10] – while being free to do what it likes globally on the latter three is especially uncertain. Much depends politically not just on the EU-27's reaction but also on the internal dynamics of the Parliamentary Conservative Party and whether the Parliamentary Labour Party becomes a more articulate and effective Opposition, setting out what it proposes, and why, rather than just waiting for and watching divisions in the Cabinet. This is a time when routine parliamentary political tactics need to give way to a coordinated 'national interest' approach to Brexit and its food security implications.

As a result of this Parliamentary division, we anticipate that two of the 16 Food Brexit key issues, outlined in our earlier July 2017 report, could now become increasingly important. They concern the integration (or otherwise) of the UK's food policy and governance; and the status of migrant workers in the UK food system which has become increasingly part of the service economy not just the primary industries.

A (dis)United Kingdom?

England has a highly centralised policy system. HM Government is acting both for the UK and for England, although Scotland and Wales have variable separate powers, and Northern Ireland's Assembly currently remains suspended. The Chequers Statement and White Paper intend to speak for the UK as a whole but whether they meet Scotland's, Wales's or Northern Ireland's aspirations is for them to say. Scotland, Wales and Northern Ireland have significant agri-food sectors – whisky, lamb, beef, dairy, biscuits and more – and they have important food service sectors for tourism. The silence on services as a whole in the White Paper is extraordinary.

More generally the Withdrawal Bill enables powers currently controlled by Brussels to be re-patriated to the UK Government, including many that are currently devolved.[11] There is an urgency to develop a UK framework for food security which gives opportunity for devolved authorities as well as the English regions – often forgotten governance actors – to participate, not least in the development of FSA's evolving role after Brexit.

Brexit or no Brexit, the UK needs a rethink on food. Some impetus to review the future of UK food security followed the financial crisis of 2007-08 and the consequent increased volatility of food prices on international and national markets. In the UK, that impetus culminated in 2010 with the Food 2030 strategy.[12] Food 2030 addressed the future of the UK's entire food system and gave a commitment to ensure sustainable food security. However, it was discarded by the incoming Conservative-Liberal Democrat Coalition Government in 2010. We argued in our July 2017 report that there is now an opportunity to develop a comprehensive and integrated UK 'One Nation food policy', with a framework that enhances the capacity of devolved authorities and the English regions to take practical steps forward. England and Northern Ireland need to have new statutory obligations, akin to Wales's pioneering Well-being of Future Generations Act, which demand that policies and actions take account of impacts on future society and the environment.[13] The Westminster Government promises a new Agriculture Act for England. We think it ought to be

a Sustainable Food Act and should begin to create a new framework for the UK as a whole.

Agri-food means services from people (including non-UK citizens) as well as goods (i.e. food)

One conspicuous omission in the Chequers Statement was its silence on the service sector. Given that the entire UK service sector (beyond food) now accounts for 79% of the UK economy by value and for 83% of jobs,[14] many were surprised by that omission.

The White Paper focussed on the unhindered movement of goods and, within that, agricultural and food products. Yet the food system is not just agriculture, food manufacturing and their inputs. The food service sector is now the largest employer in the UK food chain (1.7m employees compared to food retailing's 1.1m) with a Gross Value Added exceeding all other food-related sectors.[15]

The growth of the food service component of the UK food sector has been phenomenal. Like other sectors in the UK, it has been heavily reliant on migrant workers from other EU Member States. Indeed, estimates as high as 40% EU migrant labour have been attributed to UK food manufacturing,[16] with some firms almost entirely dependent on non-UK EU citizens.[17] The 'Britishness' of home-grown summer fruits substantially relies on imported workers.[18] The numbers in horticulture may be relatively small, perhaps 80,000, but for the giant foodservice sector, they are considerable. Between 12.3% and 23.7% of the 1.7 million food service labour force are non-UK EU nationals. In the London region, estimates range from 25.7% to 38%.[19]

The Chequers Statement signalled what remains a fraught policy on EU migrant labour. It aimed to 'end free movement; giving the UK back control over how many people enter the country' (para 6. h) yet in the next sentence stated that it will 'include a mobility framework so that UK and EU citizens can continue to travel to each other's territories, and

apply for study and work – similar to what the UK may offer other close trading partners in the future.' (para 6. i). It is not clear how the EU will respond to the proposals.

Challenges ahead

The rest of this briefing reviews some of the stark and urgent challenges to the UK's food insecurity. For example if the outcome of Brexit entails delays at ports such as Dover and Calais, and at either end of the Channel Tunnel, what will happen to the UK's food supply, given the UK's reliance on just-in-time food deliveries to the retail trade? The importance of ensuring that any Brexit deal includes a legally binding, enduring commitment to high food standards for public health, consumer protection and environmental sustainability will be highlighted.

In that context, our concern is that regulatory reforms being introduced by the Food Standards Agency are ill-timed and pose a potential threat to food safety and to the prospects of UK food companies hoping to export to the EU's Single Market. Detailed understanding of food regulations lies at the heart of whether Government Ministers are realistic in seeming to think that the UK could enjoy the unhindered flow of food products to and from the EU, while also attaining a right to trade foodstuffs globally even if they fail to comply with EU standards. The EU will not allow the UK to import from non-EU countries products that in the EU are deemed to be unacceptable, and then let UK firms freely process them to sell within EU's Single Market. If the UK Government prioritises food trade with non-EU countries over trade with the EU, then we should expect that the EU will become distinctly uncooperative with the UK. But that is not what any of us should want.

Part 2: Food Security

The British public expect supermarket shelves to be filled with a wide range of reliable, fresh and affordable foods. We have argued previously that 'cheap' is not actually cheap. There are large externalised costs from today's highly processed, industrial food system due to its adverse effects on public health and the environment. Compared to the 1960s, spending on food by the British public, in terms of the share of disposable income devoted to food, has halved from about 20% to about 10%, although people on low incomes spend proportionately more of their money on food, while the rich spend a far lower share. Despite those adverse externalities and rampant inequalities, the food system has often enabled people to spend more on non-food items, such as cars, housing IT and holidays. The vast majority of people in this country take for granted the performance of the complex, logistically sophisticated, evolving and unstable system on which our food supply and food markets depend. We may see the large lorries on our roads, but we don't see the satellites and the computers that are integral to the logistics revolution. The cash tills that tally the consumer's purchases at the checkout also directly communicate with the supply chain to order replacements. Much of the stock and storage is in trucks on the motorways and autoroutes.

The fragility of 'efficiency'

Under the Cabinet Office, there is a regular review of national resilience. Food is one of the 13 sectors considered. According to the published summary, '[t]he UK Food sector has a highly effective and resilient food supply chain, owing to the size, geographic diversity and competitive nature of the industry.'[20] A recent study has also suggested that the UK has adequate supply of all key nutrients except fibre (due to consumption of refined rather than whole wheat flour).[21] At one level, this is all most reassuring, but questions arise with regard to sourcing, the just-in-time nature of current food logistics and the reliance of food infrastructure

on other sectors such as fuel, transport and trade routes. These are all affected by Brexit.

The British Retail Consortium (BRC) reminded the Prime Minister before the Chequers meeting that about 10,000 containers of food come into the UK from the EU daily, among the 3.6 million containers that pass through our ports annually, supplying about 50,000 tonnes of food to the UK food trade.[22] The BRC had previously reported its assessment that, in a no-deal Brexit scenario, World Trade Organisation (WTO) tariffs on foods imported to the UK from the EU would average 22%.[23] Tariffs could be as high as 46% for cheese or 21% for tomatoes. If the UK chose not to set those tariffs, UK producers would be driven out of business as they would become seriously uncompetitive. Brexit on a no-deal or WTO basis would be, as one leading food manufacturer informed us, 'disastrous'[24] And, as a leading horticulturalist asked us: 'are they seriously thinking they could get tomatoes into the UK from West Africa quicker and cheaper than from the Netherlands?'[25]

What little UK-grown horticulture there is, depends massively on EU migrant labour. The Chequers Statement only addresses this with regard to those immigrants who are already in the UK and have been here for at least five years. The previous Seasonal Agricultural Workers Scheme (SAWS) was abolished in 2013 by the Conservative-Liberal Democrat Coalition; it was confident that Eastern EU workers would fill any gaps.[26] [27] Events have unfolded surprisingly rapidly: some UK based horticultural companies have started new subsidiary enterprises in Africa to grow foods for the British market, whilst some UK harvests have gone ungathered.[28] Moving production abroad is unlikely to resolve the UK's fundamental food labour problem, as was explained in the July 2017 report. HM Government oscillates between denying there are problems, insisting that market forces can and will resolve them, and fantasising about a labour-free future relying on robotics. Such signals do little to provide industrial certainty, or put food on our plates.

Like all systems operating to finely tuned specifications, the UK food system is fragile and vulnerable to disruption. There have been previous early warnings. Back in 2000, blockades of depots by a few hundred fuel delivery drivers seriously disrupted UK food distribution within 24 hours.[29] More recently, the shortage of industrial quantities of CO_2 in June 2018 not only exposed the food system's dependence on this ingredient (from stunning animals for slaughter to the production of crumpets and beer) but also showed how intermeshed the north European food sectors are, with CO_2 sourced across Europe.[30]

European integration has been a key to the creation of this complex food logistics system. A transformation of the UK's food system began in 1967-73 while the UK was negotiating to join the Common Market; which, in turn, became the EU. The transformation accelerated when, in 1975, a majority of UK voters chose, in a Referendum, to stay in the Common Market. It was significantly boosted by the creation of the European Single Market in 1992. That facilitated a wave of change that swept through the EU food system, with many parts of food chain experiencing rapid concentration through mergers and acquisitions. A small number of dominant firms became pre-eminent in sectors such as dairy products, confectionery, beverages and frozen foods. Many firms in the UK food industry have been alarmed by the thought that Brexit would disrupt the markets,

trades and infrastructure on which they rely. The Chequers Statement appears to suggest that HM Government now recognises that ending this Europeanised food system at the end of March 2019, even with a transition period of two years thereafter, would be folly and is impractical.

Where does UK food come from?

The UK does not feed itself and the UK's domestic production of food has been steadily declining since the early 1980s; self-sufficiency is now, by value, only about 60% (see Figure 1).

If we consider the flow of unprocessed, as opposed to processed, foods the UK supplied less than half (49%) of its unprocessed food in 2016. The sources by region are given in Table 1.

