

The Rapid Rise of Supermarkets in Latin America: Challenges and Opportunities for Development

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Why are we writing, in the same article, about 'supermarkets' and 'development' in a region where 39% of the people are in poverty and 13% in absolute poverty (Echeverría, 1998)? Are not supermarkets niche players for rich consumers in the capital cities of the region?

The answer is 'no'; that traditional image is now a distant memory of the pre-liberalisation period before the 1990s. This theme issue of *Development Policy Review* shows that supermarkets are now dominant players in most of the agrifood economy of Latin America, having moved from a rough-estimate population-weighted average of 10-20% in 1990 to 50-60% of the retail sector in 2000. In one globalising decade, Latin American retailing made the change which took the US retail sector 50 years.

The supermarkets, together with large-scale food manufacturers, have deeply transformed agrifood markets in the region. Many of those changes spell great challenges – even exclusion – for small farms and processing and distribution firms, but also potentially great opportunities. Development policy and programmes need to adapt to this radical change.

The above findings are derived from the articles in this theme issue, the key points of which are compared in this overview article, and set in the context of background and other recent case literature. Earlier versions of the articles¹ were presented at the International Workshop 'Concentration in the Processing and Retail Segments of the Agrifood System in Latin America, and its Effects on the Rural Poor', held in November 2000 in Santiago, Chile, organised by the International Network for Research on Farming Systems (RIMISP) and funded by the Department for International Development (DFID) of the United Kingdom.

The nine articles are on Argentina, Brazil, Chile, Costa Rica, and Mexico. They focus on the rise of supermarkets and large-scale food manufacturers over the 1990s to the present, and illustrate the effects of their rise on the dairy products and fresh fruit and vegetables (FFV) sectors. Dairy and FFV were chosen because of the interest development programmes have for these products: they are seen as good prospects for small farms and firms because of their higher value-added and income-generation potential and their relative lack of economies of scale (compared with basic grains and

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1. With the exception of the Chile article which was specially commissioned.

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livestock production, in which there has been a rapid rise in average scale over several decades in Latin America).

The articles by Gutman (Argentina), Farina (Brazil) and Faiguenbaum et al. (Chile) illustrate the impacts of supermarkets and dairy processors on the dairy sector. Ghezan et al. (Argentina), Farina (Brazil), Faiguenbaum et al. (Chile), Alvarado and Charmel (Costa Rica), and Schwentesius and Gómez (Mexico) illustrate the impacts of the rise of supermarkets (or fast-food giants as in the study by Ghezan et al.) on the FFV supply chains. Belik and dos Santos (Brazil) and Chavez (Mexico) place in regional perspective the rise of supermarkets and large-scale processors, for MERCOSUR and NAFTA, respectively. Comparison over countries and regions is thus possible and we discuss that below.

Most of the articles consider together the rise of supermarkets and large-scale food manufacturers because similar factors (discussed below) drove both, and because the two have similar and indeed related impacts ‘upstream’ in the agrifood system, on farmers, wholesalers, and first-stage processors. However, because there is a particular dearth in the literature on Latin America on the recent rise of supermarkets, and because of space limitations, this overview article focuses on supermarkets and their impacts on agrifood system development in order to provide context and make comparisons in that domain.

The overview article discusses in turn: (i) definitions of retailer types for the theme issue; (ii) patterns and determinants of the rise of supermarkets; (iii) impacts on the agrifood systems, in general, and in particular for dairy and FFV systems; and (iv) conclusions and implications for development programme and policy strategies.

Definitions: types of food retailers in Latin America

The following definitions hold throughout the volume, abstracting from minor differences in definitions over the countries for simplicity.

Food retailers in Latin America comprise four groups. First, there is a variety of ‘small full-service stores’ that tend to be ‘independent’ (not in chains), ranging from ‘kiosks’, small stands serving pavement traffic, to traditional small full-service shops, either selling a variety of groceries or specialising in fish, meat, fruit, vegetables, or baked goods.

