

## Chapter 2

# ‘Big Food’—The Industrial Food System

For many consumers, the industrial food system must appear as a bountiful enigma. Increasingly, food is available 24 h a day, 7 days a week. Gone are the days in the 1970s when Australian supermarkets were only open on Saturdays until 12 noon. Shelves are restocked nightly, and consumers are lured with attractive end-of-aisle displays, encouraging persuasive discretionary purchases. Celebratory foods such as traditional hot cross buns make an appearance in supermarkets in late January, months before Easter. Food production is neither bound by climatic nor seasonal rhythms; indeed, it appears as if to defy nature. It is possible to buy south-east Asian tropical fruit and Queensland strawberries from a supermarket in the depths of a Melbourne winter. Storms, cyclones and other natural weather events may wipe out a staple crop such as bananas in Queensland, but this poses little difficulty. Under the fluorescent lights of the fruit and vegetable section, local supermarket shelves are filled with bananas produced in New South Wales. The disconnect between the reality of the natural world and the supermarket offerings results in consumers being ‘divorced’ from the food supply.

The food retail market has expanded beyond supermarkets and is omnipresent. Food and groceries are now available in petrol stations, convenience stores, vending machines and online. A weeks’ worth of groceries can be ordered from a supermarket website on your iPad and delivered to your home. Food is a highly profitable global commodity; from the way it is produced, manufactured and transported to how it is sold to consumers, it is all about maximising profit and minimising input. Food is big business; indeed, in his essay on food democracy and the future of American values, Hamilton (2004) uses the term ‘Big Food’ to describe the businesses and institutions that dominate the food sector. Hamilton’s notion of ‘Big Food’ encompasses one where consumers are not encouraged to ask questions; rather, it is a system ‘based on faith, trust, reassurance and unfortunately ignorance’ (Hamilton 2004). Forget nostalgic images about the food system being about the small local farmer with a herd of milking cows, or even regional cooperatives of

successful dairy farmers. The current industrial food system is dominated by 'a handful transnational corporations' (Lang and Heasman 2004) that control all aspects of food. These aspects include advising farmers what varieties and size to grow, to driving produce prices down for suppliers, to convincing consumers to buy more profitable processed 'home-style' ready meals to loyalty schemes designed to keep customers with tailored special offers based on previous preferences.

This chapter provides a brief overview of some of the key characteristics of 'Big Food' in Australian context and how these may impact on public health nutrition issues. For further reading, there are key critics both internationally (Lang, Heasman, Nestle, Shiva and Patel) and in Australia (Burch, Lawrence and Dixon) who have written comprehensively about the operations, power and influence of 'Big Food'.

## 2.1 What Is 'Big Food' in Australia?

Major supermarket chains (MSCs) are the dominant food retailers in the industrial food system in Australia. The duopoly of Coles and Woolworths, known as the 'Big Two', along with the German retailer ALDI and IGA supermarkets (Independent Grocers Australia), are the main industry players, with the latter being supplied by the wholesaler, Metcash. Australia has one of the most concentrated grocery markets in the world with the 'Big Two' dominating the retail food landscape. They, along with Metcash, hold a combined market share of approximately 70–80 % (Australian Competition and Consumer Commission 2008) and up from 30 % in 1975 (Lang and Heasman 2004). This percentage of market share has not changed despite the entry of ALDI into the market 8 years ago (Burch et al. 2013).

Not surprisingly, both these MSCs have reported phenomenal profits. The Woolworths Annual Report of 2013, boasts a net profit after tax of \$2.26 billion, up to 24.4 % (Woolworths Limited 2013). Similarly, Wesfarmers which owns Coles also reported a similar net profit after tax of \$2.26 billion, up to 6.3 % from 2012 (Wesfarmers Limited 2013). The size of these profits is typical of MSCs internationally, for example Tesco's one of the world's largest retailers in the UK reported after tax profits of £2.27 billion. In 2012, America's Wal-Mart ranked third on the Fortune Global 500 listing of the world's most profitable companies with a profit of \$15.6 billion (CNN Money 2012).

