Transformation of the food economy: the ‘local’ becomes ‘global’

The production of food is the most basic of all human needs. Like the activities discussed in the previous chapter, it is based upon the extraction of materials from the natural environment. In principle, food production is a renewable activity, although over-production, soil erosion and water shortages can, in effect, make agriculture impossible under certain conditions. Having changed relatively slowly
over long periods of time, the production, distribution and consumption of food have been transformed during the past four decades. They have become increasingly industrialized. In addition, although for millions of people basic subsistence is still the norm and starvation is always imminent, for millions of others food has become as much a statement about lifestyle as about survival. ‘Abundance amidst scarcity’ is a glaring paradox of today’s world.

In some respects, therefore, the modern agro-food industries may seem little different from other manufacturing industries. But, despite the industrialization of much food production, this greatly oversimplifies what are highly complex and geographically differentiated activities. The basic fact remains that food production is fundamentally different from other manufacturing industries in one particular way: it is literally grounded in biophysical processes.

The role of biology in plant and animal growth is key ... on a farm – unlike a factory – it is the biological time necessary for plant and animal growth that dictates the work schedule ... In addition, the land-based character of farm production poses severe constraints to industrialization ... because land is a fixed and limited resource, and because land markets are deeply colored by localized social conditions, farmers cannot easily or quickly adjust their investment in land.

Food production remains an intensely local process, bound to specific climatic, soil and often socio-cultural conditions. At the same time, certain kinds of local production, notably high-value foods, have become increasingly global in terms of their distribution and consumption. For the affluent consumer, with access to the overflowing cornucopias of supermarket shelves, the seasons have been displaced by ‘permanent global summertime’ (PGST). But such apparently idyllic circumstances for affluent consumers have a dark and contentious side.

Producing food for a global market requires huge capital investment and gives immense power to the transnational food producers and the big retailers. It creates serious problems – as well as opportunities – for food suppliers as they become increasingly locked into (or out of) transnational agro-food production networks. Global food production and distribution create huge environmental disturbances in terms of excessive exploitation of sensitive natural ecosystems, the application of chemical fertilizers and pest controlling agents, the increasing attempts to genetically modify seeds, plants and even animals and to ‘patent life’, and the transportation of high-value foods (HVFs) over vast geographical distances. These processes make agro-food an intensely sensitive industry, raising the fundamental question of ‘who owns nature’. It is at the centre of the continuing acrimonious arguments within the WTO to agree a ‘development round’ in the Doha trade round (see Chapter 17).

Cutting across trade issues are those relating to food safety and to the ethics of genetic modification (GM) of seeds, plants and animals. In the past few years, for example, there have been several serious food safety scares: BSE (‘mad cow disease’), foot (hoof) and mouth disease, avian flu and swine flu. Such outbreaks have
a huge impact on agro-food trade and, therefore, on the livelihoods of farmers, growers and distributors. They create massive fluctuations in consumer buying patterns, often out of ignorance. At the same time, there is widespread scepticism – and considerable fear – of genetic modification. Both food safety and GM help to stimulate consumer resistance to the products of the global agro-food industries and to reinforce demands for a return to local sourcing of organically grown products. Without doubt, the agro-food industries have become a battleground with several ‘fronts’: between producers and producers, between producers and consumers, between producers and governments (not least because agro-food is one of the most heavily regulated industries), and between governments. These contentious issues were greatly exacerbated in 2006–8 when food prices surged and millions more people became ‘food insecure’.7

Agro-food production circuits

Production circuits in the agro-food industries are immensely varied.8 In the case of traditional commodities, like grains, the circuit is relatively simple (though more intricate than in the past). In the case of high-value foods, however, which are the primary focus of this chapter, the situation is far more complex. For that reason, we provide several examples here.

Figure 9.1 shows the highly complex structure of the US chicken (broiler) production circuit. This is an industry which has become increasingly dominated by very large integrated producers. From a producer’s perspective, a major advantage of integrated chicken production is that it facilitates the coordination of chicken raising processes which are subject to intrinsic biological lags. It isn’t possible to speed up the ‘assembly line’ as can be done in automobiles. It is, however, as much a ‘just-in-time’ system as that in automobile production. At the same time, integration gives closer control over product quality and food safety.

Figure 9.2 displays the fresh fruit and vegetable production circuit between the producing countries of Kenya and Zimbabwe and the consumer markets of Europe, particularly the UK. Its focus is more on the distribution and marketing functions of these agro-food production circuits and their coordination and governance. In particular, it sets out the different ways of coordinating transnational production networks discussed in Chapter 5 (Figure 5.18 and associated text). The key point to make about the fruit and vegetable production circuit is that it is driven by the large supermarket chains, rather than by the producers of the crops themselves.

Figures 9.1 and 9.2 both depict conventional agro-food production circuits. However, there are other, ‘alternative’, circuits which involve the production of organic food and/or the involvement of various kinds of non-economic actors,
notably ‘fair trade organizations’. The driving forces underlying the development of some alternative food networks are the increasing concerns with food quality and food safety and concerns for fairer treatment of farmers/growers in developing countries (see later in this chapter). Such networks ‘redistribute value through the network against the logic of bulk commodity production … reconvene “trust” between food producers and consumers … and … rearticulate new forms of
political association and market governance’. Figure 9.3 provides one example of an alternative agro-food production circuit: fair trade coffee.

The kind of food circuit shown in Figure 9.3 is just one of a number of alternatives to the tightly controlled, highly integrated, industrially based agro-food circuits that have become so dominant in recent years. Currently, there is also a growing (re-)emergence of explicitly *territorially based* food production networks.

A key characteristic of the new supply networks is their capacity to re-socialize or re-spatialize food, which comes to be defined by its locale … by drawing upon an image of the farm or the region as a source of ‘quality’, alternative food networks ‘re-localize’ food.

Although these developments need to be kept in perspective – the vast bulk of modern food production and distribution is contained within the big producer- and buyer-dominated networks – they do suggest that we need to adopt a more nuanced position. The agro-food industries seem to be bifurcating into two main sets of processes:

- standardized, specialized production processes responding to economic standards of efficiency and competitiveness
- localized, specialized production processes attempting to trade on the basis of environmental, nutritional or health qualities.
Global shifts in the agro-food industries

In this chapter, our concern is with the high-value segments of agricultural production and trade. We will focus, in this section, on three examples: chicken, fresh fruit and vegetables, and coffee.