Second, there are ‘traditional markets’ (open-air or covered) that vary from ‘plaza markets’ in the centre of towns or neighbourhoods, that have rows of small retailers or a mix of retailers and wholesalers, to ‘street fairs’. The latter come under a variety of names depending on the country, roughly translating into public access, open-air street fairs and mobile markets: *feira livre* in Portuguese and *feria libre* in Spanish, or *tianguis* in Nahuatl in Mexico. Street fairs are essentially smaller versions of plaza markets, but focused on perishables, that move from neighbourhood to neighbourhood or village to village on a regular schedule.

Third, there are ‘small self-service stores’ (that is, smaller than supermarkets) that tend to be in chains, and vary from ‘hard discounts’ (sometimes on the borderline of being a small supermarket, with a limited set of products, food or non-food or both, an austere format, and low prices), to ‘convenience stores’ such as those located in petrol filling-stations.

Fourth, there are the large self-service stores, in chains or independent. Generally these stores are classed as either 'supermarkets' (roughly 350 to 4000m² and/or with 3-4 or more cash registers, with the precise definition varying somewhat over countries), or the larger 'hypermarkets'. Other large formats include warehouse-formats and membership clubs. Supermarkets tend to have a higher share of food in total sales than do the hypermarkets or clubs. Most of the discussion in this article and the volume as a whole does not depend on distinguishing the various large formats; 'supermarkets' is therefore used for any large-format store unless differentiation is warranted, when the more specific term is used.

Two other sets of terms related to product chains and procurement are used here and in the volume. First, there is a variety of distribution systems used by retailers to procure the products they sell. They buy direct from farms or processors, or the product is bought by a chain's 'distribution centre' from wholesalers or direct from producers, and then distributed to individual stores.

Second, the 'supply chain' (a product-specific subset of the 'agrifood system') is the system in which a product moves from: (i) the farmer and first-stage processor, who sorts, grades, packs, and does the initial processing ('upstream' in the chain), to (ii) the distributor, including assemblers and wholesalers, to the 'downstream' segments: (iii) the second-stage processor or 'food manufacturer' (unless the product is a fresh product), to (iv) the retailer (such as supermarket or restaurant), and thence to (v) the consumer.

Patterns in the rapid rise of supermarkets

Patterns over countries

Table 1 shows the shares of the various types of food retailers in the national retail sectors of 12 Latin American countries, including those covered here as well as others (constituting 90% of the region's economy). Where available, the table distinguishes shares in food retail, and shares in dairy products, meat, and FFV. A number of points stand out.

In total retailing and in food retailing, supermarkets are dominant. By 2001 they had a population-weighted average of 60% of food retailing,² ranging from 45-75% in the largest and/or highest-income countries in the region: Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico – which for simplicity we shall call the 'leading-6', constituting 86% of the income and 74% of the population of Latin America (South and Central America and Mexico). It should also be noted that the bulk of the rural poor are also in Brazil, Mexico, Central America, and the Andean region (Echeverria, 1998), so there is some overlap between the two sets.

For the other 14% of the economy and 26% of the population represented by the remaining countries, the supermarket share in food retailing is around 20-40% – with a much wider variation (from 37% in El Salvador, 35% in Guatemala, 42% in Honduras to 15-20% in Nicaragua) compared with the variation over the leading-6, mainly because of wide divergences in policies, urbanisation rates, and remittance flows. Of

2. Note that the share of supermarkets and hypermarkets in total consumer goods retail is usually higher than that of food retail; for example in Chile in 2001, the former was 62% while the latter was 50%.

course, within a given country of the leading-6 there are differences in the predominance of supermarkets, as discussed below.