## 2.2 'Think Big'

Global food production is about economies of scale and maximising profits, with a focus on agricultural production on a massive scale. There is a declining trend in the number of farm businesses, with those remaining getting bigger and farming

more intensively. In 1969, there were almost 200,000 farm businesses in Australia and only 134,000 in 2010. Additionally, the average farm size grew from 2,500 ha in 1969 to 3,400 ha in 2004–2005 (Fyfe and Millar 2012). Large-scale agriculture means that the food produced is very cheap and can be value added and converted into more profitable foods. For example, a relatively low-cost raw ingredient such as potatoes can be manufactured into potato chips which are shelf stable, highly profitable, palatable, durable and ready to consume. These types of foods have been referred to as ultra-processed foods and are made from processed substances extracted or refined from whole foods—e.g. oils, hydrogenated oils and fats, flours and starches, variants of sugar, and cheap parts or remnants of animal foods—with little or no whole foods. Products include burgers, frozen pizza and pasta dishes, nuggets and sticks, crisps, biscuits, confectionery, cereal bars, carbonated and other sugared drinks, and various snack products (Moodie et al. 2013). Ludwig (2011) postulates that ‘the variety of ultra-processed foods is a result of extreme chemical and mechanical manipulation of just three plant species—corn, wheat and soy—and animals fed these commodities, representing a transformation from species diversity to product diversity...’

## 2.3 Beyond Food Retailing

The supermarket oligopoly has expanded its traditional role beyond food distribution to encompass food *production*. About 90 % of fresh produce now comes direct from a diminishing number of growers who operate under long-term agreements to supply supermarkets (Richards et al. 2012). Coles and Woolworths are in a position to only deal with the larger suppliers who can deliver food in bulk to their specific size and quality specifications. Small producers cannot compete and are squeezed out of the market.

Furthermore, MSCs have consolidated and expanded their markets and business operations to encompass diverse retail interests, beyond food. Woolworths owns and operates liquor stores (Dan Murphy’s, Beer, Wine & Spirits; known as ‘BWS’ stores and Cellarmasters brands), petrol stations, hotels, home improvement and variety stores (Home Hardware, Thrifty Link and Big W) (Woolworths Limited 2013). Coles has expanded to include clothing (Kmart and Target stores), hardware (Bunnings) and stationary supplies (Officeworks) as well as financial services such as insurance and credit cards. Parent company Wesfarmers owns interests in chemicals, energy (coal), fertilisers and industrial safety (Wesfarmers Limited 2013).

Table 2.1 summarises the extent of Australian supermarket retail expansion.

**Table 2.1** Summary of the retail interests of major supermarkets in Australia

Woolworths	Wesfarmers	Metcash
<i>Supermarkets</i>		
Woolworths, Safeway Thomas Dux and others in New Zealand	Coles, BI-LO	IGA, Supa IGA, Foodland, Franklins
<i>Liquor stores</i>		
Dan Murphy's, Beer Wine and Spirits (BWS), Woolworths, Safeway Liquor, plus 316 hotels with 11,584 poker machines	1st Choice, Liquorland, Vintage Cellars plus 96 hotels and 3,000+ poker machines	Cellarbrations, Bottle-O, IGA Liquor, Thirsty Camel, Harbottle on premise Distributes to 15,000+ liquor retailers yet owns none itself
<i>Fuel and convenience stores</i>		
Caltex Woolworths/Safeway	Coles Express (with Shell)	IGA X-press, Lucky 7
<i>Department stores</i>		
Big W	Target, K-mart	
<i>Other retail stores</i>		
Masters, Home Hardware, Thrifty Link, Dick Smith	Bunnings, Officeworks, Harris Technology	Mitre 10, True Value, Autobarn (75 % owned)
<i>Plus...</i>		
75 % of Australian Leisure and Hospitality Group, 67 % of Danks. Operations in New Zealand. Woolworths telecommunications—Mobile phone plans, digital roaming, photographic/digital print services, banking/credit cards, insurance (home, car, travel, life, pet)	Operations in coal mining, energy, insurance, chemicals and fertilisers	Distributor and brand owner. Stores are independently owns. Also distributes to Foodworks, 7-Eleven and BP

Adapted from: <http://www.ethical.org.au/get-informed/issues/supermarkets-in-australia>

## 2.4 Power and Control

In the industrial food system, global supermarkets, large retailers and fast food outlets are major power brokers exerting an unprecedented degree of control on others in the supply chain. For example, by moving into new areas of service provision such as petrol distribution, banking and insurance, telecommunication and hotels, supermarkets have an increased scope of operations. This means that they have further entrenched their market power, in addition to being able to exert control over others in the supply chain.

According to Lang and Heasman (2004), such levels of unprecedented control on the food system is being exercised 'by no more than a handful' of transnational corporations (Lang and Heasman 2004). For example, in the United States, the top five companies responsible for sales of packaged foods are Kraft foods (6.8 %), Pepsico (5.2 %), Nestle (4.2 %), Mars (3.2 %) and Kellogg (2.7 %) (Moodie et al. 2013).