Chicken production has become an immensely complex, highly integrated agro-food industry (Figure 9.1). At the global scale it is dominated by three countries, the US, China and Brazil, which together account for almost half the world total (Figure 9.4). Until very recently the US was also the world’s leading exporter
of chickens, but it has been overtaken by Brazil. ‘In 1997, Brazil’s chicken exports were less than a third those of the US. But production has taken off since 2000 – growth averaged 230 per cent the past two years – and today Brazil exports to 127 different countries and controls 36 per cent of the world share.’

Fresh fruit and vegetable production is also heavily concentrated at the global scale (Figure 9.5). China (38 per cent of the world total) is by far the world’s biggest producer (although much of this production is consumed domestically). India is far behind at 9 per cent, followed by the US (4.5 per cent) and Brazil (3.4 per cent). However, the composition and pattern of trade in fruits and vegetables have changed markedly during the past two decades. Export growth rates of traditional products (e.g. oranges, canned pineapples, canned mushrooms, concentrated orange and apple juices) were very low. Non-traditional products grew fastest: ‘Some commodities – mangoes, frozen potatoes, single-strength orange and apple juices, fresh mushrooms, garlic, sweet corn (prepared or preserved), and avocado – achieved, or were close to, double-digit growth rate in their exports.’

The geography of global trade in fruits and vegetables is strongly regionalized. Not only are Europe and North America the leading importers of such products (along with Japan), they are also substantial exporters. Both regions contain a variety of climatic conditions conducive to certain kinds of fruit and vegetable production: the Mediterranean rim in the case of Europe; Mexico and the Caribbean in the case of North America. Figure 9.6 shows the origins of imports
of fruits and vegetables to the world's 30 leading importers. Quite apart from the intra-regional trade flows to the highest-income countries of North America, Europe and Japan, the role of the Southern Hemisphere countries is especially significant. Unlike the banana producing countries, for which this single product accounts for almost 90 per cent of their fresh fruit exports, the Southern Hemisphere countries produce and export an increasing variety of products for consumption in the affluent markets of the Northern Hemisphere.

Figure 9.5 Global production of fruits and vegetables

Source: FAO Statistical Yearbook, 2009: Tables B6, B7
These countries have taken advantage of the seasonal differences to expand their exports, particularly for many temperate-climate fruits ... more than half of the fresh fruits exported by the Southern Hemisphere countries were temperate-climate fruits such as grapes, apples, and, to a much lesser extent, pears. About two-thirds of apples exported by the Southern Hemisphere countries came from Chile and New Zealand, while Chile and Argentina were the dominant suppliers for grapes and pears ...

In addition to fresh fruits, the group of Southern Hemisphere countries is a major supplier for fruit juices, accounting for nearly one-third of the import value for juices purchased by the world’s top 30 importers ... Brazil accounted for nearly three-fourths of the region’s juice exports, while Argentina (shipping mainly apple and grape juices) was the second largest exporter in the region (11 per cent of the exports).17
Finally, Figure 9.7 maps global exports of coffee. As coffee aficionados will know, there are two major types of coffee bean: arabica beans, grown at higher altitudes and more difficult to grow, and robusta beans, grown on low lands in the humid tropics. In general, arabica beans are regarded as being of higher quality though, as always, it is not quite as simple as this. Four countries generate 66 per cent of total coffee exports: Brazil (32 per cent, of which 94 per cent is arabica), Vietnam (18 per cent, all robusta), Colombia (10 per cent, all arabica), and Indonesia (7 per cent, 87 per cent robusta).

The pattern of production and trade in high-value foods, therefore, combines elements of global, regional and local scales. Globally, the emergence of Southern Hemisphere producers, basing their advantage on their seasonal complementarity with the temperate markets of the Northern Hemisphere, generates massive flows of long-distance trade. Regionally, the existence of areas of more exotic production within the major regional markets of North America, Europe and East Asia has led to strong intra-regional trade flows of high-value foods. Locally, the increasing interest in alternative food networks, especially those which focus on local (often organic) production, has created much shorter movements of agro-food products.

**Consumer choices – and consumer resistances**

For most of human history, people have had to struggle to obtain enough food to survive. Only a very tiny proportion of the population could afford to obtain the
more exotic foods from distant places. That is, of course, still the case today for millions of people in the poorest countries and for some people in affluent countries. But as incomes have risen for many through economic growth, and with the associated urbanization of the population, demand for food has changed dramatically. In developed economies, consumers now spend only around one-tenth of their income on food, compared with one-third 50 or 60 years ago. However, food’s unique nature has made it uniquely central to human social life … and therefore a carrier of historically constructed meanings, both intimate and political … These meanings in turn enter into food markets at a variety of levels. Different groups’ and societies’ ideas of food purity and danger, of the ‘proper meal’ and the proper treatment of farmland and livestock, of government’s responsibility to protect producers and consumers from food risks … [mean] that food is never free of the meanings that make it the subject of bread riots, trade wars, and media scares.18

These factors make the relationship between food production and consumption more complex than is often assumed. What we choose to eat has become a far more intricate process: a mix of taste, culture, religion, health concerns, ethical position and lifestyle as well as disposable income. On the one hand, food producers strive to produce and market foods that will attract the largest number of consumers (and enhance profits) whilst, on the other hand, consumers themselves have widely varying ‘food agendas’.

In the affluent consumer markets of North America, Europe and parts of East Asia, it is the changing patterns of demand and consumption, rather than the overall level of food consumption, that are especially important. Increasing affluence stimulates a desire for greater choice in food products. As a result – but also, of course, driven by the marketing strategies of the transnational food producers – the market for food has become highly segmented.

At one level, this is reflected in the huge diversity of products sold through the major supermarkets and, especially, their provision of all-year-round perishable foods from across the globe. It is reflected in the rapid growth of new food products: for example, the chilled convenience food market. It is reflected in the ever-changing dietary fashions of the affluent in their search for the route to beauty and long life. It is reflected, too, in the development of the specialist ‘lifestyle’ drinks markets, for example, the ‘latte revolution’ driven by Starbucks’ colonization of much of the world.19

At the same time, however, there is increasing consumer resistance to many of the food products being sold through the big supermarkets, as well as to the more traditional providers of fast food. In early 2006, for example, McDonalds announced that it was actually going to close a significant number of its outlets in the UK. McDonalds, of course, has long been the focus of much criticism for its allegedly unhealthy products, culminating in the movie Supersize Me. In some countries, though not all, there is widespread opposition to GM foods
and to the use of non-organic production methods. In the case of GM foods, there is considerable difference in consumer attitudes between the US, where GM crops tend to be more acceptable, and Europe, where there is greater resistance. A European Commission public opinion survey in 2001 found that 80 per cent of those surveyed did not want GM food and 95 per cent wanted the right to choose.