Table 1: Supermarket shares in food retail and numbers of stores: selected Latin American countries circa 2000, arranged by per capita income

	Population in millions	Per capita income in thousands	Supermarkets' % of country's food retail	Number of supermarkets (per million population in brackets) ^a	Number of supermarkets OR share of food retail a decade earlier (year)
Argentina	37	7.5	57 ^b	1306 (35)	35% (in 1990)
Mexico	98	5.1	45 ^c	1026 (10) ^d	544
Chile	15	4.6	50 ^e	654 (44)	
Costa Rica	4	3.8	50	221 (55)	113 (in 1990) 85 (in 1984)
Brazil	170	3.6	75	5258 (31) 24000 (141) ^f	14000 (in 1990)
Panama	3	3.3	54	110 (37)	n.a.
El Salvador	6	2.0	37	138 (23)	n.a.
Colombia	42	2.0	38 ^e	1200 (29)	n.a.
Guatemala	11	1.7	35	128 (12)	66 (in 1994) 15% (in 1994)
Ecuador	13	1.2	n.a.	120	n.a.
Honduras	6	0.9	42	37 (6)	n.a.
Nicaragua	5	0.4	n.a.	40 (8)	5 (in 1993)

Notes: a) Only a very rough comparison because raw numbers of supermarkets mask variations in size; b) share was 35% in 1990 and 27% in 1984; c) urban only; d) an underestimate because it does not include independent supermarkets and the government ISSSTE; e) share in total retail (food and non-food) is 62%; f) not strictly comparable with the other figures because ABRAS defines its supermarkets as having 2 or more cash registers while most of the other countries define them as having 3 or more. There are 24,000 supermarkets in Brazil by that definition. We therefore present two estimates: first, just supermarkets with 5 or more cash registers, although this is a strong underestimate because there are many independent supermarkets with 3 cash registers or more; second, the number with 2 or more registers as the definition; the comparable number lies in between the two but we do not have the raw data to ascertain it; g) share in total retail (food and non-food) is 53%.

Sources: Argentina, Gutman and AC Nielsen; Mexico, ANTAD; Chile, Faiguenbaum et al.; Costa Rica, Alvarado and Charmel; Brazil, Farina and ABRAS; Panama, Bertsch (2000); El Salvador, Herrera (2001); Colombia, Hernandez (2000); Guatemala, Orellana (2001); Ecuador, Blanco and Sanchez (1999); Honduras, Orellana and Gómez (2001); Nicaragua, Reardon (2002).

In general, the losers have been the small traditional stores and plaza markets. Many thousands of small shops, 'mom and pop stores', went out of business and there was noted shrinkage in plaza markets in the 1990s in all of the leading-6 countries. For example, 64,198 small shops went out of business in Argentina from 1984 to 1993 (Gutman), and 5240 small shops closed their doors in Chile from 1991 to 1995 (Faiguenbaum et al.). The winners have been the supermarkets and chains of smaller

self-service stores such as the hard discounts and convenience stores. In between are the street fairs (in most countries) and the FFV speciality shops (especially in Argentina) that have held on to a large extent, as the consumer-purchase of FFV has moved more slowly towards supermarkets than other products (see below).

These generalisations hide some important facts about the overall spread of supermarkets even in poorer and/or smaller countries. For example, there are around 705 supermarkets today in Central America (Table 1), 60 of them by end-2002 in Nicaragua, the poorest country in Latin America (Reardon, 2002). Guatemala, the fifth poorest (in per capita terms) of the 18 countries of Latin America, has 128 supermarkets today whereas it had only 66 in 1994, and 35% of food retailing already goes through supermarkets (compared with roughly 15% in 1994) (Orellana, 2001).

The static picture also masks an interesting 'domino' effect as supermarkets spread in the region. While most countries had a few capital city supermarkets in the 1960s-80s (although Mexico had some in the 1940s), the rapid growth in the mid-late 1980s and 1990s saw supermarket chains (national or multinational) spilling over from the richer or larger countries into the small or poorer countries, seeking competitive territory. Hence one saw CSU of Costa Rica moving into Honduras, Nicaragua, and El Salvador in the first half the 1990s, and Chile's Santa Isabel moving into Peru, Ecuador, and Paraguay. Multinationals were by far the dominant force of foreign direct investment (FDI) in retail in Latin America so that the spatial dynamics of inter-country growth patterns were predominantly a result, especially starting in the second half of the 1990s, of investment by global giants such as Wal-Mart, Carrefour, and Ahold. The exception is Chile where domestic capital has stayed dominant up to the present.