Table 1: Regions supplying unprocessed food to the UK, 2016, by %

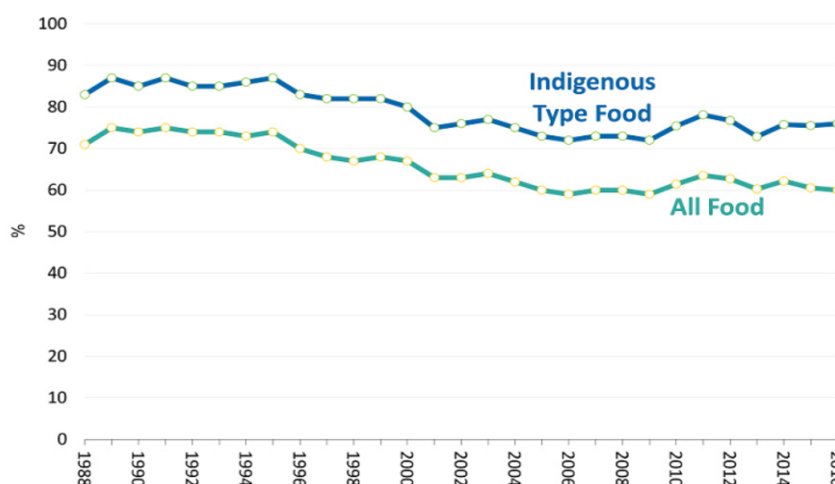| Region	% supplied to the UK
UK	49%
EU	30%
Africa	5%
North America	4%
South America	4%
Asia	4%
Rest of Europe	2%
Australasia	1%

Source: DEFRA (2017)[32]

FIGURE 1: UK Food production to supply ratio (percentage of 'self-sufficiency'), 1988 to 2016. Source: DEFRA (2017)[31]
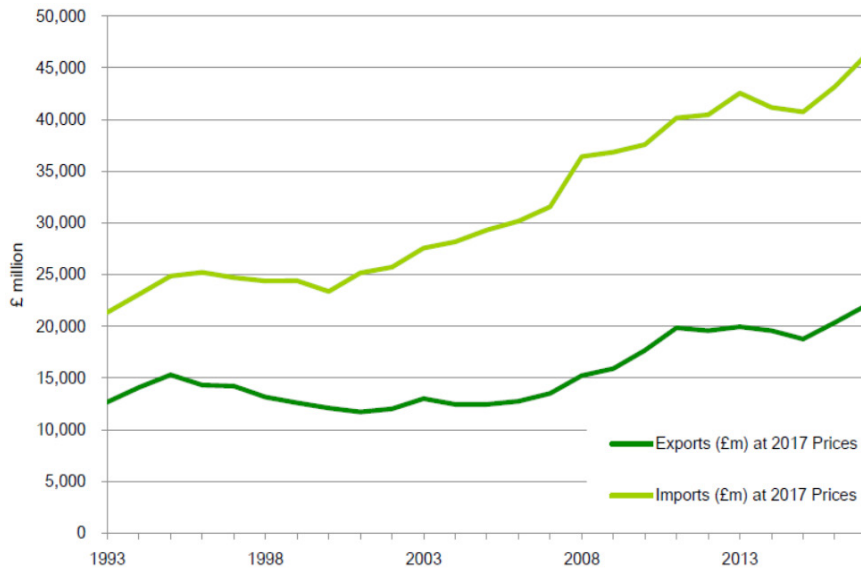
FIGURE 2: The value of food, feed and drink, at 2017 prices. Source: DEFRA (2018)[33]

The UK has had a rising food trade gap (see Figure 2). In 2017, the UK imported food, drink and animal feed worth £46.2bn. It exported only £22bn-worth, of which whisky accounted for nearly a fifth. The UK not only has a serious food dependency problem, but it is haemorrhaging what used to be called the balance of payments.

Figure 3 shows the main countries from which the UK obtains its food, by value. Although there are vociferous calls in the Conservative Party for the UK to do 'big trade deals' with the USA, the USA has made it clear that this would only happen for financial services if the UK abandoned its attachment to food standards which the US Government views as unnecessary.[34] Indeed, Wilbur Ross, US Commerce Secretary, stated that abolishing EU food standards was essential for any UK-USA free trade deal.[35] [36] No-one yet seems to have recognised that the USA would have to fill a huge gap in foodstuffs if it were to replace the food the UK currently imports from the EU. US exports to the UK are currently proportionately tiny; it is 10th out of the top 10 food exporters to the UK (see Figure 3). For the USA to replace the combined food imports from the other nine of the top 10 would require a vast food flotilla and logistics operation, exceeding that of the 1940-45 Atlantic Convoys

– which would need to be ready to start in nine months' time! As one senior food industry manager told us: 'this is dangerous fantasy'.[37] The US might sell hormone-grown, cheap beef to the UK but this would require the UK to leave EU standards which do not permit use of such hormones. And tomatoes could hardly claim to be fresh if they've made a trans-Atlantic trip.
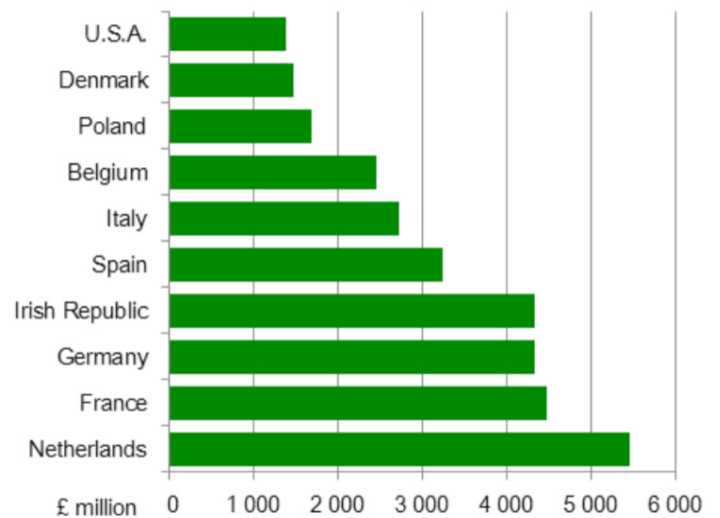

FIGURE 3: Imports of food to the UK, by country of dispatch, 2017, by value (£m). Source: DEFRA (2018)[38]

The actual UK import dependency is greater than financial figures suggest. De Ruiter and colleagues have calculated that the UK currently imports over

50% of its food and animal feed by value, and that 70% of associated cropland and 64% of gas emission impacts are located abroad.[39]

UK vulnerabilities seem clear. There are several serious potential threats to UK food security, especially in relation to the following issues.

- **Business continuity:** Contracts for food supplies are typically set 12 months ahead. UK food comes via a complex logistics system run on a just-in-time basis, i.e. three to five days' supply. There are only tiny food stocks, commercial or public, held in the UK's food distribution chain.
- **Food safety:** Inspections of food take place 'at source' while the UK is in the EU. If we leave the Customs Union / Single Market, inspections will have to take place at our ports (including airports for air-freighted foods). At the moment, port inspection of EU-derived food amounts to just paperwork completion that takes an average of 2 minutes. In the event of a hard Brexit and the establishment of customs and food safety clearances, merely increasing the delay will generate lorry tailbacks extending to more than 17 miles (as modelled by Imperial College) within the first 24 hours.[40]
- **Home-produced UK food supplies:** Though slowly declining overall since a high point in the 1980s, the potential for home production will be significantly affected by whichever new framework is adopted. Some scenarios now suggest negative financial impacts, both in relation to likely subsidy cuts and the 'clout' of food and farming in trade deals, although prior to the Referendum some were more optimistic.[41] An AHDB study at the end of 2017 showed that farm incomes would more than halve if the UK opened its borders to a low-cost regime, would drop by less than half if it adopted a unilateral protectionist regime, and would rise if a free-trade deal was struck with the EU.[42]

Sustainability – broadening what is meant by food security

It would be wrong to consider food security simply as a matter of tonnage on shelves. 'It doesn't matter where food comes from or how', a Government advisor once said: 'all that matters is that it's there.'[43] He was wrong then and is completely wrong now, but this sentiment is not uncommon, and could easily be played upon in coming months.

The food system is one of the biggest sources of greenhouse gas emissions, biodiversity loss, social injustice and diet-related ill-health.[44] Notwithstanding Brexit, almost all the prognoses about our food supply to 2050 point to a serious squeeze on resources, land, water and people.[45] Whether in or out of the EU, in hard or soft or no Brexit, the UK needs to change its food system considerably. Brexit should not undermine that goal.

The UK is a signatory to the UN Sustainable Development Goals,[46] the Paris Climate Change Accord,[47] and the Convention on Biodiversity,[48] all of which require food system changes nationally and globally. Those targets are not likely to be achieved without a radical shift in UK and in other high-income countries' food systems and patterns of consumption.[49] What matters is not just that the UK has enough food to eat, but rather what is eaten and how it is produced, processed, distributed and consumed. Sustainability requires more than cutting emissions of CO_2 or cutting waste. It will require a multi-dimensional approach that connects public and environmental health with culture, economics, societal values and governance.

The UK needs to reverse the damage being caused by poor diets, particularly for low income consumers. The UK diet had the highest proportion of ultra-processed food (high in fat, salt and sugar) consumption in 1998-2011 across 19 EU countries.[50] The average household availability of ultra-

processed foods ranged from 10·2% in Portugal and 13·4% in Italy to 46·2% in Germany and 50·4% in the UK. The marketing and availability of such products distort eating patterns and impose long-term ill-health costs on the NHS. The rates of obesity in both children and adults, as well as the rising trends, are unsustainable. Cambridge University's CEDAR & MRC Epidemiology Unit Food Environment data have highlighted the coincidence of the locations of 'junk food' outlets and social deprivation.[51]

The USA or Brazil might be only too willing to supply cheap and plentiful beef or poultry to the UK after Brexit, but to meet climate change targets, countries such as the UK and USA ought to be reducing their meat consumption; ironically, the UK, famed as a land of roast beef, actually imports more meat in total than it exports.[52] In 2017, the UK was only 81% self-sufficient in cattle meat; 61% for pigmeat; 90% for poultry; 101% for sheep and lamb; 105% for milk and dairy; and 86% for eggs.[53] Social inequalities in the UK diet are lamentable. Low-income consumers have already been affected by higher food prices since the pound dropped in value, following the Referendum. Food Banks have been normalised; they are no longer short-term crisis management.[54] British eating patterns are socially polarised and increasingly so.[55] [56] We are not romanticising the pre-EU UK diet. UK food was famous for being brown, over-cooked and plain. In culinary terms, membership of the EU has contributed to a transformation of UK food culture in some good and some adverse directions. The UK now has more varieties of artisanal cheese, for example, than France.