There are also pressures to ‘relocalize’ food production: both to rely more on local sources and also to stimulate and protect areas of local production of key products. Such resistances derive from a combination of concern over environmental damage and fears about the safety of foods grown using what are increasingly regarded as suspect or ethically unacceptable methods. For example, ‘fresh’ supermarket food

is predicated on a new nature-defying order where every conceivable fruit and vegetable grown anywhere is available all the time … PGST [permanent global summertime] may look good, but in the name of consumer choice and public health the irregularity and diversity that is part of the natural order has been eliminated, not to benefit consumers but to fit the way our big food retailers like to do business. In essence, this means sourcing vast quantities of easy-to-retail, long-shelf-life standard varieties, grown to rigid size and cosmetic specifications, that can be supplied 365 days a year.

There has been significant recent growth in the ethical consumer movement in the agro-food industries. For example, some 7 million farmers and workers in around 60 developing countries are now covered by the ‘Fairtrade’ charitable scheme, which pays a guaranteed price covering basic costs and a surplus to reinvest in further development. Fairtrade is especially active in such foods as coffee (see Figure 9.3), tea, bananas and chocolate, although the proportion of total world trade in these products covered by Fairtrade agreements remains small: for example, around 5 per cent of the UK banana market. Nevertheless, according to the Fairtrade Foundation, global consumption of Fairtrade products grew by 47 per cent between 2006 and 2007.

Set against these kinds of consumer resistance, we have to recognize that such movements are, at least in part, facilitated by the choices of the affluent consumer. While there is no doubt that demand is growing from consumers for food whose quality and geographical provenance are regarded as being superior to food from the large-scale sources, for most people the overwhelming need is still for enough food to survive. For every ‘enlightened’ consumer pursuing her organic food, or for the lifestyler drinking his designer coffee, there are many for whom such foods are out of reach. For people working long hours or for the elderly, the availability of convenience foods is a major benefit. The fact that such foods may not be especially healthy is another issue. Clearly, therefore, demand for and consumption of food represent an extremely complex set of processes. As we shall see in subsequent sections of this chapter, this has major implications for the changing
transformations of food production, for state regulatory policies, and for the strategies of the transnational food producers.

**Transforming technologies in agro-food production**

**Global cool chains**

Traditionally, food production was a relatively simple process. Of course, technological innovations in crop growing and animal husbandry have been significant throughout human history. For example, without the important agricultural innovations of the eighteenth and nineteenth centuries, the Industrial Revolution simply could not have occurred. Equally, without the developments in transportation and communications discussed in Chapter 4, long-distance movement of agricultural products would not have been possible. These, together with innovations in refrigeration and food-freezing technologies – the development of what have been called 'global cool chains' – transformed the availability of a much wider range of agricultural products over vast geographical distances.25

One of the most widely quoted indicators of globalization is the distance over which the food in our shopping basket or on our dinner table has travelled. For example, a basket of 20 fresh foods bought from major UK retailers was found to have clocked up a total of 100,943 miles.26 On the other hand, long-distance movement of agricultural produce also makes possible the continued existence of many traditional producers through their access to a larger market (including that of Fairtrade production). The carbon footprint per pound of food of the biggest container ships is significantly lower than that of much 'local' sourcing.27 The rapid growth in world trade in fresh foods depends critically on the use of controlled atmosphere (CA) technologies to move fragile and perishable products over long distances without destroying their 'freshness'.28 Technologies of fresh food preservation are, of course, greatly enhanced by the use of air freight to transport low-weight, high-value exotic foods to distant, affluent markets.

**Industrialization of food production and the shift towards biotechnology**

The technologies of agro-food production have been transformed by their *industrialization* and, most recently, through the introduction of *biotechnologies*. Such developments are intimately related to the increasing role of very large agro-food corporations in all aspects of food production. We will look specifically at the corporate dimension in a later section of this chapter. Here, our concern is with the increasing importance of biotechnologies in food production.
The application of industrially produced chemicals to agricultural production (fertilizers to stimulate higher crop yields, pesticides to inhibit disease and insect damage) has been common for many decades. The development of newer varieties of crops has also been a continuing process. The so-called ‘Green Revolution’ of the 1960s and 1970s was the most significant combination of such practices: an attempt to solve the food problems of poor countries through the development of new varieties of basic crops such as wheat, rice and maize, using fertilizers, pesticides and irrigation.

The Green Revolution was, in many ways, a precursor of what has become the most controversial aspect of agro-food production: genetic modification (GM). As before, the objective is to improve plants’ resistance to disease and to herbicides, to increase yields, and to improve nutritional value. This is done by changing basic genetic structures and producing new varieties of seeds. Such GM techniques are immensely complex and costly. They involve massive levels of capital expenditure on a scale that can only be afforded by the big biotechnology and agro-food companies. Not least, they encourage the patenting of what had hitherto been regarded as ‘public’ goods: the seeds needed to produce the next generation of crops. This is the patenting of life itself. Traditionally, a farmer would set aside some seeds from one year for use in the following year. GM seeds, on the other hand, ‘belong’ to the seed company, which produces ‘terminator’ seeds that cannot be reproduced by the user, who has to purchase the next year’s seeds from the seed company.

Whereas the application of biotechnologies is relatively recent, and mainly applied in the early stages of the agro-food production circuit, the use of chemical additives in food products themselves has been common for some time. One of the results of the increasing industrialization of food production was a loss of some of the desirable qualities of taste, texture, colour and so on. To counteract these changes, and to enhance the attractiveness of food products, producers have developed a bewildering variety of food additives: preservatives, antioxidants, emulsifiers, flavourings, colourings. One calculation is that some 4500 different flavouring compounds are available to food manufacturers and that 90 per cent of additives are purely cosmetic.

What about the workers?

The impacts of these technological transformations in how food is produced, and how far and how quickly it can be transported, are immense. In addition to their effect on what people eat – and the potential effects on their health – they also impact greatly on those people who work in agriculture. The proportion of the labour force working on the land has fallen markedly, especially in developed countries. The industrialization of agro-food processes has, in effect, shifted the locus of much of the work from the field to the factory or to the packaging plant. The seasonal rhythms of agricultural work have been displaced
for many by the rhythms of the food processing and packaging assembly lines. To that extent, many workers in the agro-food industries are more like workers in automobile or electronics production, engaged in ‘lean and flexible production’, than farmers.31

Because all governments are heavily involved in regulating their food industries for health and safety reasons (see next section), the working conditions in processing and packaging plants are more tightly monitored than is the case in some other industries (such as clothing). The work itself may be mind-numbingly boring and repetitive but so, too, are many other jobs in today’s society (and not just in manufacturing: think of telephone call centres). Of course, wide variations in working conditions exist, especially between developed and developing countries, despite the ubiquitous involvement of the big supermarket chains in sourcing from such plants.