There are also clear patterns of 'big fish eats smaller fish, then bigger fish eats big fish, then giant fish eats bigger fish' in the inter-country dynamic growth pattern. For example, the Uruguayan/Argentine chain Disco became larger by acquiring other Argentine firms, then the Chilean Santa Isabel (which had already spread into Peru and Ecuador), and then in turn entered into a joint venture with Royal Ahold of the Netherlands, the largest food retailer in the world, which by that action suddenly had a presence towards the end of the 1990s in Argentina, Chile, Peru, Ecuador, and Paraguay. As this volume goes to press, it has been announced that Royal Ahold has bought Disco's share of their joint venture.

Diffusion over space and socio-economic groups within a country

National averages also mask the geographic and socio-economic patterns of supermarket diffusion within a given country. The general image is also of a 'domino effect'.

On the one hand, in the 1980s supermarkets spread quickly from their 'niche' in capital cities to intermediate cities, and then to medium-sized and small towns in the 1990s. That spread is faster and has gone further in the 'leading-6' countries than the others because of the presence of the supermarket-growth determinants discussed below. Some examples from survey data are as follows. In Chile, 53% of supermarket sales and 70% of stores are outside of Santiago (Santiago has 40% of the 15 million population). Very roughly (based on a survey in the Osorno region, see Faiguenbaum et al. in this volume) about 30% of the small towns have supermarkets (most of them started very recently). In Costa Rica, about 40% of the towns with a population of

around 25,000, basically rural towns, have a supermarket or two (Alvarez and Charmel, this volume). And supermarkets are now peppered throughout the main provincial towns of Nicaragua, whereas only nine years ago there were none (Reardon, 2002).

On the other hand, supermarkets have also moved out of their 'niche' in upper-income neighbourhoods where the few of them pre-1990 were located, to spill into middle-class neighbourhoods in the mid-1990s (at the same time as they were spilling into intermediate cities), and then into working-class neighbourhoods from the late 1990s (while they are also spilling into smaller towns). The latter development is especially occurring by means of large supermarkets and hypermarkets emphasising low prices and austere presentation (such as the Palí supermarkets of the CSU, now CARHCO, chain); supermarket chains are also entering these neighbourhoods and towns together with chains of hard-discount stores.

Determinants of diffusion

What were the determinants of this rapid overall growth of supermarkets?

On the demand side, the main factors were similar to those observed in Europe and the United States in the mid to late twentieth century. We use Chilean examples as they represent similar trends in other countries: (i) urbanisation (the urban population increased in Chile from 75% to 86% between 1970 and 2001, with the consequent growth of the catchment areas of supermarkets); (ii) entry of women into the workforce outside the home (2.8% annual increase between 1989 and 2000 in Chile), with increasing opportunity cost of their time so that they go in for both shopping convenience and processed foods to save cooking time (see Rodriguez et al. in this volume); (iii) rapid growth in real mean per capita income during the 1990s.

In turn, income growth (despite the persistence of substantial poverty as noted earlier) led to: (i) greater demand for non-staples (especially perishables) and processed foods (predicted by Bennett's Law³); (ii) greater availability of refrigerators to store the perishables for a week or two rather than the day-to-day market habits of the past (in Chile, 52% and 82% of all households had refrigerators in 1987 and 2000, respectively); and (iii) growing access to cars by the middle- and middle-low-income classes (in Chile, the number of households owning a car increased by one-third over the period 1996-2000).

On the supply side, trade liberalisation since the early 1980s made it easier and cheaper to import food and non-food products, which implied economies of scope (pay-off and possibility of holding inventories of many goods, giving an advantage to supermarkets over small stores). It also stimulated the import of cars and refrigerators.

