1. Introduction: what needs to be rethought?

Food is at the very centre of life itself. It is the means by which we sustain ourselves, but it is much more than that. The way in which we consume it has a considerable effect on our health and well-being, for example in relation to obesity. It provides the setting for convivial gatherings with family and friends. The food we eat and the way in which we consume it is an expression of cultural preferences and values. The way in which it is produced raises profound ethical issues, in particular about the treatment of animals as sentient beings. Food production has a considerable impact on the environment and in turn is impacted upon by the environment, notably in relation to climate change. There is an increasing recognition that the production and consumption of food needs to be considered holistically, what the European Union (EU) terms a Farm to Fork Strategy.

The importance of food means that it has been a long-term interest of governments which have intervened in food production in a variety of ways. This intervention has often been broader and deeper than in other sectors of the economy, and has occurred even in countries that engage in relatively little market intervention. It has led to a pattern of agricultural ‘exceptionalism’ in terms of institutions and policy, although that has experienced some erosion in the 21st century. Because of their tendency to be organized in distinct silos serving particular purposes or clienteles, governments have found it difficult to tackle the challenges associated with food in the holistic way that they require. A study of food policy in the United Kingdom (UK) found that 16 different departments were involved, although seven of these were of key importance. ‘Food policy-making is thus not only dispersed, but can also be opaque’ (Parsons, Sharpe and Hawkes, 2020, p. 8). Policy has too often been fragmented and even contradictory.

It is possible to become overly preoccupied with government policy which often fails to achieve its objectives because of the use of inadequate or insufficiently targeted policy instruments. It is easy to overlook the host of private actors associated with the production and consumption of food. These are many and varied (see Table 1.1), and very often public policy objectives or substitutes for them are achieved by private actors.
At the core of this book is an argument that there are four principal drivers of change in food and agriculture. The first of these is the structure of the industry itself, ranging from the individual farmer and the input and output industries they are served by, through processors and traders, to caterers and retailers. Second is technology, which has had a transformative effect on food production and offers considerable, although sometimes overstated, potential for the future. Third are changing patterns of consumer demand, in part driven by increased prosperity and higher levels of knowledge about food. Fourth is the role of the state and a variety of international governance bodies.

**FROM EXCEPTIONALISM TO POST-EXCEPTIONALISM**

The policy framework within which agriculture and food production has operated in the 21st century has changed substantially; indeed this process began in the 20th century. Agricultural policy could once be characterized as ‘exceptional’ (Grant, 1995). What this meant was that agriculture was treated differently from other sectors of the economy, with the whole emphasis on the primary production end of the food chain. Agriculture benefited from distinctive policies which included high levels of subsidy and protection even in otherwise market-oriented economies. It had a distinctive set of institutions concerned with its needs. This was underpinned by a set of ideas that justified this special treatment. Agriculture formed a distinctive ‘policy community’ with a relatively unchanging set of participants and agreed ‘rules of the game’. High entry barriers, aided by the complexity of policy, made it difficult for out-
### Table 1.2 Exceptionalism and post-exceptionalism

<table>
<thead>
<tr>
<th>Exceptionalism</th>
<th>Post-exceptionalism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distinctive institutions concerned with the perceived needs of agriculture</td>
<td>Some erosion of distinctive institutions</td>
</tr>
<tr>
<td>Substantial subsidies to agriculture</td>
<td>Some reduction in subsidies</td>
</tr>
<tr>
<td>Policy instruments for delivering subsidies are market distorting, e.g., providing artificial floor to market</td>
<td>Policy instruments ‘decoupled’ from production</td>
</tr>
<tr>
<td>Principal policy objective to maximize production</td>
<td>Other policy objectives, particularly environmental, assume a greater importance</td>
</tr>
<tr>
<td>Limited range of interests admitted to policy community, principally farmers</td>
<td>Wider range of interests admitted to policy community, including environmentalists</td>
</tr>
<tr>
<td>Agriculture outside international trade system</td>
<td>Agriculture brought within international trade system</td>
</tr>
<tr>
<td>Specialist commodity boards, e.g., for milk</td>
<td>Switch to a contract-based system</td>
</tr>
<tr>
<td>Specialist institutions for providing agricultural finance</td>
<td>Agricultural finance provided by general banking system or other providers</td>
</tr>
<tr>
<td>Favourable tax treatment</td>
<td>Most favourable tax arrangements remain in place</td>
</tr>
<tr>
<td>System of distinctive agricultural education and training institutions</td>
<td>Some institutions are closed, merged or experience budget reductions</td>
</tr>
<tr>
<td>National media television programmes devoted to agriculture</td>
<td>Television programmes address a ‘countryside’ agenda that appeals to an urban audience</td>
</tr>
</tbody>
</table>

Introduction: what needs to be rethought?

Considerers to exercise any influence on policy. The overall emphasis was ‘productionist’, that is, maximizing production as efficiently and cheaply as possible.

Exceptionalism has given way to post-exceptionalism. What this means is that policy has become less distinctive, along with special institutional arrangements. The result is a more fragmented and less coherent policy landscape. New opportunities are created for private regulation by firms or specially created bodies, or through forms of co-regulation between the private sector and government. Exceptional features have not disappeared altogether, but their importance has diminished. New considerations, such as environmental impacts, have entered into the policy calculus. It should be added that this process has not proceeded at an even pace between countries or even within countries. Table 1.2 attempts to summarize the principal differences between exceptionalist and post-exceptionalist policy paradigms. Two notes of caution are necessary. The exceptionalist paradigm represents a relatively steady state where any change is usually incremental. The post-exceptionalist paradigm is much less stable and more dynamic. In many cases it is still in transition and has not reached an end state that can be accurately characterized. Second, it is important to distinguish between changes in the policy discourse and policy...
outcomes. For example, it may be claimed that agricultural policy has undergone a process of ‘greening’, but the policy instruments used may be largely symbolic and have little effect on measurable environmental outcomes.