Eating patterns and children's diets are influenced by commercial interests, and especially by advertising.[57] Food companies spend 27 times more on advertising than the UK Government spends on promoting healthy eating.[58] Brexit must not be an opportunity for deregulation that would encourage a 'permanently eating' culture. The UK's NHS spends £16bn on treating the results of excess eating, more than the Home Office allocates to the police.[59]

The Government and Opposition must clarify positions on food security

UK governments of all hues, in recent years, have tended to take the view that this country is food secure because its people can afford to buy food sourced from abroad. There is a long history to this policy, which became particularly important in UK politics in debates over the Corn Laws in the early 19th century. With the 1846 Repeal of the Corn Laws, the policy became one of increasing reliance on external (often colonial) sources for imports. By the late 19th century UK agriculture had been run down, only for shocks to occur during World Wars 1 and 2. Learning the lessons from WW2 produced new, bi-partisan support for rebuilding the UK's domestic food supplies, which culminated in the 1947 Agriculture Act. Domestic food production grew to a high point in the early 1980s, supported initially by the UK's deficiency payments subsidy scheme and then by Common Agricultural Policy subsidy schemes. If the Chequers Statement remains HM Government's position and if the EU agrees with it, the UK's agri-food supply will remain Europeanised, but as the saying has it: nothing is agreed until everything is agreed.

The UK Government must clarify its vision for feeding the UK. In such a period of political contestation, it is not surprising there are competing narratives in the Government and on the backbenches. One can distinguish between five contrasting positions, pulling the UK away from its European policy framework. They are:

- **'Atlanticist':** Liam Fox and others have proclaimed the attractions of the UK sourcing food imports from the USA, as part of a wider future UK-US trade deal,[60] but concerns emerged about the US's lower food standards.[61]
- **'Neo-Imperialist':** Michael Gove voiced support in the Referendum campaign for other countries to produce food for the UK to replace imports from the EU. The concern is whether this would be cheaper, sufficiently safe

and sustainable.[62] Lowering tariffs could be key to this, to attract imports, but that would undermine UK producers.[63]

- **'Mercantilist':** Brexit is seen as an opportunity to increase exports of UK processed food and drink products, not least to counter the growth of imports.[64]
- **'Nationalist':** Those favouring increasing UK domestic production, perhaps to higher standards, but this approach fails to acknowledge the limits implied by our geography and climate.
- **'Disengaged':** Some (such as in the Treasury) see food as either of little interest or as a sub-issue of macro-economics that should be left to the market (ignoring how markets are dependent on and framed by politics). This group argues that the agri-food sector does not deserve special treatment.

These are important distinctions. Such policy assumptions and choices shape not just what land is used for but whether or not a food and farm sector can thrive, or even survive, in the UK. We are critical of all those five perspectives, all of which are over-simplified. We are advocating what we term a 'One Nation Food Security' framework, which would engage with the complexities of the food system, and the multiple criteria by which it should be evaluated, but which nonetheless identifies clear priorities, and pathways by which they can and will be attained.

Some Neo-Imperialists suggest that the UK could abandon support for its farm sector and 'do a New Zealand', cutting all farm subsidies.[65] Although there are big differences between the UK and New Zealand, some see the future for UK primary production as being forced to become more 'efficient' and productive, as happened to New Zealand farming.[66] In the UK, this would have a direct, rapid and adverse impact on much upland farming. Horticulture is not subsidised in the UK, but is reliant on EU migrant labour, especially for harvesting. Much of UK farming is kept afloat by EU subsidies. In 2016, UK farming's total income was £3.7bn, of which £3.2bn (81%) was EU subsidies.[67]

Some analysts now forecast that up to 25% of UK farms will 'go under' if those subsidies are abolished.[68] Perhaps wisely, Mr Gove has extended the promise to maintain subsidies at current levels to 2024. This is not far ahead, though perhaps far enough for him no longer to be at DEFRA.[69]

The Government has to date failed to prepare any proper studies of Brexit's likely impact on the UK food system – this is shocking negligence. We understand that embryonic drafts were prepared in DEFRA, but never completed because of the lack political clarity. David Davis, the then Secretary of State for Exiting the EU, even admitted to the lack of impact studies , when he gave his evidence to the Commons Select Committee in December 2017.[70] This was unacceptable then and is dangerous now.

The Labour Party's position also requires clarification. The Labour leadership is said to be reluctant to go against its Northern, working-class supporters, many of whom voted for Brexit. At the Referendum, 65% of Labour voters voted to remain in the EU.[71] More recently, however, an overwhelming majority of Labour Party members have been found to want to stay in the customs union (87%) and single market (85%).[72]

And if there is disruption to the food system from Brexit or a squeeze on incomes, it is low-income consumers who will be most affected, as food is a flexible item in household expenditure and income is a major determinant of health. One might have expected, therefore, that Labour would be alive to Brexit's implications for the food system. The leader of the Labour Party is reputedly of the view that the EU is a Big Capitalist Club, but also has been reported to be becoming more open to a customs union.[73] [74] Membership of the EU has done much to protect UK food security, and improve standards of health and safety and environmental protection, but we are of the view that the UK food system has long required a new vision. This surely is what the Labour leadership as HM Opposition ought to be pressing Government to deliver, Brexit or no Brexit.

Food can and should be a unifying theme in the UK. Since our July 2017 report, which set out the argument that the UK must not accept worsening standards for health and consumer protection, and which put chlorinated chicken on the political agenda, some of the most gung-ho MPs and pro-Brexit rhetoric have been undermined. The White Paper and Chequers Statement confirmed that the PM and the Cabinet now recognise the potential adverse effects of Brexit on UK food security. Polling also suggests that the British public is overwhelmingly hostile to any lowering of food standards. A large majority of the British public would prefer to keep current food safety standards (82%) over lowering standards for a trade deal with the USA (8%). More people back alignment with EU consumer, environmental and employment standards for a far-reaching UK-EU trade deal (49%) than back the weakening of these standards post-Brexit (28%).[75]

Preparing for a no-deal Food Brexit

Our view is that the UK will need to maintain open and unhindered borders with the EU for food, as well as for many other goods and services, not least since it helps maintain the commitments of the Good Friday/Belfast Agreement, as we argued elsewhere.[76] But what if there is no-deal on 28 March 2019, despite David Davis's assurance that getting agreements at the last moment is the EU norm 'Hard' Brexiters want the UK completely detached from the EU, and trading on World Trade Organisation (WTO) rules.[77] The Prime Minister told the Cabinet in July to prepare for no-deal.[78] She is right but it is already happening in Defra in some worrying directions.

In recent months, we have learned from a senior Government advisor that plans are being prepared to 'suspend food controls' if there are any delays to imports of perishable foods at our borders. We learned too that other policy commentators had been told the same by senior DEFRA personnel. One Government advisor even informed us that the plans were being devised 'to avoid Parliamentary scrutiny'.[79] Senior industry people have told us in no uncertain terms that this would be folly and must be avoided, not least because it would threaten exports from the UK to the EU. If the UK were to suspend food safety controls, others might block exports from a country taking such a cavalier approach to public health. It would go completely against all the protestations of commitment to high consumer and health standards. Yet this appears to be what DEFRA envisages. There had also been several hints that other parts of the Government endorsed that proposal.

On 28 February 2018, George Eustice MP, Minister of State at DEFRA, informed the House of Lords EU Environment Committee that, in the event of a no-deal Brexit, DEFRA envisages operating on the basis of a risk-based 'mutual recognition' regime. This assumed that food in the EU is acceptably safe to eat and therefore would be safe to import and distribute in the UK, without introducing any safety checks.[80]

In March 2018, Transport Secretary of State Chris Grayling stated on BBC TV that the UK will not 'in any circumstances' create a 'hard border' at Dover by imposing lorry checks after Brexit.[81] He said: 'We will maintain a free-flowing border at Dover, we will not impose checks at the port, it is utterly unrealistic to do so. We don't check lorries now, we're not going to be checking lorries in the future.' He was incorrect: there are checks, an average of two minutes per lorry, if the border authorities have concerns. And these can be important for health. This thinking might be presented as 'emergency planning' but it could be catastrophically counter-productive. Firstly, it would contradict the Government's explicit commitment to maintaining high standards. Secondly, it would threaten the UK's food exports. Thirdly, it could consign the UK to pariah status in the eyes of the EU.

Answers to parliamentary questions suggest, however, that ministers are anticipating delays arising from non-recognition of standards either

side of the English Channel. Steve Brine MP, Minister at the Department of Health & Social Care, for example, replying to Caroline Lucas MP, stated: [82]

> 'A range of solutions are being investigated to ensure that from day one, imported food and feed can continue to enter the UK with the appropriate checks. Our planning will ensure that, from the day the UK leaves the EU, we will have the necessary resources to continue to protect UK consumers from food safety risks.'

And in another answer he said:

> 'Departments are also working together to identify the range of issues that will impact on the borders, including pinch points for specific ports and capacity for food sampling. A range of options are being investigated to address these issues and ensure that effective solutions are in place.'

If border checks rose to four minutes, there would be 20-mile or so (possibly even 29-mile) lorry tail-backs within a day, [83] [84] [85] hence the fall-back, we presume, of suspending food controls to allow all traffic to be waved through. This is not 'taking back control', it is abandoning it.

Threats to food safety in the UK from imported products, after Brexit

In our July 2017 report, we highlighted four examples of potential food safety risks that might be a consequence of the UK agreeing a free trade deal with the USA.[86] They were: beef hormones, bovine somatotropin (BST) used in milk production, genetic modification (GM) of crops, and the use of chlorinated disinfectants to reduce bacterial contamination of poultry carcasses.