This section will explore two examples of the ways in which supermarkets exercise power and control in their dealings with other players in the food supply chain.

(i) Supermarkets Private-Labels

Large global companies such as Heinz, Nestle and Unilever have dominated the production of branded food products for decades. Popular branded products such as Carnation, Lean Cuisine, Milo, Ski (Nestle) and Lipton's, Marmite, Flora and Continental (Unilever) have become popular consumer staples. This dominance is now being usurped by the development of supermarket own brand products, often called private or artisanal labels. Private-label products lead to a more fragmented and competitive landscape. Often lower priced, these private-label products compete directly with the premium products of brand manufacturers. For food manufacturers who are dependent on the supermarkets for shelf space, the development of private-label products is bad news. It means that supermarkets do not have to rely on food manufacturers for a supply of products. Manufacturers may be denied access to shelf space by supermarkets or have to pay increased 'slotting fees' to gain access. Observe arrangements in your local supermarket, and note the proportion of shelf space increasingly devoted to supermarket 'own brand' food products that are placed at the premium eye-level shelf position. The shift towards domination of shelf space by supermarket 'own brand' products is worldwide. For example, the Canadian supermarket giant Loblaw's has the in-house brands 'Presidents Choice' diversified into distinct identifiable subbrands including 'Organics', 'Free From', 'Nutrition First' and 'Black Label Collection'.

'Own brands' generate greater returns for the supermarket, and supermarkets are less dependent on local suppliers and manufacturers as they are able to source both fresh and processed products worldwide. Another advantage of private-label products is that they may be developed relatively quickly compared to the several years of developmental time taken by traditional branded food products. Rapid development time allows for new varieties or flavours to replace those obsolete product lines or those not generating profit. Rapid turnover of new private-label products is designed to stimulate and meet consumer expectations in terms of niche markets and the demand for novelty (Burch and Lawrence 2007).

Burch and Lawrence warn that 'the era of long standing branded food lines are coming to an end. In its place will emerge a retailer dominated food system that is responsible for a wide range of niche food lines' (Burch and Lawrence 2007). Aldi is a case in point; in Australia, the German discount supermarket is almost completely stocked with 'own brand' products and carries a mere 5 % of branded goods that consumers insist on (Burch and Lawrence 2007).

Table 2.2 shows the supermarket in-house brands for the major Australian supermarkets. Also notable is the fact that within these private-label products there are quality distinctions with premium, and budget labels, for example Metcash Purely Organics versus Black & Gold.

**Table 2.2** Home brands of the three major supermarket chains in Australia

Woolworths	Wesfarmers	Metcash
<i>Supermarket 'own brands'</i>		
Woolworths, Home brand, Select, Fresh, Macro, Woolworths Gold, Fresh Emily's Kitchen	Coles, Coles Finest, Coles Green Choice, Coles Smart Buy, Coles Simply Gluten Free, Coles Organic, Coles Simply Less	Black & Gold, IGA, Signature, Way of Life, Purely Organics, Foodland

Source Adapted from <http://www.ethical.org.au/get-informed/issues/supermarkets-in-australia/>

We now move to the second example of supermarket power and control which involves primary producers.

(ii) Farmers and growers

Contractual arrangements between primary producers and 'Big Food' tend to be long term and are characterised by long-term specific produce requirements such as size, shape and guaranteed quantities and delivery. Often, the price offered by the supermarkets is less than growers could get elsewhere in the market. Tensions exist for primary producers between securing a long-term supermarket contract for large volumes at a lower sale price versus trying to sell produce on the open market (Richards et al. 2012).

The degree of supermarket control with growers may extend further to the types of crops grown and sometimes the choice of seed. Coles now employs agronomists to work with farmers and suppliers. New varieties of produce are grown under intellectual property rights to one supermarket. For example, Symphony lettuce TM is a plant combining three varieties of lettuce in one and is produced and sold under licence to Coles supermarkets (<http://www.freshselect.com.au/produce>—accessed Feb 18). Not to be outdone, Woolworths introduced the Kumato® tomato, a brown-skinned tomato developed from interbreeding wild and domestic strains of tomatoes (<http://www.woolworths.com.au/wps/wcm/connect/website/woolworths/freshfoodideas/fresh+food+guides/whatsinseason/kumato+tomatoes>—accessed Feb 18).

Producers under contract to supermarkets are often locked into a lower price for the food they produce, giving them no choice but to accept the payments. In this context, farmers have been referred to 'price takers not price makers', and this is indicative of the lack of control that primary producers have in setting the terms of business. It also clearly demonstrates how power is concentrated in the retail end of the supply chain (Richards et al. 2012).