What were the principal justifications advanced for the exceptional treatment of agriculture? The first is that ‘agricultural producers are faced with unacceptable natural risks’ (Daugbjerg and Feindt, 2017, p. 1568). For all the advances in agronomy, the weather still has a substantial impact on farm production, particularly of crops. If the weather is too cold or too hot, too wet or too dry, this has a substantial impact on levels and quality of output (for example, more energy may be needed to be used to dry grain). This is particularly the case if the weather is unfavourable at the time of planting and early growth, or at harvesting. Storm damage can have a particularly serious impact at harvest time. Climate change is increasing the incidence of unpredictable changes in the weather. It has been argued that the best policy response is for farmers to insure themselves against severe weather events, but in practice the premiums could be too high to make it worthwhile. Selling crops forward at an agreed price can provide some security, but the opportunity to sell at a higher price at the time of production may be missed, or it may even be difficult to produce the agreed quantity.

Pests and diseases can also ravage crops. To some extent their impact has been reduced by the availability of an armoury of synthetic plant protection products, with farmers advised on the type of product to be used and when to apply it by private sector agronomists. However, some of the more useful products have been banned because of judgements about their harmful effects. For example, neonicotinoids were crucial to successful oil seed rape (canola) production, but were banned by the EU because of what was claimed to be their harmful effect on bee populations. As a consequence, there was a substantial reduction in oil seed rape plantings, and this had an effect on agronomy as it was a very useful break crop. Genetically modified crops can give protection against insect pests, but are themselves highly controversial.

The second justification advanced for exceptionalism was that ‘in a growing economy farm incomes may be chronically low’ (Daugbjerg and Feindt, 2017, p. 1568). In Europe this led to a broader concern that relatively impoverished small-scale farmers might become a source of support for political movements of the extreme right or left. Of course, there has been a substantial substitution of capital for labour in agriculture, and displaced farm labourers have been able to move into less arduous and more lucrative occupations in other sectors of the economy. Subsidizing farm production is also a highly inefficient way of overcoming the farm income problem, as the bulk of the subsidies go to larger-scale farmers who have less need of them. Ideally subsidies would be used for investment that would improve the productivity of the farm business,
thus generating a higher income, but in practice they are often diverted into consumption.

The third justification for exceptionalism is that it contributes to food security. At the time of the formation of the Common Agricultural Policy (CAP), the Cold War context led to concerns about the reliability of supplies arriving by sea, given that Europe was then a net importer of food. Farmer organizations often equate farm security with a high level of domestic self-sufficiency, but the debate about food security has widened beyond this narrow productionist objective. Food security concerns might be justified if a country was reliant on one external supplier to make up a shortfall in domestic production, but in practice this is never the case. Nevertheless, those writing from a radical perspective consider that it deserves to be taken seriously (Lang, 2021). This argument is returned to below.

Daugbjerg and Feindt (2017) distinguish between three forms of post-exceptionalism, depending on how the four dimensions of ideas, institutions, actors and policies line up. The best chance for post-exceptionalism becoming stable and enduring is when the four dimensions line up and changes complement one another in a pattern of mutual reinforcement. This produces what they term ‘complementary post-exceptionalism’, in which policy reform is accompanied by redesigned policy instruments and the layering of new policies on top of existing ones. A key element here is a move from an exclusive policy community to an inclusive policy network that ‘needs to provide real inclusion of the new policy actors in decision making rather than merely positioning them at the margins of the network’ (Daugbjerg and Feindt, 2017, p. 1579).

However, in many cases alignment of the four policy dimensions may not be achieved, with tense post-exceptionalism the result. This means that there is ‘a transitional constellation in which a mixture of old and new ideational, institutional, interest group and policy components co-exists in an unbalanced way, which undermines its political viability’ (Daugbjerg and Feindt, 2017, p. 1579). This is what Attorp and McAreeavey (2020, p. 309) consider happened in the agri-food sector in Northern Ireland, with political viability undermined ‘due to unbalanced power held by different actors’.

A third real possibility is ‘reversal back to old exceptionalism’ (Daugbjerg and Feindt, 2017, p. 1579). Maintaining the momentum for change may be difficult as policy attention moves elsewhere. The passage of time can ‘work in favour of dissatisfied old client groups and provides opportunities for reversing the incomplete reform’ (Daugbjerg and Feindt, 2017, p. 1580). Another way of looking at this is in terms of a ‘shallow exceptionalism’ represented by the inclusion of new actors and institutions alongside policy instruments representing change, but the ideas around redistribution and farm subsidies remaining intact (Greer, 2017, p. 1599).
‘Post-exceptionalism is not a straightforward concept and there is no consensus in the literature on exactly what it is’ (Attorp and McAreavey 2020, p. 303). Its very ambiguity offers opportunities for the powerful to secure policy leverage and legitimacy. In their analysis, Attorp and McAreavey found a shift of power from primary producers to corporate business, specifically food processors and retailers. The next section examines three areas in which there have been significant changes in policies, policy instruments and institutions. However, this does not mean that there has not been an incomplete and fragile transition to post-exceptionalism.