But not all jobs in food processing and packaging are permanent or full-time. Agro-food is probably the largest user of casual labour of all modern industries. Indeed, these industries depend fundamentally on a huge floating labour force of workers who are employed only when the producer needs them and who are often organized by subcontractors or ‘gangmasters’. Since the supply of such labour invariably exceeds demand, wages are extremely low and working hours very long. The majority of such workers are migrants, with virtually no bargaining power and often very little protection from abuse. The seasonality of agricultural processes creates vast periodic movements of migrant workers within and across borders.32 In the US, the majority of these workers are Hispanic (especially Mexican); in Europe, they come predominantly from Eastern Europe or from North Africa.

An Oxfam report on American agriculture provides graphic details of what the report terms ‘sweatshops in the fields’.

Farmworkers are among the poorest – if not the poorest – laborers in the US … farm labor is also one of the most dangerous jobs in America. At work, farmworkers suffer higher rates of toxic chemical injuries than workers in any other sector of the US economy, with an estimated 300,000 suffering pesticide poisonings each year. They also suffer extremely high rates of workplace accidents …

Farmworkers are much more likely to have temporary jobs … Just 14% of all workers in crop agriculture are employed full time in year-round positions, while fully 83% work on a seasonal basis … 56% of farmworkers in crop agriculture are migrant workers, travelling more than 75 miles to get a job …

Thirty percent of migrant workers (or 17% of all crop workers) are characterized as ‘follow-the-crop’ migrants, moving year-round like those portrayed in John Steinbeck’s The Grapes of Wrath …

Farmworkers in general, and immigrant farmworkers in particular, have low levels of education … Their literacy and communication skills in English are especially limited …
Finally, yet perhaps most significantly, these immigrant workers typically lack work authorization … Given the vulnerabilities of their legal status, US farmworkers tend to face widespread workplace and human rights abuses, and are rarely able to take the risk of challenging abuses when they occur.33

While some of these characteristics of the agro-food workforce are far from new, there is little doubt that they have intensified as the industry’s production circuits have become more tightly controlled by larger and larger producers and buyers.

The role of the state

The state plays an immensely important role in the agro-food industries, which are among the most highly regulated, heavily subsidized, and vigorously protected of all economic activities.

Regulating agro-food industries

A vast array of government agencies and departments operates to oversee various parts of the agro-food industries, for example, the UK Department of Environment, Food and Rural Affairs and the Food Standards Agency; the US Department of Agriculture and its Food and Drug Administration. A primary focus of such regulatory activity is the issue of food safety, a problem greatly exacerbated by the growth of international trade in food. Before the 1970s, as much as 90 per cent of world food production was consumed in the country in which it was produced.34 That situation has changed dramatically. As a result, national food regulatory measures have become increasingly embedded in international codes, such as the Codex Alimentarius, set within the Food and Agricultural Organization and the World Health Organization. This consists of ‘over 200 standards, forty codes and guidelines for food production and processing, maximum levels for about 500 food additives, and 2700 maximum-residue limits for pesticide residues in foods and food crops’.35

A striking feature of regulatory policies in these industries is the extent to which they are deeply intertwined with the strategies of the major food producers.

The biggest funder of the establishment of the Codex Alimentarius Commission was not the US state but the US food industry … Indeed, the Codex has become one of the more industry-dominated international organizations.36

In other words, there is a substantial amount of ‘private’ regulation in the agro-food industries sanctioned by national governments. A major problem facing food safety regulators is the continuing proliferation of new products that cross the boundaries between food and medicine: the development of
so-called functional foods or ‘nutriceuticals’, which claim to improve various aspects of health.\footnote{37}

Even within the EU, there are national variations in regulatory practices. This is seen most clearly in the context of the food safety scares that have occurred from time to time and also in the GM food controversy. Such cases invariably create conflict between the state within which the disease originates and its export markets, leading to trade boycotts and disputes over the efficacy of safety measures. The case of GM food is potentially the biggest source of difference between states and one that spills over into trade disputes, especially between the US and the EU. The US position is that GM foods are not only safe but also vital to increasing food supply in poor countries. Driven by consumer resistance (see earlier), the EU has taken a more restrictive position. Although it lifted its six-year moratorium on GM food in 2004 and allowed limited approvals of GM products, several EU states continue to ban them.

There is also a proliferation of nationally specific regulations governing the extent to which foreign food retailers are permitted to operate. For example, it has been quite common for countries to restrict entry of foreign food retailers. Although this practice has declined in recent years, the rules of operation in national retail markets continue to differ substantially. The US has the most lenient regulatory system towards retailing. The Japanese retail market is far more heavily regulated, although Japan has revised the Large-Scale Retail Store Law, which had been a major obstacle to the growth of large retail stores. Certainly the law had discouraged major foreign retailers from trying to enter the Japanese market. India also operates a highly restrictive policy, although it has begun to relax some restrictions on the entry of foreign retailers. In Eastern Europe, although retailing has been opened up, there is considerable opposition to the spread of foreign-owned supermarkets.

**Subsidizing and protecting agro-food industries: the major focus of trade conflict**

For reasons that lie deeply embedded in national emotions, as well as in the need to guarantee a secure food supply for its citizens, most countries have adopted policies to nurture, sustain and, where felt necessary, protect their agro-food industries from external competition. Such policies include the trade measures shown in Figure 6.5, as well as direct financial support (subsidies) for domestic farmers. Figure 9.8 shows that agricultural subsidies are heavily concentrated in particular countries.

More than 90 per cent of the dollar value of agricultural support in OECD countries is provided by the European Union (which alone provides about half); Japan; the US; and the Republic of Korea.\footnote{38}
For example, both Japan and Korea have adopted highly protectionist policies towards their rice industries, which have deep cultural meanings as well as dietary significance. In Europe the French, in particular, regard the rural economy as sacrosanct. In the US farming remains a national obsession, a reflection of the country’s desire for food security as well as the emotional connotations of the development of the national space in the nineteenth century. Subsidies to US farmers began in the 1930s under the New Deal programme.