Such behaviour has resulted in increasing public calls for investigations into supermarket's questionable business practices. Since 2008, the Australian Competition and Consumer Commission (ACCC) have conducted various senate enquiries into the competitiveness of retail prices for basic groceries, including fresh milk. The failure of the ACCC enquiries to ring anti-competitive alarm bells coupled with the finding that grocery retail in Australia was 'workably competitive' has drawn considerable criticism (Richards et al. 2012; Robinson and Vasek

2009). After the ACCC's lack of action regarding reported supermarket abuse, one independent government Senator accused the ACCC of being 'less effective than a toothless Chihuahua' (Richards et al. 2012).

## 2.5 Health Implications of Ultra-Processed Foods Dominating the Food System

As mentioned earlier, ultra-processed foods are energy dense, highly profitable foods that are manufactured, advertised and sold by multinational food companies. They are often sold in large portion sizes, formulated to be hyperpalatable and habit forming (Ludwig 2011; Monteiro et al. 2011; Moodie et al. 2013; Stuckler et al. 2012; Stuckler and Nestle 2012). Unlike fresh produce, ultra-processed foods are shelf stable and their convenient 'ready-to-eat' nature is a strong commercial advantage for MSCs. Consequently, worldwide production and consumption of ultra-processed foods is rising (Moodie et al. 2013), particularly in developing countries (Basu et al. 2012; Monteiro et al. 2011; Moodie et al. 2013; Moubarac et al. 2012; Stuckler et al. 2012; Stuckler and Nestle 2012).

Features such as low fibre and large portion sizes that characterise ultra-processed foods are the same ones that contribute to the development of diet-related diseases. For example, Ludwig notes that the removal of water during processing promotes shelf life and reduces transportation costs but also increases the calorie content in each bite of food (Ludwig 2011).

A diet-based habitually on ultra-processed foods may promote obesity and other diet-related diseases (Basu et al. 2012; Monteiro et al. 2011; Moodie et al. 2013; Moubarac et al. 2012; Stuckler et al. 2012; Stuckler and Nestle 2012). For example, ageing and urbanisation leading to sedentary lifestyles have been the main explanations for rising diabetes worldwide. Work by Basu et al. (2012) investigating which socio-economic and dietary factors are significant population-level contributors to diabetes prevalence rates internationally, found sugar exposure explained why urbanisation and income have been correlated with diabetes rates (Basu et al. 2012).

Analysis on the dietary impact of ultra-processed foods in the Australian context is scarce; however, recent work from Canada may provide insight, given the similarities between the two countries. An investigation by Moubarac et al. (2012) into the consumption of ultra-processed foods in Canada found ultra-processed foods contributed 62 % of dietary energy (as measured by the 2001 national household food expenditure survey). About 75 % of sugar consumed in this study came from soft drinks, juices, confectionary, chocolates, ice creams, pastries, cakes and biscuits. These ready-to-consume sweet foods accounted for 19.2 % of all energy bought by Canadian households. The authors conclude that diets high in ultra-processed foods cannot meet World Health Organization or national dietary recommendations designed to prevent and control obesity and diet-related diseases (Moubarac et al. 2012).

High consumption of ultra-processed foods has also been found to be associated with the prevalence of metabolic syndrome in adolescents in cross-sectional studies (Tavares et al. 2011). Indeed, there is strong and mounting evidence that Big Food is the driving force behind the rise in obesity and other chronic diseases, both in wealthy industrial countries and low- to middle-income countries. The issue is eloquently summed up by Olivier de Schutter, the United Nations Special Rapporteur on the Right to Food who says 'Heavy processing thrives in our global food system and is a win-win for multinational agri-food companies.... But for the people it is a lose-lose. Heavily processed foods lead to diets richer in saturated and trans-fatty acid, salt and sugars...' (De Schutter 2012).

This chapter has provided a brief introduction to the scope and practices of the current industrial food system. We have highlighted the omnipresence and diversification of products and services beyond mere food. The ways in which Big Food exerts power and control within the food chain have also been explored such as the dominance of supermarket 'own brand' labels. Finally, the issue of how our foods systems are contributing to poor health has been covered with an examination of the abundance of ultra-processed foods and the evidence for them as vectors of obesity and diet-related disease.

Having already examined the nature of the industrial food system, we now move to Chap. 3, Foundations of Food Democracy. Food democracy is also described as a 'counterweight' to the dominant industrial foods system. In the next chapter, we will define the term food democracy and examine its democratic origins, importance and key dimensions.

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