THE EROSION OF EXCEPTIONALISM

Levels of Subsidy

As is evident from Table 1.3, levels of subsidy as a percentage of gross farm receipts have declined significantly over time, a process that started in the late 1980s. The overall Organisation for Economic Co-operation and Development (OECD) figure fell from 38 per cent in 1986 to 18 per cent in 2019, although that is still a significantly higher figure than would be found in other economic sectors. The EU figure has fallen from nearly 40 per cent to under 20 per cent; and the United States figure has halved. Japan still has a high level of subsidy, but it has fallen by a third. The figures for Norway and Switzerland remain high, but they have substantial areas of remote and mountainous farming that could not survive without generous subsidies.

Subsidies in Australia appear to have almost disappeared, but a note of caution is necessary. Policies to relieve drought may not be as straightforward as they seem, as the definition of drought may be socially constructed rather than based on objective criteria. The OECD noted in 2020:

Challenging farming conditions due to continued drought have seen increasing use of response measures such as concessions on credit, water rates, fodder transport subsidies and additional ad hoc payments. These contrast with the past approach aimed at strengthened farm resilience to drought as a normal farming condition and may encourage risk-taking by producers. (OECD, 2020a)

One also has to be aware of ‘beneath the radar’ interventions below the federal government level: ‘some state and territory governments continued to employ measures that may encourage risk-taking by producers, including the provision of fodder transport subsidies, water transport subsidies, and other ad hoc payments’ (OECD, 2019, p. 126).

New Zealand removed all subsidies to agricultural producers as part of its post-1984 reforms. Prior to those reforms, New Zealand had a relatively high
Introduction: what needs to be rethought?

degree of regulation throughout its economy. With a change in government in 1984 accompanied by a severe exchange rate crisis and a looming fiscal crisis, New Zealand undertook widespread liberalization. The pace and extent of the reform programme was impressive. In summary, New Zealand removed all financial controls, floated its exchange rate, undertook major privatization of state enterprises, relaxed labour market controls, and removed most import tariffs and regulations.

Subsidies have been virtually eliminated in New Zealand and it is often offered as an exemplar of how agriculture can survive and indeed prosper in the absence of transfers from government. It is important to understand the context in which reforms took place. New Zealand was suffering from fixed exchange rates, the Think Big energy projects and high inflation, leading to a fiscal crisis. The subsidies were in place for a relatively short time and were also offered to manufacturing to offset the effects of a high exchange rate. Capitalization into asset prices did not have the same impact as elsewhere. For a long time New Zealand agriculture enjoyed preferential access to UK markets at guaranteed prices, but in the 1960s commodity prices fell.

The agriculture subsidies were relatively short-lived. Until the mid-1970s, support levels were relatively low. However, the introduction of Supplementary Minimum Payments (SMPs) in 1978 – a form of deficiency payment that favoured the sheep breeding flock – followed swiftly by a raft of other measures, marked a rapid escalation in support levels. These measures included: incentives for land development; concessionary livestock valuation schemes; preferential credit for farm purchase; tax concessions; and fertilizer subsidies. Most were phased out in 1984, with some transitional arrangements persisting until 1986.

Table 1.3    Producer support estimate as a percentage of gross farm receipts

<table>
<thead>
<tr>
<th>Country and international bodies</th>
<th>1986 (%)</th>
<th>1990 (%)</th>
<th>2019 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>13</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Canada</td>
<td>38</td>
<td>33</td>
<td>9</td>
</tr>
<tr>
<td>European Union</td>
<td>39</td>
<td>33</td>
<td>19</td>
</tr>
<tr>
<td>Japan</td>
<td>65</td>
<td>52</td>
<td>41</td>
</tr>
<tr>
<td>New Zealand</td>
<td>20</td>
<td>2</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Norway</td>
<td>69</td>
<td>71</td>
<td>58</td>
</tr>
<tr>
<td>Switzerland</td>
<td>75</td>
<td>71</td>
<td>48</td>
</tr>
<tr>
<td>United States</td>
<td>24</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>OECD</td>
<td>38</td>
<td>32</td>
<td>18</td>
</tr>
</tbody>
</table>

Source: Derived from Organisation for Economic Co-operation and Development data.
There were clear changes in land prices and production decisions in response to the changes in incentives. However, some caveats also need to be observed, notably that New Zealand had a relatively simple and short-lived support system, and the removal of subsidies was accompanied by liberalization throughout the wider economy. The impact was felt by those who had changed or bought farms during the period with subsidies, and subsequently had debt that was not sustainable after the prices fell.

**Policy Instruments**

Policy instruments are not just the means by which policies are implemented and therefore of secondary importance (Grant, 2010). They shape policy and influence the range of policy options that is available. Changes in the CAP can be traced through the disappearance of some policy instruments and the appearance of new ones. They offer a lens through which the significance of policy change can be assessed.

Among the policy instruments that have been dropped or have largely disappeared from the CAP are green currencies and the switchover mechanism; monetary compensation amounts; intervention purchasing; export subsidies; and quotas. The system of green currencies set up a complex parallel system of exchange rates alongside the real system of exchange rates, with monetary compensation amounts a means of attempting to cope with real currency fluctuations. They had a real impact on the amounts of compensation received by farmers and opened up the possibility of manipulation by national governments (Grant, 1981). The arrival of the euro rendered them redundant, showing that changes in other policy arenas can shift the nature of agricultural policy.

Intervention purchasing was a mechanism for the EU purchasing surplus production off farmers and thus providing a floor to the market. Farmers were thus incentivized to overproduce, as the marginal cost of production was usually less than the intervention price. This led to the notorious grain mountains and wine lakes. In an attempt to dispose of this surplus produce, the EU paid export subsidies to traders who then dumped it at a low price on the international market. This practice undermined producers in the Global South; for example, dairy farmers were undercut by skimmed milk powder being made available on local markets. However, there was still a substantial structural surplus of milk in the EU which threatened the budget. Quotas were thus allocated to individual farmers, limiting the amount of milk they produced. As part of a shift from a market intervention policy to a more market-oriented system of support, these policy instruments have virtually disappeared. Substantial tariff protection, however, has remained in place.