At the same time, there was a drastic reduction in the regulations for FDI in the first half of the 1990s, as part of structural adjustment programmes and regional free trade areas, as discussed in Chavez (this volume) for Mexico and NAFTA, and Belik and dos Santos (this volume) for Argentina and Brazil and MERCOSUR. This led to a surge of FDI in retailing into most of the leading-6 countries in the 1990s (except Chile, which had much more domestic capital in retailing), and then into the others starting in the late

3. Bennett's Law states that as household income rises, the food budget share of starchy staples declines and that of non-staples (fruit, vegetables, meats, dairy, fish) increases, as does that of processed foods.

1990s and early 2000s. This was a tremendous force for change in retailing, the main engine of the phenomena discussed next.

Rapid supermarket consolidation and multinationalisation

Two crucial changes occurred in the region’s supermarket sector as it grew in the 1990s. First, there was rapid consolidation. Table 2 shows the share of the top five supermarket chains in 10 countries, where the population-weighted average is 65%. There are two sets of outliers: (i) the smaller and/or poorer countries tend to have higher supermarket sector concentration; (ii) Chile has lower concentration and the rate of growth of consolidation is lower because, unlike in most other countries of the region, domestic chains (D&S and Jumbo) are dominant and have been investing very rapidly, while the shares of the multinationals (Ahold’s Santa Isabel and Carrefour) have actually declined gradually in the past few years.

Table 2: Concentration (share of top 5) and multinationalisation (share of foreign or joint-venture firms), 2001/2 (%)

	Share of top 5 chains in supermarket sales	Share of foreign multinationals (full ownership or joint venture) in supermarket sales	Share of foreign multinationals in top 5 chains’ sales
Argentina	76	64	84
Mexico	80	71	89
Chile ^a	55	10	18
Costa Rica ^b	96	85	89
Brazil	47	43	91
Panama	70	n.a.	n.a.
El Salvador	85	28	33
Colombia	72	60	83
Guatemala	99	93	94
Honduras	71	33	46

Notes: a) Data just updated from ASACH for 2002; b) data from 2002, reflecting joint venture of CSU with Ahold and La Fragua.

Source: Data come from documents noted in Table 1 and our calculations from data.

Second, there was rapid multinationalisation. Table 2 shows, for 10 countries, that the share of multinationals in the supermarket sector is 56% on average (population-weighted), which is 86% of the market share of the top five chains per country. In most countries (again, with the sole exception of Chile), roughly 60-80% of the top five supermarket chains are global multinationals, mainly the top three food retailers in the world, Royal Ahold, Carrefour (both 9000 stores worldwide), and Wal-Mart (the largest company of any kind in the world since January 2002), but also others such as Casino and Auchan (France). There is a relatively higher presence of US firms in Mexico and

of European retailers elsewhere, but in most countries the top three food retailers have an important presence.

The multinationals' entry and growth have been driven by mergers and acquisitions (M&A), although these are gradually giving way to new store development. The first wave of M&A came in the late 1980s (before the wave of FDI) and mainly took the form of the large domestic chains buying local independents and provincial-regional chains (often to pre-empt market territory from the multinationals present or anticipated, as in the case of Chile, Argentina, Mexico, and Brazil). This type of M&A continued into the 1990s. The second, much larger, wave of M&A, started in the early to mid-1990s, was driven by US and European supermarket firms investing internationally, pushed by saturated home markets and pulled by under-stored markets with higher profits. In this second wave, the global multinationals bought many of the large domestic chains (already 'fattened' by their acquisitions of smaller chains) and also joined the domestic chains in taking over the smaller regional chains and independents as the competition spilled from the capital cities into the provinces and across countries (as in the case of Ahold, Disco, and Santa Isabel).

The case of CARHCO illustrates the above argument, and points to the formation of regional (inter-country) chains. La Fragua (the dominant chain of Guatemala) established a joint venture with Ahold in 1999. Then CSU (the dominant retailer in Costa Rica and already a regional multinational in Nicaragua, Honduras and El Salvador) merged with La Fragua and Ahold in January 2002 into the three-way Central American Retail Holding Company (CARHCO), with 253 stores and \$1.3 billion of sales in Central America, a huge move in the retail sector in less than four years.