Of those four topics, 'chlorine-washed chicken' was the one most widely discussed in the print and broadcast media, and in Parliament, and has

entered the discourse as a symbol of whether standards rise or are subverted.[87] It is also an issue on which important new evidence has emerged. In early 2018 we learnt that while chlorinated-water is not permitted in the EU for use to disinfect contaminated poultry, its use is permitted to disinfect leafy vegetables and horticultural products. In May 2018 a team of scientists based at the University of Southampton published a paper showing that spraying leafy vegetables with chlorinated water did not reduce the presence or virulence of the bacteria, but it changed them into a 'viable-but-nonculturable (VBNC) state', which means that while the bacteria remained in place and infectious, their presence could not be shown using the standard technique for detecting bacteria.[88] Those tests involve trying to grow, or 'culture', samples of microbes in glass dishes on suitable substrates. The researchers used a different technique enabling them to detect those bacteria on the vegetable leaves, after chlorinated water was used; the treatment blocks and so invalidates conventional culture tests, but as a disinfectant it is entirely ineffective.

When the researchers said: 'These data emphasize the risk that VBNC food-borne pathogens could pose to public health should they continue to go undetected,' they understated the importance of their findings. Their new findings imply that current practices in the UK, and even more importantly in the USA, need to change, and to change urgently. Given that US food producers use chlorinated-water far more extensively than do UK and European producers, as they apply them not just to vegetables and poultry but also on fish, fruit and non-leafy vegetables, those facts might help explain why the rate of food poisoning in the USA is approximately 10 times as high as it is in the UK.[89]

There is an evident and urgent need for similar studies to be conducted across the entire range of anti-bacterial washes that are used on food in the UK, the EU, the USA and the rest of the world, to examine their effects, and effectiveness, on the full range of foods which are treated with them. Are

any of them ever effective? Or do they only block and so invalidate the conventional tests? And, how can production standards be improved so that our food supply is not contaminated with pathogenic bacteria, and so does not need to be disinfected?

The UK therefore has even stronger reasons for rejecting chlorine-washed US poultry meat than we had 12 months ago. For the other three issues highlighted in July 2017, we have no reason to think that the risks they pose are any lower than we thought they were 12 months ago.

On the other hand, several other problematic features of US food production practices and standards have been recognised. They include the fact that pesticides are sprayed more frequently and more widely in US agriculture than is the case in the UK and EU. Moreover the maximum permitted residue levels of pesticides in the USA are often substantially higher than those permitted in the EU. Importing US produce would therefore entail a marked increase in the amounts of pesticides residues that UK consumers would ingest. The standards of animal welfare in US meat, egg and dairy sectors are significantly lower than those in the EU, and as UK standards are in some respects stricter than those in other EU countries, the gap between what is deemed acceptable in the UK and the USA is especially wide.[90]

In the EU, it is unlawful to administer a drug called ractopamine to pigs. Pigs fed ractopamine develop more muscle tissue and less fat than similar pigs fed a similar diet but without the drug. A meatier and less fatty carcass is more profitable but less safe. There is extensive evidence indicating possible adverse effects to both pigs and pork-eaters. In 2009 the European Food Safety Authority concluded diplomatically there 'were not enough data to show that it is safe for human consumption at any level'. In the USA, however, the Food and Drug Administration deems the 'benefits' of using ractopamine to outweigh the risks, but some 160 other jurisdictions disagree.[91]

Another practice deemed acceptable by the US authorities is to incorporate what is politely referred to as 'chicken litter', i.e. poultry bedding material mixed with chicken faeces, as an ingredient in animal feed products, including those intended for poultry. The UK's experience with BSE was sufficient to persuade us of the risks that can arise when animal wastes are incorporated into animal feeds. Feeding cattle wastes back to cattle massively increased the numbers of animals that were infected with BSE, and accelerated the rate at which the disease spread from herd to herd.[92]

The US food supply also contains a wider range of food additives than are permitted in the EU, and at higher levels of usage than are authorised in the EU. For example potassium bromate and azodicarbonamide are authorised for use in US bread-making as 'dough improvers', but deemed unacceptable in the EU. Where the lists of substances permitted in both the USA and the EU as food additives overlap, often the USA accepts higher levels of usage than has been deemed acceptable or necessary in the EU.

Furthermore, US food labelling standards provide consumers with far less information than is the case in the EU. US food industry representatives have told the US Government that in any US-UK trade deal after Brexit, the UK should be obliged to accept any food product that complies with current US legislation and regulations. On a few occasions UK ministers have indicated that they would not accept any reduction in UK food safety standards in exchange for a UK-USA trade deal, but different ministers have been saying different things, and it is far from clear if they can be relied upon fully to deliver on their promises.

UK food producers also have a direct interest in these matters. If US foodstuffs enter the UK's market in the same conditions as they enter the US market, the export of foodstuffs from the UK to the EU will at best become very difficult, or at worst

completely impossible. Very few UK producers, and no British retailers whatsoever, are keen on the UK accepting US products that fail to comply with prevailing EU standards, or on the introduction of US practices into the UK. This is therefore a relatively rare topic on which the representatives of UK consumers and of the UK food industry are in full agreement. The position of the British

Government on these matters, as so many others, is harder to discern.

Problems with the safety of the UK's food supply after Brexit are by no means all linked to food exports. There are also important domestic developments that threaten food safety in the UK.

Part 3: Ensuring Food Safety at a time of Brexit – Regulating our Future (ROF)

The defining characteristics of the current, long-standing system governing the regulation of food safety and standards in the UK include:

- Food laws centred on protecting consumers by ensuring that food is safe and what it says it is;
- Food business operators (FBOs) must show that they have adopted suitable hygienic practices on their premises;
- The risks associated with food processing and preparation have to be assessed by FBOs, industry and food law enforcement officers;
- Standards of protection are to be achieved by enforcing specific provisions (with breaches resulting in criminal sanction) that seek to minimize the risk of unsafe food being offered for sale;
- Food safety law and its enforcement are carried out by a number of actors operating at local, national and European levels;
- The UK's devolved administrations in Scotland, Wales and Northern Ireland are competent to make food hygiene laws and issue Codes of Practice, having regard to the advice of the Food Standards Agency (FSA);
- Local authorities perform a key role in enforcing food safety laws through the

functions carried out by Environmental Health Officers (EHOs) and Trading Standards Officers (TSOs):

- Typically, but not exclusively, food safety is the responsibility of EHOs and food standards the responsibility of TSOs;
- EHOs monitor compliance with the minimum standards required by EU and UK legislation; promote guidance and best practice on higher standards; and they are empowered to take enforcement action to secure minimum standards.

FSA's proposals for change

Food standards and their enforcement are important at the best of times. At the unprecedented time of Brexit, they are vital but problematic. However, the key body in the UK that monitors and is the guardian of those standards, the Food Standards Agency (FSA), has embarked on a major redevelopment, namely its *Regulating our Future* (ROF) programme. Within the context of the general uncertainty being generated by Brexit, the timing of this redevelopment could not be more unfortunate and, if it is to proceed, it will have to be managed with the utmost care as it could:

- destabilise the already uncertain Brexit predicament just when the UK needs to demonstrate to the EU and to the wider world rigorous inspections and enforcement; and
- threaten the future of the UK's food trade with the EU as the EU insists that its trading partners meet the EU's standards.

ROF: a new regulatory approach is being unfolded

The FSA's ROF programme is intended to modify the arrangements in the UK through which food is regulated. All aspects of food regulation – food safety, food standards and animal feed – are within the scope of the ROF programme. The programme envisages implementing ROF in two phases – before 30 March 2019 and after Brexit. The UK has a relatively safe food supply, by comparison with many other countries, although there is undoubtedly some room for improvement. The FSA has yet to provide a sufficiently compelling, evidence-based case of the need for transformational change.

An overview of the ROF programme was first published by FSA in July 2017 in its document *Regulating our Future – why food regulation needs to change and how we are going to do it.* The FSA publishes key papers on this programme on the web.[93]

Contextualising ROF

The 2017 Cabinet Office report *Regulatory Futures Review* set a framework for future regulation and ROF is following that framework. [94] One of the key drivers behind the ROF programme is the issue of falling capacity of local authorities (particularly in England) to deliver the current food control requirements.

Drawing on data from the Department for Communities and Local Government, Kane has estimated that between 2009/10 and 2015/6 English local authority expenditure on food law enforcement declined by some 22%.[95] Figures issued by the FSA reveal that between 2015/16 and 2016/17 the number of food samples collected by EHOs in the entire UK fell by 22% (from 21,563 to 16,746), while just in England they fell by 24.9% (i.e. by almost one quarter, from 12,245 to 9,196).[96] The FSA acknowledged that 'local authorities … are

under increasing financial pressure, such that some are struggling to fully discharge their functions'.[97] The impact on public health has not yet been quantified or communicated.

A distinctive feature of the FSA's proposals is to tap into businesses' own data on food safety-critical parameters, to provide assurance to the regulator that food that is produced is safe and what it says it is. It is, however, an ongoing concern that businesses will not willingly share their data due to commercial sensitivities or, where they do agree to share, they will be selective in the data that they share.

The FSA is currently indicating that in exchange for providing more and reassuring data, FBOs will be subject to fewer and less intrusive inspections from the FSA or local authority officials. The FSA has yet to reveal whether or not it will seek extra powers that would enable it to compel FBOs to provide public officials with data on safety-critical parameters.

At the end of the ROF reforms, the FSA proposes to retain its position as the UK's central Competent Authority, and to continue to be seen to be and act as a strong regulator. If public authorities have access to more comprehensive and timely data on the food safety performance of FBOs, that could be a major step forward, but not if FBOs' use of Regulated Private Assurance (RPA) becomes an excuse for resources for local government to employ Environmental Health and/or Trading Standards Officers to be cut.

Where the FSA has evidence that a Local Authority has neither the capacity, nor the capability, to deliver an acceptable service, the FSA should use its current powers (under the Food Safety Act 1990) and take appropriate action to ensure acceptable delivery.

The ROF proposals largely mirror the recently-adopted New Zealand model of food regulation[98]. In January 2017, the New Zealand Institute of

Environmental Health reported that the new arrangements were problematic in terms of the failure of private sector assurers to report food hygiene problems to NZ local authorities; added to industry's costs; and generated confusion for consumers and businesses.