New policy instruments included the Single Farm Payment (SFP)/Basic Payment; cross-compliance; modulation and decoupling. Bringing agriculture
Table 1.4  Producer support estimates

<table>
<thead>
<tr>
<th>Year</th>
<th>European Union (%)</th>
<th>United States (%)</th>
<th>OECD (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986</td>
<td>39</td>
<td>24</td>
<td>38</td>
</tr>
<tr>
<td>1990</td>
<td>33</td>
<td>17</td>
<td>32</td>
</tr>
<tr>
<td>2019</td>
<td>19</td>
<td>12</td>
<td>18</td>
</tr>
</tbody>
</table>


within the Uruguay Round trade negotiations (1986-93) put pressure on the EU to adjust its policies. There was a move towards giving farmers a subsidy that was not directly related to production; although, as it was largely based on historic production, there was still an indirect link. Under the period in office of Franz Fischler as agriculture commissioner from 1995 to 2004 these reforms were consolidated and developed further. A Single Farm Payment (now the Basic Payment) was introduced which decoupled most CAP support from production, although some production-linked schemes are still permitted at national level.

Two new policy instruments, ‘cross-compliance’ and ‘modulation’, were introduced. ‘Cross-compliance requirements ensure that the SFP is only paid to farmers who abide by a series of regulations relating to the environment, animal welfare, plant protection and food safety’ (Swinnen, 2008a, p. 2). Modulation referred to the shift of funds from Pillar 1 (support) to Pillar 2 (rural development), recognizing that the success of the rural economy depends on many activities apart from farming.

These changes in policy instruments led to significant changes in policy outcomes. The Producer Support Estimate (PSE) is an OECD measure of the percentage of gross farm income provided by subsidies. As can be seen from Table 1.4, the EU figure has declined significantly since the late 1980s, although in line with the OECD average.

**Ministries for Agriculture and Their Relationships with Organized Farmers**

The 1947 Agriculture Act placed the Ministry of Agriculture, Fisheries and Food (MAFF, as it eventually became) at the heart of the agricultural policy-making process in Britain. It was responsible for the conduct of the annual price review, which allocated subsidies to farmers through a dialogue with the National Farmers’ Union (NFU) which was given a consultative monopoly based in statute. Policy was intended to avoid a repetition of the depression that had affected agriculture during the inter-war period, and to
increase production of food at a time when rationing was still in force. ‘The country was short of food and willing to pay for it’ (Plumb, 2001, p. 19).

Price guarantees were provided for farmers, and there was a system of deficiency payments to compensate for falls below market prices. This allowed the balancing out of the potentially divergent interests of arable and livestock farmers. Grants were available for a variety of forms of investment on the farm. A system of milk marketing boards, effectively state-sponsored co-operatives, was an important part of the architecture, offering farmers an assured market for their milk, with the monthly ‘milk cheque’ being an important source of cash flow for dairy farmers. The ‘exceptional’ treatment of agriculture was reinforced by a system of agricultural education and programmes for farmers on broadcast media. Free advice was available to farmers through an advisory service. Banks had specialist departments serving farmers and were willing to lend them money, and there was also a government-backed Agricultural Mortgage Corporation.

Agriculture policy was effectively depoliticized and conducted within a closed policy community in which MAFF (as it became in 1954) and the NFU were the two key actors. The Conservatives had warmly endorsed the 1947 Act (passed by a Labour Government) in principle (Self and Storing, 1962, p. 198). The 1947 Act required the Government when setting subsidies to ‘consult such bodies of persons as appear to them to represent the interests of producers in the agricultural industry’, which was interpreted to mean the NFU and its sister organizations in Scotland and Northern Ireland. The NFU was granted an effective representational monopoly. ‘The NFU has derived considerable political advantage from its symbiotic relationship with MAFF: through the Ministry’s single-minded commitment to the farmers’ cause, through the NFU’s entrenched role in policy making and through the privileged access on a routine basis to centres of decision making, including the highest levels of government’ (Cox, Lowe and Winter, 1986, p. 185). ‘It was more than a pressure group of loyal farmers – it became the seat of the agricultural establishment, and reflected the moods and needs of all its members’ (Plumb, 2001, p. 19).

MAFF was seen as a client ministry, the spokesperson of farmers within government, although the ministry itself would insist that its role was to balance the demands of farmers against wider public policy considerations. A biographer of a 1950s Minister of Agriculture noted:

The farmers have always regarded the Ministry of Agriculture as being their Ministry; they have conceived of it as being the watchdog of farmers’ prices and have created in their own minds an image, and an image not infrequently true, of the Minister of Agriculture fighting a rearguard action on their behalf in the Cabinet who are unduly influenced by the urban argument in favour of cheap food. (Allen, 1958, p. 146)
The Scottish Office took lead responsibility for agriculture in Scotland and sat on official committees in Whitehall, giving agriculture additional representation within the government machine.

The NFU (and its Scottish and Northern Irish counterparts) developed as a very effective organization which was able to manage potential tensions within the farming community; for example, between livestock and arable producers. The NFU managed to exert considerable influence despite the fact that farmers were too small a proportion of the electorate to have a major impact on election outcomes, while agriculture accounted for a declining share of the workforce and a relatively small proportion of gross domestic product (GDP).