Effects on agrifood chains and on development

General effects on agrifood supply chains

To understand the effects on agrifood supply chains of the shift from many small retailers to a few supermarket chains, it is essential to understand the incentives and capacity variables that affect the supermarkets' choices of procurement systems. On the one hand, the incentives are driven by the fact that supermarkets are everywhere in stiff competition to win customers by cutting costs, assuring consistency from day to day, and raising product quality and diversity. Cutting costs in turn requires the improvement of all aspects of procurement, including product and transaction costs. This is done by means of the improvements in co-ordination and logistics systems that one sees among the leading chains in most Latin American retail sectors: distribution centres and logistics platforms, contracts with wholesalers and producers, and private standards specifying quality, safety, volume, and packaging of products.

These incentives generally produce an increase in the scale and volume of procurement, which tends to lead to distribution centres that procure products from large areas, handle larger volumes, serve a large number of stores, and work with suppliers whose scale, capital, and managerial and organisational capacity are sufficient to meet the requirements of the procurement system. In general, the above requirements translate into substantial new investments in capital and into new practices and management by suppliers relative to the traditional system. These are expensive but generally perceived as 'worth it' if a supplier can get on a supermarket's procurement

list. The scale of the larger supermarket chains gives them the capacity to pursue the above objectives, since they have the bargaining power, the finance to make investments in logistics, and the geographical presence required.

We now illustrate with examples of the effects on FFV and dairy products chains.

Effects on FFV supply chains

The FFV category is interesting because, on the producer side, it is of major interest to small farmers on account of the relative lack of economies of scale and its income-generation potential; it is also interesting on the retail side because the supermarkets' produce section is considered by supermarket managers as an important strategic marketing instrument to attract consumers and generate profits – and yet the supermarkets' share in FFV retailing has lagged behind that of other product categories. In general, supermarkets' share of FFV retailing is only 50-75% of their share of overall food retailing. For example, supermarkets have 50% of food retailing in Argentina and Mexico, but only 30% of FFV retailing; in Brazil, the share is 80% of overall retailing, 60% of overall food retailing, but only 50% of FFV retailing nationally (and in the São Paulo area only 30% due to the local specificities of the FFV market); and in Chile, the figures are even more striking with supermarkets having 62% of overall and 50% of food retailing, but only 3-8% of FFV retailing nationally.

There are a number of reasons for this. (i) Daily FFV purchase for freshness and quality is traditional in most countries. Faiguenbaum et al. (this volume) note that, in their consumer survey in urban Chile, most consumers perceived more freshness and a greater variety in terms of grades reflected in price/quality ratios for a given type of product in the street fairs than in the supermarkets. (ii) Small FFV shops and street fairs fit easily into dense urban areas where supermarkets cannot physically locate, and so shoppers can reach them on foot every day (this is especially true in parts of giant cities like Mexico City, Buenos Aires, and São Paulo). Supermarket chains have recently responded to this by developing smaller-format hard-discount and convenience store chains to move into these areas (a recent posting in the web page of Chile's D&S, the country's supermarket leader, states their objective of opening small stores in subway stations).

(iii) There is evidence that street fairs and small shops are able to charge prices below those of the supermarkets, because of their being family businesses employing workers not paid formal-sector wages, having lower overheads, and paying no tax. For example, as one moves from the upper to the middle segment to the discount-supermarket to the plaza market in Nicaragua, potato and tomato prices drop by about 10% at each step (Reardon, 2002). However, the evidence is mixed, and sometimes supermarkets (especially the hypermarkets aimed at the working-class market segments) charge lower prices than traditional retailers (see the articles on Mexico by Schwentesius and Gómez, and on Argentina by Ghezan et al. and by Rodriguez et al.).