The development of a holistic approach to food safety, food standards and feed regulation, as intended by ROF, is broadly supported but this also assumes that investment will be made in the development of UK food officers to ensure that they are appropriately skilled and competent to deliver official controls across all areas of food.

ROF - costs and businesses paying for regulation

One of the key principles of ROF is that businesses should meet the costs of regulation. This is sensible as long as the ROF proposals don't end up costing UK PLC significantly more than the current system and delivering fewer benefits, lower standards of public protection or reduced confidence in the system. At a time of Brexit, with all its complexities and uncertainties, such a loss of confidence in the food control system in the UK would be extremely damaging.

Clarity is needed from the FSA on both the costs of the current and proposed systems to industry, the FSA and Local Authorities; as well as the anticipated savings to the public purse that ROF might provide. It is also important to know the FSA's response to the argument, advanced by food businesses, that they are already paying to be regulated via their business rates!

Enhanced Registration under ROF

The FSA's proposal to develop a new, digital 'enhanced registration' system for FBOs to make it easier for them to register with Local Authorities and/or for their information to be included in a national database is sensible, supports their position as central Competent Authority and

addresses the current limitations associated with businesses merely registering with their local authority. Such a system would enable businesses consistently to obtain information and guidance to help them comply with safety and standards regulations before they start trading. Having a comprehensive database of FBOs should make it easier for public authorities to respond to outbreaks of food-borne disease and to improve food traceability. It would, however, be a mistake if FSA failed to ensure that any new digital registration system joins up with the regulatory requirements of other government departments.

It is also important that FSA provides clarification on what it intends to do with the data gathered. Whilst we accept that there is lots of opportunity for FSA to make good use of the data; to date it has not communicated and explained these potential uses. If there is going to be significant investment in a new IT system with which to provide FSA with oversight, it is sensible to ask what they will do with the information and how they intend to use it to influence future policy or regulatory requirements.

Enhanced registration is not without its risks, especially if large numbers of FBOs remain unregistered and unregulated. The current system, with locally based Environmental Health Officers 'on the street', guards against such risks and, at the very least, a rigorous enforcement environment should be created around those FBOs that do not register.

Assurance and Regulated Private Assurance (RPA) under ROF

Increased reliance on the role of commercial assurance is a central plank of the ROF proposals, and the most contentious aspect. The proposals strongly reflect the Cabinet Office report on regulatory futures,[99] and the FSA claims that other governments across Europe and around the world are placing greater reliance on private-sector assurance schemes. The FSA also states that the *Codex Alimentarius Commission*, a joint body

of the World Health Organisation and Food and Agriculture Organisation which, under the rules of the World Trade Organisation since 1994, sets minimum standards for internationally traded foodstuffs, is also exploring the greater use of data from private commercial assurance providers.

The FSA is correct when it claims that commercial assurance already contributes to other areas of UK food regulation, namely to animal feedstuffs and primary production, and that many FBOs already purchase additional assurance to supplement visits from local authority Environmental Health Officers. They do that because it may facilitate their entry into new markets, and/or because the frequency of Local Authority inspections does not guarantee the level of brand protection required by retailers and/or their insurers. It is also true that private assurance service providers hold large amounts of data concerning businesses and their levels of compliance, and that those data could be made available to Local Authorities and inform their decisions about the nature, frequency or intensity of subsequent official inspections. On the other hand, and as the FSA has already acknowledged, EU regulations require that its trading partners must not use commercial inspections to substitute for reduced inspection by public officials.[100] .

It is already clear that FBOs and their consultants see little value in assurance being part of ROF unless the assurance service providers can set a Food Hygiene Rating Scheme (FHRS) score for FBOs as part of their assurance contract, but that suggestion is opposed by many (though not all) Local Authorities. It is also opposed by some consultancies and their clients who feel that it would adversely impact their commercial relationships. It would also be inconsistent with current legislative requirements in Northern Ireland and Wales.

The debates surrounding the role of private assurance in assigning FHRS scores have led to opposition that threatened to destabilize the ROF programme. In response, the FSA has developed and piloted its proposals with six 'pathfinder' local authorities and, at the time of writing (July 2018), is evaluating a revised Primary Authority / National Inspection Strategy approach. The approach is based on a draft 'standard' set by FSA, that could see large, multi-site businesses with an established 'Primary Authority' partnership agreement and a good record of compliance having the FHRS scores for their outlets set by the Primary Authority on the basis of 'assured data'. Primary Authority status enables businesses to form a legal partnership with a single, lead local authority, which then provides assured and tailored advice on complying with environmental health, trading standards or fire safety regulations that other local regulators must respect.

That proposal relies on a new Primary Authority scheme, being developed by FSA, which is separate and different from that operated by the Office for Product Safety and Standards (OPSS), which is based in the Department for Business, Energy and Industrial Strategy. Primary Authority standards for FBOs would be set by the FSA, not the OPSS, and it will, in the first place, be open to all multi-site businesses with a high level of compliance. Subsequently, however, the FSA envisages that it may be available to single-site FBOs too, potentially undermining local food enforcement. Under the pilot scheme, Primary Authorities gained access to private business data to help determine compliance and set Food Hygiene Rating Scheme scores. This process was, in effect, a desktop study, using available data to simply set the FHRS score and decide whether or not local inspections were required. The FSA claimed that after some 320 desktop assessments, the FHRS scores matched the local authority's own assessment in 80% of the cases. However, a one-in-five misalignment of FHRS scores is too high a failure rate to ensure confidence in the scheme, and this needs to be urgently addressed. The FSA will need to be able to provide evidence that such a desktop exercise is capable of providing a suitable replacement for interventions carried out by qualified and suitably competent environmental health professionals.

The Standard for Primary Authority/National Inspection Strategies proposed in ROF

The FSA has now published, within a low-key consultation document, the draft criteria that a Primary Authority would need to meet before implementing a national inspection strategy. It intends to turn these criteria into a formal FSA 'standard' that partnerships will need to meet before their national inspection strategy can be recognised by the FSA.[101]

Key components of the draft 'standard' include:

- FSA is to be provided with information on the number of proactive interventions received (including the risk rating categories) as well as the number of reactive food-related referrals made to the Primary Authority (PA) in the previous 12 months;
- Some local authority proactive interaction will be required to contribute to verification that the national inspection strategy for the business is working as intended;
- The PA should demonstrate its competency and capability in relation to the partner business (or group of businesses);
- A business that enters the scheme should have food safety 'prerequisites' in place and that prerequisite information must be made available to the PA and to the FSA;
- PAs to have verified the implementation of the food safety management system for food hygiene, and/or the management controls/systems in relation to food standards (as appropriate);
- PAs should have a reviewed and verified compliance history;
- PAs to have access to and review food safety compliance across the business operations that are subject to local authority control;
- Arrangements for the reporting of serious incidents that pose an imminent risk of food not being safe and/or what it says it is, also need to be in place, so that they are promptly brought to the PA's attention;
- The business's own checks must be carried out at a frequency that is no less than they would experience from local authority interventions;
- PAs will need to provide assurance that the business has processes in place to identify non-compliances in a timely way and rectify them within an appropriate time frame and in an appropriate manner to ensure food is safe and what it says it is;
- The standard requires evidence of peer review, risk-based internal monitoring and/or benchmarking.

Whilst, on the face of it, the criteria are sensible, each one has potential problems that have yet to be fully thought-through.

Some examples of the potential problems are:

- 12 months' data are insufficient to demonstrate sustained compliance, particularly since a significant proportion of food businesses are subject to inspections at 18-month or two yearly intervals!
- Where local authority proactive inspections are to take place to ensure independent verification, more information will need to be provided to local authorities to enable them to plan and resource this work. There is also the unresolved issue of how those visits will be funded given that businesses with national inspection strategies will be removed from local authority planned intervention programmes.
- In addition to being brought to the attention of the PA, serious incidents that pose an imminent risk of food not being safe or what it says it is, should be brought to the attention of the FSA and the relevant local authority, but that requirement is not included in the draft criteria. Failure to report serious incidents to the FSA and local authority could have serious impacts on the health of the population, consumer confidence in food

and the ability of consumers to exercise their consumer rights and choices.

- The frequency of business's own checks on their compliance should be stipulated in the criteria and should be no less frequent than those required by local authorities. Furthermore, there should be a requirement for a significant proportion of them to be unannounced.
- There should also be a requirement for mandatory, unannounced, third-party audits of businesses with a national inspection strategy. These should be carried out by suitably qualified, competent staff and suitably competent and experienced Environmental Health Officers, who are ideally placed to undertake that role.
- Whilst the requirement for evidence of peer review, risk-based internal monitoring and/ or benchmarking of the PA may be sensible, the costs of such internal monitoring will be passed on to commercial customers and therefore to consumers. The system is likely to be more, not less, expensive!

Whilst feedback from Primary Authorities that participated in the pilot study has been positive, the FSA recognises that the scheme cannot work currently in Northern Ireland, as there is no legislative base there for any Primary Authority scheme. Furthermore, the FSA has not yet devised an appeal mechanism for FBOs against PAs' proposed FHRS scores. FBOs taking part in the new scheme will need a National Inspection Plan (as defined under ROF) in place before being allowed to participate in the scheme. National Inspection Plans will also need to be approved by the FSA, and currently there is no indication that FSA has the resources to provide such approvals, especially if the scheme proves popular.

Although the PA scheme is just one facet of a regulated private assurance model, the FSA has indicated that it intends to allow data from all businesses to inform the nature and frequency of official controls and it will set a standard for this.

FSA is also moving on to determine how it will derive value from third-party assurance schemes such as BRC Global, and is still exploring the future relationship between private assurance and official controls. The FSA has acknowledged that such a system can only work with 'mutual trust' and 'absolute transparency', but recent evidence from within the meat sector, such as 2 Sisters and Russell Hume, demonstrate that neither trust nor transparency can be guaranteed.