The agricultural policy community was helped by the fact that there was little understanding of the complexities of farm policy outside MAFF. The Crossman Diaries, which discussed the 1964-70 Labour Government, showed all too clearly that Cabinet ministers often did not fully understand the implications of the decisions they were making about agricultural policy. Crossman, as a farm owner, knew all too well that his colleagues were giving farmers a good deal, when they thought they were being tough. On one occasion, Cabinet assented to a compromise which in fact represented ‘a very generous concession to the farming industry’ (Crossman, 1976, p. 239).

The development of environmental and conservation groups brought new players into the agricultural policy community and started to challenge the consensus that the key objective of policy should be the maximization of production. The expansion of production had relied on intensive methods of farming, and in particular the use of fertilizers and agrochemicals. The effect of these in terms of water pollution attracted increasing attention and eventually became the subject of EU directives. There was also concern about the impact of modern methods of farming on biodiversity, for example through the stripping out of hedgerows. The Royal Society for the Protection of Birds (RSPB) became an increasingly influential organization, with over 1 million members, and farm bird populations became used as a measure of environmental stress. Issues increasingly became framed in environmental and conservationist terms, and this disrupted the dialogue between MAFF and the farmers’ organizations.

The initial response of MAFF to these new challenges was to respond ‘with a combination of apparent disregard and studied gradualism’. It ‘consistently worked to affirm the existing order, defending meanwhile its distinctive administrative territory’ (Cox, Lowe and Winter, 1986, p. 193). These authors concluded that: ‘the agricultural policy community is now having to cope with considerable disruption. The sector’s preferred and long regularised arrangements are being scrutinised and their rationale questioned in a manner hitherto unprecedented in the post-war period’ (Cox, Lowe and Winter, 1986, p. 209).
MAFF underwent a decline in its standing. Its permanent secretary from 1993 to 2000 noted: ‘MAFF was not popular with the media or in Whitehall … In Whitehall the Treasury regarded the CAP as a waste of money. Having a hostile Treasury is, for a government department, not a good idea’ (Packer 2006, p. 91). For MAFF, ‘the bottom line was that if real trouble arrived there would be no friends in Whitehall or the media to help’ (Packer, 2006, p. 91). The ministry and its policies had been drained of legitimacy. This real trouble arrived with the BSE crisis in 1996. The BSE crisis and the handling of a subsequent foot-and-mouth disease outbreak called into question the effectiveness of MAFF, and in June 2001, following the Labour victory in the general election, it was merged by the Blair Government with parts of the Department of Environment, Transport and the Regions to form the Department of Environment, Food and Rural Affairs (Defra).

In response to criticisms that it was insufficiently focused on farming and its economic sustainability, the Government rejected the notion that it should prioritize the needs of farmers. Lord Whitty, a Defra junior minister, told the House of Commons Environment, Food and Rural Affairs committee that:

it is important to say that we are not the ministry for farmers; we are the ministry for rural affairs and the environment … the criticism that we are not sufficiently farmer-focused seems to me a wrong one and one that leads to a misunderstanding of the changes to the Government machinery that we intended to achieve. (House of Commons, 2002)

As awareness of the environmental damage caused by intensive farming methods grew, and as environmental organizations developed in terms of support and professionalism, the basic production-oriented assumptions of the policy community began to be challenged. MAFF came to be seen as a political dinosaur, with few friends outside the farming community. Ultimately it was two animal health crises – foot-and-mouth disease, and BSE with its serious implications for human health – that led to fundamental change. The replacement of MAFF by Defra was important both symbolically and substantively.

The department has not necessarily been hostile to farming interests: a close dialogue with farming interests has continued. However, it has often seemed to lack a sense of strategic direction, which is perhaps not surprising given its disparate responsibilities. This has not been helped by a rapid turnover of ministers, who have either gone on to more important posts or saw their careers brought to an end. The department has also suffered from particularly severe reductions in staff as part of austerity, leading to the loss of knowledgeable staff and the dispersal of experienced teams.

The British case is something of an outlier in terms of the dismantling of a ministry of agriculture. The United States Department of Agriculture has,
for example, survived. This may reflect a tendency for neoliberal ideas to have a particularly strong influence on the content and delivery of policy in the UK. The changes of title of the relevant department in New Zealand (Ministry of Primary Industries) may be largely a labelling exercise rather than reflecting a real change in policy orientation. However, in Sweden the Ministry of Agriculture became the Ministry for Rural Affairs and in 2015 was incorporated in the Ministry of Enterprise. Australia had a reform similar to that in Britain when the Department of Agriculture, Water and the Environment took all the functions of the previous Department of Agriculture and the environment functions of the previous Department of Environment and Energy.

**TOWARDS A NEW PARADIGM**

It is evident there is a need for a new paradigm that replaces exceptionalism and gives a more coherent and dynamic structure to post-exceptionalism. Progress in this direction has so far tended to be spasmodic and hesitant. What is needed is a comprehensive ideational framework that points agricultural and food policy in a new direction. By itself, this is not enough. If there are no mechanisms to put new ideas into practice, in particular through effective implementation, they simply represent a statement of good intentions that serves a useful symbolic political purpose but achieves nothing. One implication is that institutional arrangements may need further and more thorough reform.

**Is Food Security Relevant to Radical Thinking?**

For many analysts food security, or in particular national or European self-sufficiency, has been seen as an exhausted paradigm which has been used to provide a convenient justification for continued high levels of farmer subsidy. It has certainly been a popular argument with farmer organizations. However, Lang (2021, p. 25) ‘sets out seven reasons why we should take food security seriously’ and suggests that the only way to do this is to create a more sustainable food system.

What do we mean by food security? It is important to try to clarify this, as Lang (2021, pp. 106-7) identifies ten concepts associated with the food security debate. When a concept is that protean one has to question whether it is a helpful guide to thinking about either food or the development of new policies. Is it more than a convenient umbrella under which a number of perspectives can shelter?