(iv) The conventional wisdom holds that small shops widely offer consumer credit, and that this is attractive to poor consumers. However, we found few empirical surveys testing this hypothesis. In fact, in the one study we identified (that by Alvarez and Charmel, this volume), the proportion of consumers receiving credit from small shops in the urban areas of Costa Rica amounted to only 17% (for the most 'loyal' customers). Fernando Brom (of COPAL, the food industry association of Argentina) noted that the

practice of consumer credit, at least in Argentina, is a common practice only in small shops in the rural areas and is a thing of the past in medium-sized and large cities, tending to disappear as the culture and neighbourhood configuration change and small shops come under heavy financial pressure (pers. comm., June 2002). Moreover, in many countries (such as Argentina, Brazil, and Costa Rica) supermarkets have moved vigorously into the use of consumer credit cards, which have spread like wildfire.

(v) While many small shops and plaza markets have seen their share of the FFV market erode (as evidenced by the supermarkets' gains in FFV retailing shown above), there is evidence (for example, from Farina and from Mainville (2002) in Brazil and from Ghezan et al. in Argentina) that they have modernised (improved facilities, cleanliness, safety and product quality) in order to face the supermarket competition; there are associations of street-fair merchants in Brazil and Chile which do precisely this. (vi) The upper and middle classes are still the main customers for FFV from supermarkets according to consumer surveys in Mexico, Argentina, Brazil, and Chile.

Nevertheless, despite supermarkets gaining less on FFV than on other categories, the reality is that their importance in FFV in the region has grown very fast – with supermarkets now having shares of 50%, 30%, and 30% of FFV retailing in Brazil, Argentina, and Mexico respectively, amounting to a population-weighted average of 42% of FFV retailing for two-thirds of the Latin American economy. A rough estimate is that 20 years ago the share did not exceed 5% in these countries.

This simply means that habits do change and that supermarkets have adapted. How? (i) There is evidence in some places that supermarkets charge lower prices (especially on sales days and in hypermarkets geared to working-class neighbourhoods) than small shops (Schwentesus and Gómez for Mexico, and Ghezan et al. for Argentina). (ii) The density of supermarkets has soared over the past decade, which means that it is easier for shoppers to purchase FFV frequently from them compared with a decade ago. (iii) Supermarkets imitate the style of street fairs in some places (as we observed in the town of Osorno, Chile, where street fairs and the plaza market have declined sharply with supermarket growth over only the past five years).

With such a substantial presence, supermarkets have had important effects on FFV systems that are still in the early stages of development and change. First, there has been a substantial shift by supermarkets during the 1990s away from FFV procurement in wholesale markets (with evidence of rapid shifts in Argentina (Ghezan et al.), Brazil (Farina, and Mainville, 2002), Chile (Faiguenbaum et al.), and Costa Rica (Alvarez and Charmel), and some emerging shift in Mexico (Schwentesus and Gómez) and Nicaragua (Reardon, 2002). Supermarkets tend to find that the traditional wholesalers provide inadequate service since they lack standards, mix items of different grades, and have significant bargaining power in the wholesale markets because wholesaling is usually quite concentrated per product rubric. Supermarkets tend to continue to procure from wholesale markets only where they cannot make adequate arrangements direct with producers through their own distribution centres, or where new types of wholesalers emerge to meet their needs.

Examples of new types of specialised FFV wholesalers serving supermarkets (a phenomenon one sees in the US and Europe as well; see Reardon et al., 2002) are generally agroexporters and agroindustrial firms which are used to dealing in volume and meeting safety and quality standards. An example of an agroexporter that also sells to local supermarkets is Hortifruti of Chile which employs stringent quality and food

safety standards (the latter audited by a third-party auditor such as Davis Fresh Technologies based in California). Other examples (of both agroexporters and agroindustries with divisions for sales of fresh FFV to local supermarkets) are given by Schwentesius and Gómez (this volume) for Mexico. Some of these firms are under contract as dedicated wholesalers or are in joint ventures with the retailers. This is also becoming common in the US and Europe.