Whilst the FSA has indicated that it will set a standard to allow data from businesses to inform the nature and frequency of official controls, there are significant problems associated with these plans. Given that the Government agreed on 6 July 2018 to remain in full alignment with the EU's requirements after Brexit, the FSA's proposals risk violating some of the EU's regulations. In a report produced by the FSA, in collaboration with the British Retail Consortium (BRC) the FSA stated that:

'Under current EU law (Regulation (EC) No 882/2004) on official controls performed to ensure the verification of compliance with feed and food law, official controls must be carried out by competent authorities, i.e. public bodies such as local authorities or the FSA. The ability to delegate these powers, which includes enforcement actions, to other persons such as a certification scheme is at present extremely limited and BRC Global Standards or similar bodies could not at present legitimately perform official controls under EU law.'[102]

The report goes further:

'It is considered by the FSA that there is no fundamental legal obstacle to the FSA or LAs having greater regard for FBOs' own checks or those applied to the FBO as a result of independent third-party certification, provided that these are used to help inform a programme of official controls and not treated as a substitute for such controls. The degree to which the frequency or intensity of official controls might lawfully be reduced in

light of regulated private assurance is likely to be variable depending upon the circumstances of the industry sector in question, and of the complexity, sophistication and level of objectivity of any applicable private accreditation schemes which apply to it'.[103] (emphasis added)

But the central plank of ROF is 'substitution'! The more FBOs are covered by reassuring narratives from their own 'assurers', the fewer inspections from the local Competent Authority will be required. The minutes of the FSA's ROF Expert Advisory Group meeting on 7 June 2018 said:

'Robust forms of industry assurance could be used to reduce the burden on regulators and businesses that arises from current, and at times duplicated, verification of food business controls.' (Answer A2 on page 1)

However, in Paragraph 39 Regulation 882/2004 says:

'Community controls in third countries are required in order to verify compliance or equivalence with Community feed and food law as well as with the legislation on animal health and, where appropriate, welfare. Third countries may also be requested to provide information on their control systems. This information, which should be established on the basis of Community guidelines…'.

Those guidelines specify, in Chapter II, Article 4, para 2b, that: *'The competent authorities shall ensure: … (b) that staff carrying out official controls are free from any conflict of interest…' In Article 5: on the delegation of specific tasks related to official controls, the Regulation says: 'The competent authority may delegate specific tasks related to official controls to one or more control bodies in accordance with paragraphs 2 to 4' only if: '…there is an accurate description of the tasks that the control body may carry out and of the conditions under which it may carry them out … and, there is proof that the control body is impartial and free from any conflict of interest as regards the exercise*

of the tasks delegated to it'.

The FSA has yet to explain how its ROF proposals comply with those requirements.

The importance of the Food Hygiene Rating Scheme (FHRS)

It is clear that much depends on the perceived value of the FHRS system to both FBOs and consumers. The principle of having a FHRS is widely supported – it helps consumers to make choices about where they eat and buy their food. However, there is a growing body of evidence showing that some English local authorities do not have sufficient capacity to sustain a mandatory food hygiene rating scheme. The FSA needs properly to explain what a mandatory scheme in England might look like and then work with local authorities to better understand and quantify any resource shortfalls and explore options for addressing them.

Furthermore, currently FHRS scores are only displayed to the public in relation to premises that sell foodstuffs directly to the public. On the issue of any future right of the public to have access to additional information, the ROF 2017 proposals were couched in contradictory terms:

*'There is a balance for us to strike between providing consumers with information that gives them confidence about the food they are buying, and respecting business concerns around sharing commercially sensitive data … **We believe that the interests of the consumer will be better served by an effective regulatory regime in which food businesses feel confident to share data with us in confidence**, rather than by the routine publication of all and any data we are able to access. **Under no circumstances will we share any data without the express permission of its owner**, and we will be working closely with food businesses, their lawyers and ours to establish protocols that are compliant with relevant legislation (e.g. on data protection)'[104]* (Emphases added)

The FSA's suggestion that the interests of consumers are best served by not making information available about businesses' compliance with legal requirements in respect of hygiene and safety (except via a change in the visible green FHRS sticker in the window) is unhelpful. Public access to food safety information is not just about 'giving them confidence about the food they are buying', it is about allowing them to tell when confidence is, and is not, warranted. Allowing FBOs and/or the FSA to keep consumers in the dark is antithetical to the interests of consumers and the protection of public health.

The challenge of devolution

Devolution of key powers from Westminster to Scotland, Wales and Northern Ireland presents particular challenges for the FSA's ROF plans. Food safety is a devolved matter, and it follows that neither the Westminster Government nor the FSA can unilaterally make decisions in respect of food safety systems and processes for the devolved administrations. It must secure their agreement and this will entail additional levels of complexity. The FSA should, therefore, fully engage in discussions with the devolved administrations to ensure that they are clear as to their policies in respect of ROF. However, the recent (July 2018) consultation, initiated by FSA, on the proposed revisions to the Food Law Code of Practice generated by ROF is notable in that the consultation has not yet been extended to Wales. It is of interest to note that in December 2016 the Welsh Government issued a position statement on ROF and subsequently, at the request of the Minister for Social Services and Public Health, set up a working group to provide an assurance to Welsh ministers that Wales's needs are taken account of within the ROF programme.[105]

In respect of the island of Ireland, the Good Friday Agreement of April 1998, the foundation of the current peace process in Northern Ireland, sets out a complex and unique series of provisions and establishes a series of co-operative institutions relating to a number of areas including:

a. The status and system of government of Northern Ireland (NI) within the United Kingdom.
b. The relationship between Northern Ireland and the Republic of Ireland (ROI).
c. The relationship between the ROI and the United Kingdom.

The agreement means, in effect, that ROI has a say in matters relating to NI that have an impact in ROI. Within the context of Brexit this could arguably include any system of food control that is not developed within the context of EU membership. The FSA should, therefore, have a clear narrative around the measures that have been taken to comply with the 1998 Agreement.

Implications of ROF in the context of Brexit

The FSA's ROF proposals could potentially weaken food standards in the UK at the very time that the UK needs to demonstrate to the world that it has and maintains rigorous standards. The issues experienced in New Zealand, where a very similar regulatory model has been introduced, have revealed that commercial assurers have a vested interest in not revealing to public authorities serious shortcomings that they might encounter. Furthermore, the FSA's plans risk undermining the ability of UK producers to sell their products to the EU after Brexit, as the FSA is still to demonstrate how it intends to ensure that its proposals meet the regulatory requirements for countries from which foodstuffs can be imported into the EU. The FSA's ROF proposals are not currently supported by evidence that shows that they are in the interests of UK consumers, producers or retailers. Such evidence should be provided or, where such evidence is not available, the proposals should be withdrawn or modified. In any case, these changes should be delayed until after the Brexit dust has settled.

Part 4: Conclusions and recommendations: time for a Sustainable Food Security Policy

With the Chequers Statement and White Paper of July 2018, the UK Government has at last begun to present a formal negotiating position on Brexit. We welcome the belated realisation that food security is at stake. We argued in our July 2017 report that the time is right to develop a more comprehensive and sustainable food system which aims to feed all well. We termed this 'One Nation Food'.

We recommend that both HM Government and HM Opposition clarify their positions on the importance of Brexit to UK food security, but also:

We recommend that **HM Government:**

- Maintains a clear and explicit focus on the potential adverse effects of Brexit on food security in the UK, while negotiating the UK's future trading relationships with the EU and other jurisdictions.
- Publishes proper Brexit impact studies on the UK's agricultural and food system for the White Paper and Chequers Statement and any subsequent proposals.
- Ensures that high food standards remain at the heart of any future trade deals.
- Provides clarity on its proposed migration policy, taking account of the contributions that non-UK citizens of the EU are making to the quantity and quality of the UK's food supply and services.
- Avoids a hard Food Brexit at all costs. The UK must not retreat to a WTO-rules-based regime. The EU would then categorise the UK as a '3rd Country', which could be a recipe for chaos. This might benefit some hedge funds or traders, but at the cost of undermining the quantity and quality of the UK's food supply.

- Creates a new Sustainable Food Security Strategy and ground it in what we are calling a 'One Nation Food Security' framework. Such a framework would engage with the complexities of the food system and the multiple criteria by which it should be evaluated; it should identify clear priorities and pathways by which they can and will be attained.
- Recasts the proposed Agriculture Bill as a Sustainable Food Bill to provide a new legislative framework for a secure and sustainable food system integrating public health; consumer protection, animal welfare and environmental sustainability.
- Provides explicit, public guarantees that responsibility for the Food Standards Agency will remain with the Department of Health, and that it will not be transferred to the Department for Environment Food and Rural Affairs.
- Identifies opportunities and provides support for initiatives to improve the UK's domestic sourcing of food, within the UK's climatic and seasonal constraints.
- Begins a process of devolved food governance for England that works better in parallel with those in Wales, Scotland and Northern Ireland, and harnesses the energies of city mayors and social movements such as the Sustainable Food Cities network.

We recommend that the **Food Standards Agency:**

- Addresses the calls for clarification and evidence posed in this paper in respect of its Regulating Our Future (ROF) programme and, where such clarification or evidence is not available, then the Agency should modify or suspend the introduction of its proposals, at least until after Brexit.

We further recommend that **UK citizens, civil society organisation and academics** make

every effort to link the broad sustainability
challenge into Brexit planning, by:

- Encouraging MPs to ensure there is no
  disruption to EU food supplies at and after
  Brexit.
- Encouraging firms in the agricultural and food
  sector to improve the pay and conditions
  of their employees and to enhance learning
  and skills development and thus improve
  the attractiveness of this work to potential
  recruits.
- Contributing to regional and local committees
  which champion sustainable food security
  and build representative coalitions for the
  public interest.
- Researching the conditions under which
  safe and health-enhancing diets would be
  affordable for all groups of consumers.