The EU’s Common Agricultural Policy (CAP) has long absorbed the largest single share of the EU’s total budget and has, as a result, become a source of dissatisfaction for several member states. The CAP has become increasingly controversial, not only within the EU itself but also in the context of the WTO trade negotiations. The CAP was reformed most recently in 2003, when the level of subsidy to farmers was separated from production, a practice which had led to notorious cases of over-production in the past. Now, subsidy is linked to ‘compliance with environmental, food safety, and animal welfare standards’ and part of the process of ‘transforming the CAP from a sectoral policy of farm community support to an integrated policy for rural development’. In some member states (Austria, Denmark, Finland, the Netherlands, Sweden and the UK) further radical reform of the CAP is regarded as essential.

The issue of agricultural subsidies has become possibly the biggest bone of contention in the current WTO negotiations, especially in the context of the

Figure 9.8 Agricultural subsidies

Source: WTO data
Doha ‘development round’. It is often pointed out, for example, that the average subsidy per cow in the EU is more than the $2 per day on which half the world’s population has to live, whilst US farm subsidies allow ‘farmers to export wheat at 28 per cent less than it costs to produce, corn at 10 per cent less and rice at more than a quarter less than cost price’. We will discuss the WTO negotiations more fully in Chapter 17. Financial subsidization of some, or all, agricultural production continues to be common in many countries, although there has been some movement within OECD countries:

The average support to agricultural producers fell from 37 per cent of the gross value of farm receipts in 1986–88 (the beginning of the Uruguay Round) to 30 per cent in 2003–05 … [however] while the 7 percentage point decline in support is progress, the amount of support increased over the same period from $242 billion a year to $273 billion.

But, despite the general reduction in tariffs and subsidies, many agricultural products remain heavily protected, to the detriment, especially, of poor countries.

A new phenomenon: state land grabs

Fears over future food and fuel shortages have led in recent years to the emergence of a new phenomenon: ‘land grabbing’, that is state-supported actions to acquire agricultural land in foreign countries. A 2009 report estimated that

an area half the size of Europe’s farmland … [was] targeted in the last six months … at least 30m hectares is being acquired to grow food for countries such as China and the Gulf states who cannot produce enough for their populations … The land grab is being blamed on wealthy countries with concerns about food security.

Some of the largest deals include South Korea’s acquisition of 700,000 ha in Sudan, and Saudi Arabia’s purchase of 500,000 ha in Tanzania.

India has lent money to 80 companies to buy 350,000 ha in Africa. At least six countries are known to have bought large landholdings in Sudan, one of the least food-secure countries in the world.

Other countries that have acquired land in the last year include the Gulf states, Sweden, China and Libya. Those targeted include not only fertile countries such as Brazil, Russia and Ukraine, but also poor countries like Cameroon, Ethiopia, Madagascar and Zambia.

Corporate strategies in the agro-food industries

The exploitation of agricultural resources across the world by companies based in developed countries has a very long history.
Early examples of TNC involvement in agricultural production include FDI in the nineteenth and twentieth centuries by companies based in Japan, Europe and the US, primarily to produce cash and food crops such as cotton, rubber, sugar and others ... The history of foreign investment in agriculture is actually even older, and goes back to the early colonial era (from the sixteenth century onwards), when foreign expansion by European powers to the developing countries of today was largely motivated by the search for natural resources, combined with cheap labour by indentured workers or slaves.44

Concentration and consolidation

The massive transformation of the agro-food industries that has occurred during the past few decades is inexorably bound up with the increasing dominance of very large transnational firms. This is apparent at all stages in the production circuit, from seeds through growing, processing and retailing. What was historically a highly fragmented set of industries – although some parts were always more concentrated than others – has become one in which a relatively small number of giant, transnational firms shapes what food is produced, how it is produced, who produces it, and how it is marketed and distributed to final consumers.

Figure 9.9 lists the 10 leading companies in the world in four agro-food industries: seeds, pesticides, food and beverage manufacture, food retailing. Global seed production is dominated by European (five) and US (three) firms. In fact, US dominance has increased following Monsanto’s acquisition of Seminis in 2005 to

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<th>Top 10 seed companies</th>
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<td>1. Monsanto</td>
<td>US 4,964</td>
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<td>2. DuPont</td>
<td>US 3,300</td>
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<td>3. Syngenta</td>
<td>Switzerland 2,018</td>
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<td>4. Groupe Limagrain</td>
<td>France 1,226</td>
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<td>5. Land O’Lakes</td>
<td>US 917</td>
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<td>6. KWS AG</td>
<td>Germany 702</td>
</tr>
<tr>
<td>7. Bayer Crop Science</td>
<td>Germany 524</td>
</tr>
<tr>
<td>8. Sakata</td>
<td>Japan 396</td>
</tr>
<tr>
<td>9. DLF-Trifolium</td>
<td>Denmark 391</td>
</tr>
<tr>
<td>10. Taikii</td>
<td>Japan 347</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Top 10 food &amp; beverage companies</th>
<th>$m sales 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Nestlé</td>
<td>Switzerland 83,600</td>
</tr>
<tr>
<td>2. Pepsi Co.</td>
<td>US 39,474</td>
</tr>
<tr>
<td>3. Kraft Foods</td>
<td>US 37,241</td>
</tr>
<tr>
<td>4. Coca-Cola</td>
<td>US 28,857</td>
</tr>
<tr>
<td>5. Unilever</td>
<td>UK/Netherlands 26,985</td>
</tr>
<tr>
<td>6. Tyson Foods</td>
<td>US 26,900</td>
</tr>
<tr>
<td>7. Cargill</td>
<td>US 26,500</td>
</tr>
<tr>
<td>8. Mars</td>
<td>US 25,000</td>
</tr>
<tr>
<td>9. ADM Co.</td>
<td>US 24,219</td>
</tr>
<tr>
<td>10. Danone</td>
<td>France 19,975</td>
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<table>
<thead>
<tr>
<th>Top 10 pesticide companies</th>
<th>$m sales 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bayer</td>
<td>Germany 7,458</td>
</tr>
<tr>
<td>2. Syngenta</td>
<td>Switzerland 7,285</td>
</tr>
<tr>
<td>3. BASF</td>
<td>Germany 4,297</td>
</tr>
<tr>
<td>4. Dow AgroSciences</td>
<td>US 3,779</td>
</tr>
<tr>
<td>5. Monsanto</td>
<td>US 3,599</td>
</tr>
<tr>
<td>6. DuPont</td>
<td>US 2,369</td>
</tr>
<tr>
<td>7. Makhteshim Agan</td>
<td>Israel 1,895</td>
</tr>
<tr>
<td>8. Nufarm</td>
<td>Australia 1,470</td>
</tr>
<tr>
<td>9. Sumitomo Chemical</td>
<td>Japan 1,209</td>
</tr>
<tr>
<td>10. Arysta Lifescience</td>
<td>Japan 1,035</td>
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<table>
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<th>Top 10 food retailers</th>
<th>$m sales 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Wal-Mart</td>
<td>US 180,621</td>
</tr>
<tr>
<td>2. Carrefour</td>
<td>France 104,151</td>
</tr>
<tr>
<td>3. Tesco</td>
<td>UK 72,970</td>
</tr>
<tr>
<td>4. Schwarz Group</td>
<td>Germany 58,753</td>
</tr>
<tr>
<td>5. Aldi</td>
<td>Germany 55,966</td>
</tr>
<tr>
<td>6. Kroger</td>
<td>US 52,082</td>
</tr>
<tr>
<td>7. Ahold</td>
<td>UK 50,556</td>
</tr>
<tr>
<td>8. Rewe Group</td>
<td>Germany 49,651</td>
</tr>
<tr>
<td>9. Metro Group</td>
<td>Germany 49,483</td>
</tr>
<tr>
<td>10. Edeka</td>
<td>Germany 45,397</td>
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Figure 9.9 Dominant firms in the global agro-food industries