At one level, ‘The concept of food security is deceptively simple. Essentially, it involves ensuring that all people have access to sufficient, safe and nutritious food to meet their dietary needs and their food preferences and ensure an active
healthy life’ (Rayfuse and Weisfelt, 2012, p. 3). However, this apparently simple formulation, of ensuring that there is enough quality food available in the right place and at the right time and at an affordable price, poses a number of policy challenges. At a global level this involves the ability to grow enough food and transport it to where it is needed, against the background of a growing world population which also acquires new tastes and preferences as it becomes more prosperous.

The Green Revolution of the 1950s and 1960s appeared to offer the promise of sufficient food being made available at lower prices to meet dietary needs and reduce the risk of famine. ‘However, by the end of the 20th century, this progress had stalled and investment in agricultural research and productivity started to fall behind global population growth and food needs’ (Rayfuse and Weisfelt, 2012, p. 8).

In the case of the UK, Lang argues that a false sense of almost complacent belief in food security has developed. He argues that ‘policymakers should put food security at the heart of planning and policy for food in coming years’ (Lang, 2021, p. 4). He advances seven arguments to justify this stance. They relate to: the irrelevance of a persistent imperialist mindset; the just-in-time nature of the food economy; the food trade gap; ecosystem pressures; diet and ill health; social inequalities; and a false sense of security about food.

All of these are good reasons for rethinking food policy, but they require different kinds of response. The vulnerability of the supply chain calls for more effective contingency planning. What remains uncertain is whether reviving the concept of food security can lead to appropriate policy design, or simply a reversion to self-sufficiency arguments which can lead to a continuation of the status quo. It is open to question whether using food security as an organizing concept encourages the holistic approach that is required.

Resilience

One concept that has attracted particular attention in both the academic literature and policy practice is that of resilience. The Covid-19 pandemic reinforced its apparent relevance, and ‘it has become an overarching guiding principle of EU policymaking’ (Meuwissen and Feindt, 2020, p. 3). Perhaps part of its attraction to a variety of audiences is that it is a somewhat protean and ambiguous concept and ‘it is not easy to pin down a precise, unambiguous definition of resilience’ (Nicholas-Davies, Fowler and Midmore, 2020, p. 12). There are a number of meanings, but ‘they all have in common a focus on the ability to respond to change, especially unpredictable, sudden change’ (Darnhofer, 2014, p. 463).

Resilience represents an attempt to understand and devise responses to changes in the environment in which farms and farming systems operate.
Sudden shocks such as those resulting from adverse weather events are nothing new in farming, but there is seen to be a broader shift from a relatively predictable and stable world to one that is more chaotic, volatile and complex. One change is that more traditional forms of knowledge based on an intimate knowledge of the farmed land are being undermined. Thus, ‘the close knowledge of particular blocks of land is being loosened by various forms of technological innovation’ (Nicholas-Davies, Fowler and Midmore, 2020, p. 16).

Broadly speaking, there are four types of challenge. Demographic challenges result from depopulation, ageing farm populations and skilled labour shortages. They require a greater focus on building human capital and on succession issues in farm businesses. Unpredictable economic changes in part result from globalization and cover areas such as market access, price volatility, changing consumer preferences and capital scarcity. They require a more sophisticated understanding of how these shifts impact on farm businesses. In terms of environmental challenges, climate change is at the forefront, but others include soil fertility, pesticide impacts, pollinator losses, and plant and animal diseases. They require a realization that farming practices might have to change quite radically. Institutional and political challenges relate to inadequate and fragmented governance structures, geo-political instability and trade conflicts. They require a willingness to rethink the institutional structures within which farm systems operate.

‘Resilience is about dealing with shocks and stresses’ (Meuwissen et al., 2020, p. 4). It covers robustness or ‘bouncing back’, but also adaptability and transformability which require learning and change. The available evidence suggests that ‘farming systems were generally resilient, but mainly in terms of robustness’ (Reidsma et al., 2020, p. 20). ‘Rather than seeking short-term optimal solutions, [resilience] emphasises the need to enable the adaptability and transformability of systems’ (Darnhofer, 2014, p. 462). Adaptability refers to ‘the capacity to change the composition of inputs, production, marketing and risk management in response to shocks and stresses’ (Meuwissen et al., 2020, p. 6). It is something that a reasonably sophisticated farmer is used to doing, although it may have unintended outcomes at the farm system level; for example, a surplus of a particular commodity. Thus, typical responses to challenges that emerge from discussions with farmers ‘mentioned strategies related to reducing costs, technology implementation and increasing farm size’ (Reidsma et al., 2020, p. 20). Farmers can, for example, engage consultants to review their operations and suggests changes that will increase resilience.

Transformability in the sense of ‘bouncing forward’ is more challenging, and it needs to happen at a farm system level as well as at a farm business level. It requires reorientation such as responding to changing diets, and reorganization which requires an ability on the part of institutions to innovate. It has to be recognized that empirical research with farmers suggests that ‘much change
to farm systems happens gradually’ (Nicholas-Davies, Fowler and Midmore, 2020, p. 13). The longer-term cumulative consequences of these incremental changes require further research. What is evident is that existing economic and political arrangements can stand in the way of transformability. Farming and food is in many respects a conservative sector which only takes on board radical solutions when external shocks occur. Transformations may be frustrated by ‘human mental models which tend to focus on maintaining status quo, overly narrow perceptions of imaginable futures, experts being educated mostly towards improving efficiency, and a series of vested interests, mutual dependencies and institutional path dependence creating lock-in situations’ (Meuwissen et al., 2020, p. 9).