References

1   HM Government (2018). Statement from HM Government, Chequers, 6 July. London: HM Government https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/723460/CHEQUERS_STATEMENT_-_FINAL.PDF

2   HM Government (2018). The Future Relationship between the United Kingdom and the European Union. White Paper Cm 9593. July 12, London: HM Government, Controller of Her Majesty's Stationery Office

3   White K (2018). 'Government shelves 25-year food and farming plan', The Grocer, https://www.thegrocer.co.uk/buying-and-supplying/sourcing/government-shelves-25-year-food-and-farming-plan/563011.article

4   Lang, T, E Millstone, T Marsden (2017). A Food Brexit: time to get real. Falmer: University of Sussex SPRU, City, University of London, & Cardiff University Sustainable Places Research Institute. July. https://www.sussex.ac.uk/webteam/gateway/file.php?name=foodbrexitreport-langmillstonemarsden-july2017pdf.pdf&site=25

5   Millstone E, T Lang & T Marsden (2017). Should chicken and turkey meat washed in disinfectant be accepted in the UK after Brexit? London: Food Research Collaboration. December http://foodresearch.org.uk/publications/food-brexit-chlorine-washed-turkey-for-christmas/

6   Millstone E, T Lang (2018) Weakening UK food law enforcement: a risky tactic in Brexit. London: Food Research Collaboration. March http://foodresearch.org.uk/publications/weakening-uk-food-law-enforcement/

7   McFarlane G, T Lewis & T Lang (2018), Food, Brexit and Northern Ireland: Critical Issues, London: Food Research Collaboration and Chartered Institute of Enviornmental Health, April http://foodresearch.org.uk/publications/food-brexit-northern-ireland/

8   Davis D (2018). interview with John Humphrys, BBC Radio 4 Today Programme, London: BBC. July 9, 0810 hrs ff. https://www.bbc.co.uk/programmes/b0b90pk1

9   Pennycook R, H Dickinson (2018). Letter to the Prime Minister and Mr Barnier from the Chair and Chief Executive of the British Retail Consortium. London: British Retail Consortium, 4 July. https://brc.org.uk/news/2018/there-will-be-food-supply-issues-in-the-event-of-a-cliff-edge-brexit

10   European Union (2018). EUR Lex: The Internal Market. Brussels: European Union. https://eur-lex.europa.eu/summary/chapter/internal_market.html?root_default=SUM_1_ CODED%3D24 [accessed July 16 2018]

11   Douglas-Scott S (2018). 'Without map or compass: constitutional implications of Brexit', London Review of Books, 40, 10, 40-41, May 24.

12   DEFRA (2010). Food 2030 strategy. London: Department for Environment, Food and Rural Affairs

13   Welsh Government (2015). The Well-Being of Future Generations (Wales) Act 2015. Cardiff: Welsh Government http://gov.wales/topics/people-and-communities/people/future-generations-act/?lang=en

14   House of Commons Library (2018). Service industries: Key Economic Indicators, London: Parliament, July 4,

15   DEFRA (2018). Agriculture in the UK 2017. London: Department for Environment, Food and Rural Affairs, https://www.gov.uk/government/statistics/agriculture-in-the-united-kingdom-2017 pg101

16   ONS Labour Force statistics analysed by IPPR (2017): https://www.ippr.org/news-and-media/press-releases/lack-of-eu-migrant-packers-food-workers-and-cleaners-could-result-in-post-brexit-labour-shortages

17   see PD Hook hatchery cited in Warrell H, S O'Connor (2017) 'UK food industry fears Brexit exodus of EU workers', Financial Times, February 3, https://www.ft.com/content/e22c9d5c-e95c-11e6-893c-082c54a7f539

18   British Summer Fruits (2017). How Brexit could crush our Soft Fruit Industry, & the implications for food prices, the nation's health, the economy & food security. London: BSF http://www.seasonalberries.co.uk/wp-content/uploads/How-Brexit-Could-Crush-The-Soft-Fruit-Industry1.pdf

19   KPMG (2017). Labour migration in the Hospitality sector: a report for the British Hospitality Association. London: KPMG. March. https://www.london.gov.uk/moderngov/documents/s67080/BHA%20KPMG%20Labour%20migration%20in%20the%20hospitality%20sector%20report.pdf

20   Cabinet Office (2017). Public Summary of Sector Security and Resilience Plans 2017. London: Cabinet Office

21   Macdiarmid JL, H Clark, S Whybrow, H de Ruiter, G McNeill (2018). Assessing national nutrition security: The UK reliance on imports to meet population energy and nutrient recommendations, PLoS ONE, 13, 2, e0192649

22   BRC (2018). Letter to Prime Minister May and Mr Barnier, July 4. London: British Retail Consortium. https://brc.org.uk/news/2018/there-will-be-food-supply-issues-in-the-event-of-a-cliff-edge-brexit

23   BRC (2107). A Fair Brexit for Consumers: The Tariff Roadmap for the Next Government. London: British Retail Consortium. April. https://brc.org.uk/news/2017/the-tariff-

roadmap-for-the-next-government

24   Personal communication to T Lang, July 2018

25   Personal communication to T Lang, July 2018

26   Andersons Midland, J Pelham (2017). The Impact of Brexit on the UK Soft Fruit Industry. London: British Summer Fruits. http://www.seasonalberries.co.uk/2017/06/latest-news/summer-fruit-prices-set-to-soar-as-a-result-of-brexit-urgent-action-needed-to-ensure-essential-workforce.html

27   McGuiness T, G Garton Grimwood (2017). Migrant workers in agriculture. Briefing Paper Number 7987, 4 July 2017, London: House of Commons Library. see: https://re-searchbriefings.parliament.uk/ResearchBriefing/Summary/CDP-2018-0054

28   Daneshku S (2017). 'Migrant labour shortage leaves fruit rotting on UK farms', Financial Times, November 3, https://www.ft.com/content/13e183ee-c099-11e7-b8a3-38a6e068f464

29   BBC News (2000), 'Countdown to crisis: Eight days that shook Britain'. London: BBC News Online, 14 September http://news.bbc.co.uk/1/hi/uk/924574.stm

30   BBC News (2018). 'CO2 supplies 'may take two weeks to return to normal'', BBC News Online, 2 July. https://www.bbc.co.uk/news/business-44680014

31   DEFRA (2017). Food Statistics Pocket Book 2016. London: Department for Environment, Food and Rural Affairs. Section 3 https://www.gov.uk/government/publications/food-statistics-pocketbook-2017/food-statistics-in-your-pocket-2017-global-and-uk-supply

32   DEFRA (2017). Food Statistics Pocket Book 2016. London: Department for Environment, Food and Rural Affairs. Section 3 https://www.gov.uk/government/publications/food-statistics-pocketbook-2017/food-statistics-in-your-pocket-2017-global-and-uk-supply

33   DEFRA (2018). Agriculture in the UK 2017. London: Department for Environment, Food and Rural Affairs, https://www.gov.uk/government/statistics/agriculture-in-the-united-kingdom-2017 pg95

34   D Trump, 'Trump's Brexit Blast', The Sun, 13 July 2018, https://www.thesun.co.uk/news/6766531/trump-may-brexit-us-deal-off/

35   Aldrick P (2017) 'Keep EU market access or risk trade deal, warns Wilbur Ross, the US commerce secretary', The Times, November 7. https://www.thetimes.co.uk/article/keep-eu-market-access-or-risk-trade-deal-warns-wilbur-ross-the-us-commerce-secretary-mrj565rg5

36   Partington R (2017). 'Trump adviser Ross says UK-US trade deal will mean scrapping EU rules', The Guardian, November 7. https://www.theguardian.com/business/2017/nov/06/trump-ross-says-uk-us-trade-deal-eu-brexit-chlorinat-ed-chicken

37   Personal communication to T Lang, July 2

38   DEFRA (2018). Agriculture in the UK 2017. London: Department for Environment, Food and Rural Affairs, pg97

39   De Ruiter H, J Macdiarmid, et al (2016). Global cropland and greenhouse gas impacts of UK food supply are increasingly located overseas. Journal of the Royal Society Interface, 13, http://dx.doi.org/10.1098/rsif.2015.1001

40   Information given by port health officers and EHOs at CIEH Year Ahead conference, London: Chadwick Court, Dec 7, 2017

41   van Berkum S, RA Jongeneel, HCJ Vrolijk, MGA van Leeuwen, JH Jager (2016). Implications of a UK exit from the EU for British agriculture - Study for the National Farmers' Union Wageningen: LEI Wageningen UR, April https://www.nfuonline.com/assets/61142

42   AHDB (2017). Brexit Scenarios: an impact assess-ment. Market Intelligence. Stoneleigh Park: Agriculture & Horticulture Development Board. October https://ahdb.org.uk/brexit/documents/Horizon_BrexitScenarios_11oct17.pdf

43   Personal communication to T Lang , 2009

44   Mason P & T Lang (2017). Sustainable Diets. Abing-don: Routledge

45   Gladek E, M Fraser, G Roemers, et al (2016). The Global Food System: An Analysis - report to WWF. Amsterdam: Metabolic & WWF

46   UN (2015). Sustainable Development Goals, agreed at the UN Summit, September 27-29 2015: https://sustaina-bledevelopment.un.org/post2015/summit

47   UNFCC (2015). Paris Climate Change Accord. Paris : United Nations Framework Convention on Climate Change http://ec.europa.eu/clima/policies/international/negotia-tions/paris/index_en.htm

48   UN (1992). Framework Convention on Biological Di-versity [and additions e.g. Cartagena Convention] Rome: Food and Agriculture Organisation, 3rd edition. http://www.fao.org/fileadmin/templates/soilbiodiversity/Downloadable_files/cbd-handbook-all-en.pdf

49   Garnett T (2016). Plating up solutions: Can eating patterns be both healthier and more sustainable? Science, 353, 6305, 1202-1204

50   Monteiro C, J-C Moubarac, R Levy et al (2018). 'Household availability of ultra-processed foods and obesity

in nineteen European countries', Public Health Nutrition, 21, 1, 18-26

51   CEDAR (2018). University of Cambridge: http://www. feat-tool.org.uk/

52   See trade statistics in DEFRA (2017), Agriculture in the UK 2016. London: DEFRA, chapter 13

53   Defra (2018). Agriculture in the UK 2017. London: Department for Environment, Food and Rural Affairs. May. Chapter 8

54   Trussell Trust (2017). Mid Year Stats, Salisbury: Trussell Trust, Sept. https://www.trusselltrust.org/news-and-blog/latest-stats/mid-year-stats/

55   Public Health England (2017). Health Profile for England, London: PHE, Chapter 5 https://www.gov.uk/government/publications/health-profile-for-england/chapter-5-inequality-in-health

56   NHS Scotland (2017). http://www.healthscotland. scot/health-topics/diet-and-obesity/food-and-diet

57   Cancer Research UK (2016). Ad Brake: Primary school children's perceptions of unhealthy food advertising on TV, London: CRUK 5 July

58   Obesity Health Alliance (2017); figures calculated from The Lancet, Public Health England and The Grocer FMCG spend: http://obesityhealthalliance.org.uk/2017/10/11/press-release-health-costs-obesity-soaring-junk-food-companies-pour-millions-advertising/