Source: based on data in ETC Group, 2008
create the world’s largest seed company. US firms also dominate food and beverage production, although the world’s biggest food manufacturer, Nestlé, comes from one of the smallest European countries, Switzerland, while the fifth largest is the UK/Netherlands company Unilever. In global food retailing, on the other hand, eight of the top 10 are European, and only two are American, including by far the largest: Wal-Mart.

According to one agro-food industry observer:45

- Two-thirds of the world seed market is controlled by the leading 10 companies.
- Almost 90 per cent of the world pesticide market is controlled by the leading 10 firms.
- Twenty-six per cent of the world packaged food market is controlled by the leading 10 firms.
- The leading 100 global food retailers account for 35 per cent of total world grocery sales. The top three produce half of the total revenues of the top 10.

Most of this increased concentration in the agro-food industries is the result of merger and acquisition. Indeed, these have been among the most takeover-intensive industries in recent years, as firms have striven not only to acquire a wider portfolio of brands (as well as to drive out competition for their own existing brands) but also to extend their reach into new geographical markets. Much of this activity has been driven by the increased financialization of the leading firms: ‘the prioritization of objectives to boost “shareholder value” in the strategic management of large corporations’.46 Virtually all the leading food companies have followed a similar trajectory varying, of course, according to their specific company history.

Among the more important examples in recent years was the US tobacco company Philip Morris, which transformed itself through a whole series of acquisitions. In 1985 Philip Morris acquired General Foods; in 1988 it acquired Kraft Foods; in 1989 these were combined to form Kraft General Foods, the largest food company in the US; in 2000 it acquired Nabisco Holdings of the US and integrated Nabisco brands into Kraft Foods worldwide; in 2007 the entire Kraft Foods business was sold and became the world’s third largest food company; and in 2010 Kraft controversially acquired the major UK company Cadbury.

Among the diversified food companies, Unilever acquired Brooke Bond in 1984 to make it the world’s leading tea company; in 2000 the company acquired the US food company Bestfoods, as well as Ben & Jerry’s ice cream; in 2007 Unilever acquired the Buavita vitality drinks brand in Indonesia, and Inmarko, the leading ice cream business in Russia. The more narrowly specialized food companies have also grown through acquisition as well as through organic growth (no pun intended). Tyson Foods, for example, the world’s biggest poultry company, began its ‘expand or expire’ strategy in 1963 by acquiring the Garrett Poultry Company of Arkansas and then made 19 further acquisitions between 1966 and
1989. In 1995 Tyson purchased Cargill’s US broiler operations and has subsequently made acquisitions in other food companies outside poultry. By 2001, Tyson was ‘the world’s largest processor and marketer of not only chicken but also red meat with the acquisition of beef and pork powerhouse, IBP, Inc.’

Acquisition and merger have also been important factors in the growth of the major transnational food retailers. One of the biggest deals was Wal-Mart’s acquisition of the British supermarket chain Asda for almost $11 billion, and its acquisition of the German chain Wertkauf and the Japanese company Seiyu. Because of national regulatory restrictions, the major food retailers have often had to enter foreign markets through joint ventures with local partners. Examples include Tesco’s alliance with Samsung in Korea.

**Strategies of combining ‘global’ brands with ‘local’ products**

The agro-food industries are dominated by the drive to introduce, develop and sustain branded products. It is through branding that firms strive to convince consumers that there is something special (in terms of quality, reliability, safety and so on) about the foods they are purchasing. The degree of product differentiation through branding is probably greater in the agro-food industries than in most other industries. Each of the leading agro-food companies has a vast portfolio of brands serving different market segments. Nestlé, for example, has around 8000 brands in up to 20,000 variants. Such brand portfolios are excessive; most have evolved through acquisition and merger, as we have seen. One important strategy being pursued by all the leading food companies, therefore, is to rationalize their brand portfolio, usually by selling some of the brands to other firms. By 2001, for example, Unilever had reduced its number of brands from 1600 to 900, and the process continues.

Obviously, the aim has to be to sell each brand to the largest number of consumers. The ideal, from a producer viewpoint, would be brands that sell everywhere without any need for modification. But agro-food markets are not like that, as we have seen. A major problem for the big agro-food producers, therefore, is in creating global brands in circumstances where much food consumption is still very strongly influenced by local tastes and preferences. A distinction must, of course, be made between the manufacture of a product for a global market (based on large-scale production plants serving geographically extensive markets) and the way that product is actually sold to the local consumer. A product may be sold overtly as a global brand (like Coke or Pepsi) but it may also be sold under a more local label and packaging, even if the product itself is the same everywhere.