Resilience thinking has clear advantages as an analytical framework. ‘Through the rejection of equilibrium and the emphasis on inherent uncertainties and discontinuities, resilience thinking enables insights into the dynamic interplay of persistence and change’ (Darnhofer, 2014, p. 476). Of course, the response of markets and the actors in them may be to prioritize uncertainty reduction in the short run by a ‘quick fix’ that deals with the immediate problem, rather than looking for more transformative and radical solutions. This suggests the need for policy interventions that challenge conventional thinking and framing of issues, but many of the relevant institutions are geared to managing and maintaining the status quo. They are not set up to provide ‘much more agile responses to surprises and complex dynamics’ (Meuwissen et al., 2020, p. 9). Transformability demands ‘the capacity of a system to radically change, including its identity, paradigms and logics’ (Feindt et al., 2020, p. 4). Yet that radical change may threaten those who have an ideational and material stake in the existing paradigms. The losses are immediate and the gains more elusive.

The Farm to Fork Strategy

The EU’s Farm to Fork Strategy represents an attempt to move towards a sustainable food system as part of the Green Deal (European Commission 2020). It is not suggested that it represents any kind of perfect solution, but second-best solutions are better than nothing. Apart from anything else, some of the confusion of objectives apparent in the CAP shows through in the Commission document. However, it is useful as a scoping exercise that identifies the range of issues that need to be addressed.

The Farm to Fork Strategy has three principal objectives. One is to ensure that the food chain ‘has a neutral or positive environmental impact’. The second is to ensure ‘food security, nutrition and public health’. The third is to preserve ‘the affordability of food, while generating fairer economic returns in the supply chain’ (European Commission, 2020, p. 5).
Given that the first objective is likely to require less use of fertilizers and pesticides and a reduction in intensive farming generally, it is likely to push prices up for consumers and hence come into conflict with the third objective. This affordability objective is particularly beset with tensions. The tariff and other protectionist barriers around the EU necessarily force up the price of food in member states by restricting access to cheaper supplies on the world market, although it is possible to exaggerate the size of this effect. If one is going to generate fairer returns in the supply chain, it is difficult to see how this could be achieved without higher prices for farmers and processors. This tension was, of course, present in the Treaty of Rome, which sought both to ensure that supplies reached consumers at reasonable prices, and to ensure a fair standard of living for the agricultural community.

It would, however, be possible to become too preoccupied with the design flaws of the CAP and to overlook the extent to which there is a sustained effort at new thinking. The value of the Farm to Fork Strategy is that it identifies the issues that need to be tackled in a more holistic strategy. Sustainable food production requires a new green business model. The challenge, of course, is to ensure that this leads to changes in behaviour and practice at enterprise level, rather than being just a series of aspirational statements backed up by poorly targeted incentives and penalties, as has often been the case with the CAP in the past. Fully implemented, the strategy would offer a radical break with past practice.

Some of the biggest challenges relate to pesticides and fertilizers, which have boosted productivity and farm-level returns. The Commission aims to reduce the use of chemical pesticides by 50 per cent by 2030 with a particular emphasis on more hazardous pesticides. This would be achieved by an integrated pest management (IPM) strategy that would rely on alternative control techniques, and also by the greater use of biological plant protection products. The excessive use of nutrients, especially nitrogen and phosphorous, is seen ‘as another major source of air, soil and water pollution and climate impacts. It has reduced biodiversity in rivers, lakes, wetlands and seas’ (European Commission, 2020, p. 7). It is envisaged that fertilizer use will be reduced by 20 per cent by 2030. The Commission is also eager to promote organic farming, with a target of at least 25 per cent of the EU’s agricultural land under organic farming by 2030.

Any new strategy needs to recognize the way in which the food decisions made by consumers are shaped by the choices they are offered by the food chain and the way in which they are marketed to them. The consumer in the supermarket is influenced by the placement of products, the way in which they are presented and, above all, by their price. ‘Food processors, food service operators shape the market and influence consumers’ dietary choices through the types and nutritional composition of the food they produce, their choice
of suppliers, production methods and packaging, transport, merchandising and marketing practices’ (European Commission, 2020, p. 17). This is a comprehensive list, but one could also emphasize the way in which advertising influences consumer choices, particularly in terms of ‘junk food’ which is high in fat, salt and sugar. This is of particular importance in relation to the consumption of such food by children, with ‘pester power’ being reinforced by the clever placement of such goods in store.

The Commission plans to ask food companies to make a number of commitments on health and sustainability. This would cover such areas as reformulating food products to make them healthier; reducing their environmental footprint and energy consumption; ensuring that there is not a tension between food price campaigns and the value of food; and reducing packaging. One has to recognize that there is a tension between some of these requirements and the profit-maximizing nature of companies. On the other hand, companies can save money by using water or energy more efficiently, or by a reduction in packaging. The real challenge is to make changes in the composition of food products and their marketing.

A key target for the EU programme and any equivalent scheme is reducing the rise in obesity rates. ‘Moving to a more plant-based diet with less red and processed meat and with more fruit and vegetables will reduce not only risks of life-threatening diseases, but also the environmental impact of the food system’ (European Commission, 2020, p. 13). The Commission sees the provision of better information for consumers as a key element; but, of course, much depends on the receptivity of consumers to such messages, and whether good intentions are matched by changes in behaviour. The Commission also recommends the use of the tax system to influence consumer behaviour, but this is largely a matter for member states and may be affected by domestic political pressures. Suggestions of a meat tax produce negative reactions, and any such tax could hit poorer consumers harder.