59   Hughes L (2016). Daily Telegraph: http://www. telegraph.co.uk/news/2016/06/07/more-spent-on-treating-obesity-related-conditions-than-on-the-po/

60   Parker G, J Pickard, S Donnan, A Beattie (2017). 'Liam Fox seeks to narrow focus for post-Brexit US trade deal: Trade minister seeks accord on services as problems loom on goods and agriculture', Financial Times, October 23, https://www. ft.com/content/2f8c8a8a-b711-11e7-8c12-5661783e5589

61   Wasley A (2018). 'Dirty US meat could flood into UK after a Brexit Trade Deal', Bureau of Investigative Journalism and The Guardian, 21 February, https://www.thebureauinvestigates.com/stories/2018-02-21/dirty-us-meat-could-come-over-here-after-brexit

62   In 2016, Jacob Rees-Mogg MP mooted to the Treasury Select Committee that standards that were "good enough for India" could be good enough for the UK. See the exchange before the Treasury Select Committee: http://www.independent.co.uk/news/uk/politics/brexit-safety-standards-workers-rights-jacob-rees-mogg-a7459336.html

63   Lightfoot W, J Burke, N Craig-Harvey et al (2018).

Farming Tomorrow: British agriculture after Brexit. London: Policy Exchange

64   DEFRA 2018). 'Food and drink export sales soar in Brexit boost', 11 February, London: Department for Environment, Food and Rural Affairs. https://www.gov.uk/government/news/food-and-drink-export-sales-soar-in-brexit-boost

65   Walker AB, B Bell, RE Elliot (1997). Aspects of New Zealand's Experience in Agricultural Reform Since 1984. Wellington: Ministry of Agriculture and Forestry

66   Webster J (2017). What can the UK learn from New Zealand subsidy reforms?, Stoneleigh: Agriculture & Horticulture Development Board. https://ahdb.org.uk/brexit/documents/What_can_the_UK_learn_from_New_Zealand_subsidy_reforms.pdf

67   DEFRA (2017), Total Income from Farming Figures 2016. London: Department for Environment, Food and Rural Affairs.https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/663429/agriaccounts-tiffstatsnotice-30nov17.pdf

68   Kay A (2018). 'Defra makes decision to let quarter of UK farms 'disappear', Farmers Guardian, March 29, https://www.fginsight.com/news/news/defra-makes-decision-to-let-quarter-of-uk-farms-disappear-57116

69   Rt Hon Michael Gove MP speech to Oxford Farming Conference, Jan 5 2018. https://www.gov.uk/government/speeches/farming-for-the-next-generation

70   Pickard J (2017). 'Brexit secretary admits there are no impact papers', Financial Times, December 6. https://www.ft.com/content/8ca38822-da75-11e7-a039-c64b1c09b482

71   YouGov (2016). How Britain voted. June 27, London: YouGov https://yougov.co.uk/news/2016/06/27/how-britain-voted/

72   Mile End Institute QMUL (2018). Grassroots, Britain's Party Members. London: Queen Mary University of London, Mile End Institute. 4 January https://www.qmul.ac.uk/media/news/2017/hss/survey-of-britains-party-members-reveals-glaring-contrasts-between-tories-and-other-parties.html

73   Blitz J (2018). 'Why Jeremy Corbyn is moving on Brexit', Financial Times, 23 February, https://www.ft.com/content/d8063d7c-1897-11e8-9376-4a6390addb44

74   BBC (2018). 'Jeremy Corbyn backs permanent customs union after Brexit', London: BBC News, 26 February, https://www.bbc.co.uk/news/uk-politics-43189878

75   Morris M (2018). Have your cake or eat it? New findings on public attitudes to Brexit (part two). London: IPPR. 6 March. https://www.ippr.org/research/publications/have-

your-cake-or-eat-it

76   McFarlane G, T Lewis & T Lang (2018). Food, Brexit and Northern Ireland: Critical Issues. London: Food Research Collaboration and Chartered Institute of Environmental Health, April 10, http://foodresearch.org.uk/publications/food-brexit-northern-ireland/

77   The Economist (2017). 'Wobbling into the World Trade Organisation. Brexiteers claim that trade on WTO terms would be fine. Wrong', The Economist, 30 November, https://www.economist.com/britain/2017/11/30/brexiteers-claim-that-trade-on-wto-terms-would-be-fine.-wrong

78   Parker G (2018). 'Brexit puts Conservatives on the edge of a breakdown', Financial Times, July 13. https://www.ft.com/content/d5532036-866f-11e8-96dd-fa565ec55929

79   Personal communication to T Lang, April 25 2018

80   Eustice G (2018). Hearing at House of Lords EU Environment & Energy Committee, London: House of Lords. https://parliamentlive.tv/Event/Index/040d0036-10ec-4dab-a693-8abb5f3f2a4d

81   Grayling C (2018). BBC TV Question Time, London: BBC, 15 March. https://www.bbc.co.uk/news/av/uk-politics-43425055/chris-grayling-no-post-brexit-lorry-checks-at-dover

82   Answers to Written Parliamentary Questions by Caroline Lucas MP, WPQs 158212, 158719, 158720,   https://www.parliament.uk/business/publications/written-questions-answers-statements/written-questions-answers/?house=commons%2Clords&max=20&member=3930&page=1&questiontype=AllQuestions

83   information given to CIEH Year Ahead conference, London: Chadwick Court, Dec 7, 2017

84   BBC (2018). 'Post-Brexit border checks 'may triple queues' to port'. London: BBC Newsonline, 12 March, https://www.bbc.co.uk/news/uk-england-kent-43318258

85   Craven N (2018). 'Brexit's 2-minute border bombshell: A few minutes extra to check lorries at a 'frictionless' Dover border... could cause tailbacks 30 MILES long', Mail on Sunday, 18 March, http://www.dailymail.co.uk/news/article-5514315/Extra-checks-Dover-border-cause-tailbacks-30-MILES-long.html

86   Lang T, E Millstone, T Marsden (2017). A Food Brexit: time to get real: a Brexit Briefing, Brighton: SPRU University of Sussex, 17 July
https://www.sussex.ac.uk/webteam/gateway/file.php?name=foodbrexitreport-langmillstonemarsden-july2017pdf.pdf&site=25

87   Millstone E, T Lang, T Marsden (2017). Should chicken and turkey meat washed in disinfectant be accepted in the UK after Brexit?' London: Food Research Collaboration. December. http://foodresearch.org.uk/food-brexit-chlorine-washed-turkey-for-christmas/

88   Highmore CJ, JC Warner, SD Rothwell, SA Wilks, CW Keevil. (2018) 'Viable-butnonculturable Listeria monocytogenes and Salmonella enterica serovar Thompson induced by chlorine stress remain infectious', mBio, 9, 2, March/April 20189:e00540-18. https://doi.org/10.1128/mBio.00540-18

89   Sustain (2018) 'Fears new trade deals with US will increase UK food poisoning' London: Sustain. February 21 https://www.sustainweb.org/news/feb18_US_foodpoisoning/

90   Stevenson P (2018). A better Brexit for farm animals: what the Government must do to protect welfare standards, London: Food Research Collaboration and Guildford: Compassion in World Farming, June 27, http://foodresearch.org.uk/publications/a-better-brexit-for-farm-animals-what-the-government-must-do-to-protect-welfare-standards/

91   Pacelle W (2014). 'Banned in 160 Nations, Why is Ractopamine in U.S. Pork?', LiveScience, July 26, at https://www.livescience.com/47032-time-for-us-to-ban-ractopamine.html and https://en.wikipedia.org/wiki/Ractopamine

92   van Zwanenberg P, E Millstone (2005). BSE: risk, science and governance, Oxford: Oxford University Press, Chapters 4-6

93   Food Standards Agency (2018). Regulating Our Future key documents. London: FSA https://www.food.gov.uk/regulating-our-future-key-documents

94   Cabinet Office (2017). Review of Regulatory Futures. London: HM Government, January 10. https://www.gov.uk/government/publications/regulatory-futures-review

95   Kane U (2018), Regulating away our safety: will food safety go the way of health and safety?, Bexhill-on-Sea: Rother & Wealden Shared Environmental Health Service

96   See https://www.food.gov.uk/enforcement/monitoring/laems and https://www.food.gov.uk/enforcement/monitoring/laems/mondatabyyear [accessed 4 February 2018]

97   See https://www.food.gov.uk/enforcement/monitoring/laems and https://www.food.gov.uk/enforcement/monitoring/laems/mondatabyyear [accessed 4 February 2018]

98   New Zealand Government (2016) Food Act 2014, Wellington: Food Safety New Zealand. available at http://www.mpi.govt.nz/food-safety/food-act-2014/

99   Cabinet Office (2017). Review of Regulatory Futures. London: HM Government, January 10. https://www.gov.uk/

government/publications/regulatory-futures-review

100   Robinson Y (2017), Summary Report of the Pilot
Project on the Potential for Recognition of the BRC Global
Standard for Food Safety, London: FSA, September , available
at https://www.food.gov.uk/sites/default/files/media/docu-
ment/fsa-brc-report-oct17.pdf para 2.12

101   FSA (2018), Primary Authority National Inspection
Strategy Draft Criteria and Guidance, Draft for comment by
external stakeholders, version 1, 28 March 2018, London:
Food Standards Agency. https://www.food.gov.uk/sites/
default/files/media/document/PA%20NIS%20Draft%20Guid-
ance%20on%20NIS%20Criteria.pdf

102   Robinson Y (2017), Summary Report of the Pilot
Project on the Potential for Recognition of the BRC Global
Standard for Food Safety, London: Food Standards Agency.
https://www.food.gov.uk/sites/default/files/fsa-brc-report-
oct17.pdf accessed 10 October 2017, p. 5 paragraph 1.8

103   Robinson Y (2017), op cit, paragraph 2.14

104   Food Standards Agency (2018). Regulating our
Future, London: FSA. p. 13

105   Welsh Government (2016). Written Statement
- Welsh Government Position Statement in Response to
Proposals Within the Food Standards Agency's "Regulat-
ing our Future" Programme of Work. Cardiff: Wales Govern-
ment. 15 December. https://gov.wales/about/cabinet/
cabinetstatements/2016-new/food/?lang=en

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