While some food companies do market their products as global brands, others are less inclined to do so. Nestlé, for example, dismisses the idea of ‘global brands’:
There is a trade-off between efficiency and effectiveness in global brands ... Operational efficiency comes from our strategic umbrella brands. But we believe there is no such thing as a global consumer, especially in a sector as psychologically and culturally loaded as food. As a result, Nestlé retains its brand strength by using … very strong local brands.49

The increased consumer interest in food health and safety has important implications for food producers’ strategies. Capitalizing on the enhanced interest in local and organic foods becomes increasingly important. All the big food companies have to deal with these market changes. They are doing so in various ways: for example, by acquiring local companies and by retaining their brand identities rather than rebranding them with the new corporate identity. Nestlé, for example, announced its intention to ‘accelerate the evolution of Nestlé from a respected, trustworthy Food and Beverage Company to a respected, trustworthy Food, Nutrition, Health and Wellness Company’.50 Note the very significant change of emphasis. This shift in priority towards ‘healthy’ products has become virtually universal among the large food companies. Unilever boasts about how it is ‘bringing Vitality to life’ and has launched the ‘Unilever Health Institute – a centre of excellence in nutrition, health and vitality’.51 Likewise, Kraft Foods has a ‘health and wellness strategy’.52

Changes in organizational and geographical architectures

Traditionally, the major food manufacturers expanded overseas by setting up (or acquiring) operations in each of their major geographical markets. The existence of highly protected domestic food markets, together with the idiosyncracies of local consumer tastes, made each national market distinctive. As a result, the leading transnational food producers established organizational structures that were strongly multinational, with all the characteristics shown in Figure 5.9.53 The agro-food industries, therefore, are the clearest example of the ‘global–local tension’ discussed in Chapter 5. Because the traditional organizational-geographical structures are less and less effective, all the major food producers are engaged in large-scale reorganization programmes. Two examples help to illustrate these processes.

Nestlé currently has operations in 80 countries and employs 250,000. In announcing its intention to transform itself into a ‘Food, Nutrition, Health and Wellness Company’, the company recognized that this has implications that go beyond products and brands.

Nestlé is changing from a decentralized multinational company to a global, and ultimately, a global multifocal company.54

In fact, Nestlé has been involved in substantial geographical reorganization for some time, as its actions within South East Asia reveal.55 With the increasing
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The liberalization of agro-food trade within ASEAN, Nestlé progressively rationalized its multidomestic operations there (in the early 1990s it had more than 40 factories in the region). Under the ‘centres of excellence’ programme, the company established such centres for production of breakfast cereals in the Philippines, chocolate and confectionery in Malaysia, non-dairy creamer in Thailand, soya sauce in Singapore, and instant coffee in Indonesia.

Such developments formed part of the company’s broader reorganization programme at the global scale.

In the 1990s, the company dramatically expanded its intra-firm trade of final products … Because many Nestlé products sell under globally recognised brand names and are manufactured according to globally consistent recipes, there is a certain footlooseness in the intra-firm trade patterns of the company.56

Unilever, like Nestlé, has long operated a decentralized multinational strategy but it, too, has made strenuous efforts to create a more efficient and responsive global structure. In the late 1990s Unilever operated around 300 food factories, with a presence in virtually every country in the world. The acquisition of Bestfoods brought in a further 70 factories in 60 countries. In its ‘Path to Growth’ strategy of the late 1990s and in the subsequent ‘One Unilever’ programme, Unilever has drastically rationalized and reorganized its entire production and supply chain activities. Its two major divisions, Food and Home and Personal Care Products, have been combined into one category. The focus on a much smaller number of brands (see above) has involved closing a large number of plants in favour of concentrating production on around 150 key sites, together with a further 200 sites for manufacturing local market-leading or nationally profitable products.

These kinds of organizational and geographical restructuring are typical of all the major multibrand food producers, although with variations in detail from one company to another. They involve a very strong macro-regional dimension to the organization of the production network (as in Figure 5.14c). Recent research on European food production networks indicates that

global firms had launched a restructuring process aimed at developing large macro-regional factories specialized by product lines and serving the entire region, with the objective of generating scale economies and productivity increases. These macro-regional factories had been progressively replacing traditional national factories through continuous restructuring and cost cutting programmes, involving plant closures and lay-offs at the national level … [for example] in the early 2000s, Nestlé launched its own version of a macro-regional production system in ice cream, distinguishing between ‘global factories’ that would perform initial production stages for global or macro-regional markets, and ‘finishing factories’ in which products would be adapted to local markets … The adoption of global strategies in marketing and production entailed a centralization of support functions such as sourcing, aimed at controlling and coordinating the activity of local buyers.57
‘Big Food’ and ‘Big Retail’: two sides of the same coin

These developments in the strategies of the major transnational food producers have to be seen within the context of the retailing systems through which their products are sold. One of the most significant developments in the agro-food industries, in fact, has been the evolving, symbiotic relationship between the big food producers and the big supermarket chains.

‘Big Food’ and ‘Big Retail’ are really two sides of the same coin. Big global food manufacturers need big supermarket chains to get their products on to the shelves, and our big supermarkets need big food processors … Mass-produced food that can be churned out over and over again in vast, uniform quantities, made by a handful of big manufacturers who jump to the big retailers’ tune, processed food lends itself to supermarket retailing: it gives them the ability to put a standard, regular product into every store nationwide, a product that does not require any specialist handling … Industrial food lends itself to the supermarkets’ heavily centralised, highly mechanical distribution systems."58

This is an arena of continuous power struggles in which power lies increasingly with the big transnational food retailers. And there is no doubt that the biggest food retailers have become increasingly transnational after being essentially domestically oriented for most of their histories.59 However, they vary considerably in the extent of their transnationalization (Figures 9.10, 9.11). The biggest food retailers are not invariably the most transnational, as the case of Wal-Mart shows. The world’s biggest food retailer is ranked ninth in terms of international sales as a share of its total sales. Figure 9.11 maps the distribution of stores of three of the leading transnational food retailers. There are some significant differences between them in the specific geography of their overseas activities but all share a common characteristic: a very strong focus on their home region.

Wal-Mart has 54 per cent of its stores in the US and 73 per cent in North America (when Canada and Mexico are included). However, Wal-Mart continues to pursue an aggressive transnationalization strategy. At present, its overseas stores are concentrated in East Asia (China, Japan – although it disposed of its Korean stores), Latin America (Brazil, Chile, Argentina) and Central America, where it acquired a substantial equity stake in the region’s largest retailer from Ahold. In contrast, Wal-Mart’s only base in Europe at the moment is in the UK. Its attempts to establish a presence in Germany failed, largely because of its inability to understand the fundamental differences between the German and US retail food markets. However, Wal-Mart has plans to expand aggressively into Eastern Europe and especially Russia.