Reducing food loss and waste has often been neglected in public policy, or at least treated as a relatively low priority, notwithstanding that ‘one-third of the food produced for human consumption in the world is lost or wasted’ (Grunert et al., 2019, p. 6). This even applies to the relationship between food waste and climate change (see Chapter 7). Much of this loss occurs before the product reaches the final consumer. Taking a broad perspective which looks at the efficiency of food production as a whole, the loss starts with the evaporation of the crucial asset of water, often through inefficient irrigation systems. There are then pre-harvest losses from drought, flooding, weeds or
pests. Losses in storage, processing and transport can account for as much as a quarter of the total:

The majority of food waste in developing countries occurs mainly at the farm, transporting and processing levels, due to lack of infrastructures in the food chain (cold storage facilities) and absence of investment and knowledge of storage facilities at farm level. India alone wastes 30 to 40% of fresh fruit and vegetables, because of a lack of cold storage at wholesaler and retailer level. (Haas and Petz, 2017, p. 93)

It may also spoil at the retail store; while consumers may not use food quickly enough, or throw it away when it can still safely be used. While environmental concerns may lead people to reduce food waste, food safety concerns may lead them to do just the opposite. Labelling may be misunderstood, leading to exaggerated food safety concerns.

It should be noted that there is also an issue about packaging waste. Food packaging ‘is produced in high volumes, and often has a short and single usage, causing problems relating to waste management and littering’ (Grunert et al., 2019, p. 6). Consumers are particularly concerned about the environmental impact of packaging. However, reducing packaging can be counter-productive in some circumstances. In 2020 there were reports of an increase in the level of food waste in the UK retail sector partly caused by efforts to reduce plastic packaging, leading to temporarily higher levels of vegetable waste (Toma, 2020).

Food waste is estimated to cost the EU economy some €143 billion per year, and is responsible for 15 per cent of all greenhouse gas emissions associated with the food supply chain. ‘Research has shown significant amounts of food are wasted everywhere, at all points of the supply chain and across all commodities. Losses in production are more dominant in developing regions while waste at the point of consumption is more dominant in developed regions’ (WWF-WRAP, 2020, p. 4). The Commission has an ambitious target of halving per capita food waste at retail and consumer levels by 2030. It has been argued that ‘the Farm to Fork Strategy presents a great window of opportunity to reduce food waste by accelerating the transition to a sustainable food system and by proposing legally binding targets for food waste reduction across the EU in 2023’ (WWF-WRAP, 2020, p. 57). Practical steps that can be taken include the measurement of food waste; the extraction of added value from food waste; and voluntary agreements across sectors, regions and nations (WWF-WRP, 2020, pp. 57-8). This is an area where much depends on the behaviour of the individual consumer, and unfortunately the money lost by having to throw away unused produce does not influence behaviour as much as one might think.
Animal welfare is not treated in depth in the Commission document, but is recognized as important. ‘Better animal welfare improves animal health and food quality, reduces the need for medication and can help preserve biodiversity. It is also clear that citizens want this’ (European Commission, 2020, p. 8). A fitness check on EU animal welfare rules was carried out in the winter of 2021/22. It assessed their consistency with food, environmental and single market rules, and the sustainability goals of the EU’s Green Deal and Farm to Fork Strategy. Animal welfare is an area in which trade policy can make an important contribution by improving standards elsewhere in the world.

All of these objectives depend to some extent on knowledge transfer across the food chain. ‘Primary producers have a particular need for objective, tailored advisory services on sustainable management choices’ (European Commission, 2020, p. 18). Such services need to ensure that their advice is tailored to the business needs of farmers; otherwise they will pay more regard to agronomists, consultants and other private sector advisers.

Consumers also need clearly delivered information to help them to make sustainable food choices. Retailers can play a key role here. One also needs to pay attention to which cookery writers on popular cookery programmes on television can influence the perceptions and choices of consumers, on issues of sustainability, diet and nutrition. Their influence has increased as consumers develop a more informed and sophisticated approach to food choices, but is often underestimated.

Last but not least, attention needs to be paid to the way in which farmers are funded; a topic that is neglected in the Commission document. In order to be productive, farmers need to be able to access funds at reasonable rates of interest. The security offered by land makes them attractive borrowers, and funds are available from a variety of sources in what in many ways is a competitive market. However, it is important to consider how far funders are prepared to back projects that have sustainability objectives.

CONCLUSIONS: THE POTENTIAL FOR RADICAL CHANGE

This chapter has highlighted the many actors present in the food chain, the many challenges that it faces, and the legacy of old and outdated ideas and policy-making structures. A holistic view needs to be taken of the food chain which gives sufficient consideration to environmental sustainability and health and well-being, including that of animals. A range of ideational frameworks for a new approach are available, but their hold on decision-makers is not secure. Exceptionalist arguments still have their supporters, and there could be a reversion to old-style policies. More likely is a fragmented and incoherent post-exceptionalist paradigm characterized by inherent contradictions, leading
to policy initiatives and instruments that fall far short of what is required. The dispersed structure of government in dealing with food policy remains a challenge, and there is an interesting question about whether new structures have to precede policy innovations, or whether policy changes will create a demand for new institutional arrangements.

Although government policy, and initiatives by international organizations, will continue to be of key importance in shaping the food chain, one should not underestimate the contribution that can be made by socially responsible private actors, prompted in part by concerns about reputation. There is plenty of scope for public–private partnerships. Consumers can also play a key role through the purchasing decisions they make, but they need clear and unbiased information that is readily available. There is the potential for a radical change in agriculture and food policy, with technological change offering a variety of promising possibilities. There is no lack of rethinking available, but what is important is how far this penetrates policy agendas and leads to innovative and holistic policies. Institutional change is likely to be necessary to make this possible. What is needed is a clear focus on policy objectives and a sense of some urgency, and this is never easy given the crowded agendas that face decision-makers.