The French company Carrefour has 54 per cent of its stores in its home market and 91 per cent in Europe. Elsewhere, it has a significant presence in Latin America (primarily in Argentina and Brazil) and in East Asia. However, Carrefour
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has a policy of getting out of countries in which it cannot become one of the top three retailers. It withdrew from Japan and Mexico, and sold its stores in the Czech Republic and Slovakia to Tesco. At the same time, it has bought Tesco’s Taiwan operations. Significantly, Carrefour has no stores in North America, having failed to transfer its hypermarket model to the US.

The UK retailer Tesco has grown extremely rapidly in recent years. It now totally dominates the UK grocery market, where almost 60 per cent of its stores are located. This makes it, like Wal-Mart in the US, a target for strong opposition from different interest groups. Tesco is pursuing a very aggressive – but geographically focused – transnationalization strategy, based on expansion in East Asia (22 per cent of its stores) and Eastern Europe (16 per cent). Interestingly, Tesco has no stores in Western Europe, apart from Ireland. Its recent buying and selling deals with Carrefour are part of this strategy, strengthening Tesco’s position in Eastern Europe. In East Asia, Tesco’s major store concentrations are in Thailand, Japan, China and Korea (where it initially entered through a joint venture with Samsung). Having stayed out of the US, Tesco has recently set up a chain of convenience stores – known as Fresh and Easy – initially on the West Coast. It also planned to enter the highly protected Indian market through collaboration with a local enterprise, but this has stalled.

Overall, therefore, there has been very considerable growth in the transnational operations of some of the leading retail chains. But such expansion has

Figure 9.10 Variations in the transnational scope of leading food retailers

Source: based on material supplied by Neil Coe

http://example.com/image.png
Figure 9.11 The global geographies of leading transnational food retailers

Source: company reports
not been problem-free, as the sell-offs listed above demonstrate. The use of local partners within a joint venture often helps to avoid the problems of misunderstanding local market conditions. But even joint ventures are not without their difficulties, especially if the foreign partner fails to learn from the knowledge embedded in the local partner. It is also the case that, while the strength of most of the leading retailers is based on their high levels of profitability in their home market, their returns on international operations are often far lower.

So, the transnationalization of food retailing is far from being a straightforward or unproblematic process. Competing head-to-head with local firms is particularly difficult in this sector. A major problem is that of identity. Because food retailing has traditionally been very much a domestic activity, there is little knowledge of foreign retail store brands (as opposed to product brands). For many customers outside the US, for example, Wal-Mart is a totally unknown quantity. The same applies to non-French residents’ knowledge of Carrefour, or non-UK residents’ awareness of Tesco. Yet building up a respected and trusted brand identity takes a long time. Meanwhile, local competition remains, in most cases, a very serious problem for transnational food retailers.

Geographical expansion of the store network is one dimension of food retailers’ strategies. A second dimension is from whom, and from where, its products are sourced. The big retail chains have vastly increased the geographical extensiveness of their sourcing systems as well as exerting increasing power and influence over their suppliers. As in the case of clothing (Chapter 10), the major retailers have come to dominate their supply networks, forcing suppliers to meet their increasingly stringent demands on price, delivery and quality. There is a great deal of criticism of the treatment of suppliers by the big supermarkets, although suppliers are often afraid to object out of fear of losing their contracts. An investigation of the accounts of transnational food retailers claimed that they gain huge financial benefits simply by delaying payments to their suppliers:

stock is turned into cash at the check-out counters long before suppliers have to be paid … In effect, suppliers have acted as surrogate bankers … [however] the burden is not shared equally … the most powerful manufacturers are able to shunt the burden of increased trade debt down the supply chain … life is very much tougher for smaller suppliers who do not have the luxury of their burden down the line.62

It is also increasingly common practice for the big supermarket chains to ask the major food producers to pay for ‘preferred status’.63

As the big food retailers have increased their direct presence in foreign countries (especially in the emerging market economies) they have also drastically changed the geography and organization of the sourcing networks, both for their local stores and for their entire network.64 Typically, the degree of centralization
of procurement has greatly increased. When a transnational retailer establishes operations in a specific country, one of its first actions is to replace ‘a per store procurement system with the distribution centre (DC) model used in established markets. Each DC may have responsibility for a particular range of products or a particular territory.’

The second aspect of the changing procurement practices of transnational retailers is the changing balance between global and local sourcing.

On the one hand, transnational retailers have increased levels of global sourcing for their home markets ... On the other hand ... there are the supply chain impacts that result from the retailers establishing store operations within the various markets ... The foreign subsidiaries of retailers such as Tesco, Ahold, and Carrefour commonly source over 90% of products from within the country ... contra accounts of the continuing rise of global sourcing, local sourcing may actually increase over time as the supply base develops and retailers therefore import fewer products.

However, the recent strategic shift of Wal-Mart towards a more global sourcing system reflects what may become an increasingly common practice.

Wal-Mart intends a drive ... to cut billions of dollars from its supply chain by combining its store purchasing across national frontiers in a fresh stage of the globalization of its business ... It is ... shifting to direct purchasing of its fresh fruit and vegetables on a global basis, rather than working through supplier companies.

NOTES

1 Kiple (2007).
5 Blythman (2004: Chapter 11).
7 ETC Group (2008: 5).
8 In addition to the cases discussed here, see Neilson and Pritchard’s (2009) analysis of the tea and coffee chains in South India.
10 Whatmore et al. (2003: 389).
11 Ponte (2002) examines the conventional coffee production circuit at a global scale.
15 This section draws heavily on Huang (2004).
16 Huang (2004: 3).
17 Huang (2004: 7–8, 10, 11).
19 See Ponte (2002).
20 Munro and Schurman (2009).
23 See Blowfield (1999), Hughes et al. (2008), Leclaire (2002).
24 The Guardian (8 March 2006).
26 The Guardian (10 May 2003).
27 Murray (2007).
33 Oxfam (2004: 2–3, 7, 8).
34 Grigg (1993: 236).
40 US Institute for Agriculture and Trade Policy, quoted in The Observer (3 July 2005).
45 ETC Group (2008).
48 Financial Times (22 February 2005).
49 Nestlé CEO, quoted in the Financial Times (22 February 2005).
50 Nestlé company website: www.nestle.com, emphasis added.
51 Unilever company website: www.unilever.com/aboutus/ourhistory.
53 For cases in the agro-food industries, see Pritchard (2000a; 2000b; 2000c).
57 Palpacuer and Tozanli (2008: 82–3).
59 Coe and Wrigley (2009), Wrigley and Lowe (2007).
60 The Economist (16 April 2005).
62 Financial Times (7 December 2005).
63 Financial Times (30 March 2006).
67 Financial Times (4 January 2010).