Some chains are even using their distribution centres, sourcing networks, and/or joint-venture operations to both supply their local stores and export produce between Latin American countries and from Latin America to the global market. Three fascinating examples can be cited. (i) Hortifruti, a firm in the same holding company (Grupo Mas x Menos) as the supermarket chain CSU of Costa Rica (now part of CARHCO as noted above) and operating along with CSU in Costa Rica (its headquarters), Nicaragua, and Honduras, supplies (under its private label) produce to Costa Rican CSU stores and also exports Costa Rican produce to CSU stores and non-CSU buyers in those countries plus El Salvador and the US, as well as contracting produce from suppliers in Nicaragua to supply CSU stores there and to export to Honduras, the US, and Costa Rica. It is thus a regional multinational wholesaler associated with a regional (and now global) multinational retailer (Alvarado and Charmel, this volume, and Reardon, 2002). (ii) Carrefour uses its global sourcing network to contract melon producers in northeast Brazil to supply its 67 stores in Brazil as well as Carrefour distribution centres in 21 countries (Farina, this volume). It also has a 3-state (50 million consumers) distribution centre in São Paulo which sources from around the country and imports from the region (Belik and dos Santos, this volume). (iii) Ahold's regional sourcing network (based in Argentina at Ahold-Disco and linked to Ahold-Santa Isabel in Chile, Peru, Ecuador, and Paraguay) sources apples from Chile to supply its distribution centre in Peru.

Individual stores and the chain, via the distribution centre, contract with wholesalers as well as direct with farmers. Just as in the US (McLaughlin et al., 2001), contracting with growers is on the increase. As Schwentesius and Gómez point out for Mexico, it tends to be medium-sized farmers who can meet the quality and logistical requirements, including volume and consistency, demanded by the supermarkets. In some cases, dedicated wholesalers contract farmers on behalf of the supermarkets, as Hortifruti does with 500 FFV farmers in Costa Rica (Alvarado and Charmel, this volume) and 200 (80% of them small growers) in Nicaragua (Reardon, 2002). Sometimes the relations are directly with small farmer co-operatives, such as the unsuccessful case of the lime growers in Mexico described by Schwentesius and Gómez, and the successful vegetable case noted by Faiguenbaum et al. for Purranque, Chile, where smaller provincial supermarket chains source from local farmers and thus can project an image of 'your local store benefiting your local community'. There is also the example of Carrefour's quality certification for tomato growers in Mexico.

These new procurement practices – consolidating purchases in distribution centres and sourcing networks, increasing chain co-ordination through contracts with wholesalers and growers, requiring demanding private standards and certifications (the use of which varies by chain, product, and country) – in addition to commercial practices such as waiting many days (the articles note a range of 15 to 90 days with a common figure 45 to 60 days) after product delivery to make payment, spell tough but profitable conditions for growers. They imply new investments in production

technology and equipment (trucks, cooling sheds and cold chains, packing), in management and co-ordination to ensure quality as defined by the supermarket, in consistency and timing, and in larger volumes supplied to consolidated buying points, all keeping down costs.

While the evidence is only just emerging, it is safe to say that the above requirements are most easily met by the medium to large FFV producers. The articles in this volume provide some evidence of shifts, gradual or abrupt (such as the failure of the small farmers' lime association in Mexico), in which small farmers have had to drop out because they cannot make the grade.

A recent study of small farmers' economic organisations in Chile (Berdegué, 2001) found that many of them are having a hard time meeting the demands of the supermarkets while at the same time generating higher incomes for their members, compared with their sales to traditional markets. The scale of operations of even 50 or 75 associated small growers, each with 1 or 2 ha under FFV, is often not sufficient to offset the cost of such supermarket procurement practices as long-term payments (up to 60 and even 90 days after delivery), high rates of rejected produce (not sold within one or two days), and supermarket costs such as shelf fees and special discounts usually offered to consumers once a week. In addition, in order to sell to supermarkets, these smallholder organisations have to incur significant costs to ensure product homogeneity, co-ordination of harvest, centralised grading, sorting, packaging and delivery, and in administration. Finally, in contrast to the traditional markets, working with supermarkets means having to adopt formal accounting and invoicing practices, and thus being unable to avoid paying taxes. As a result, smallholder co-operatives, such as 'We Tekucan' which for a couple of years was the leading supermarket supplier of fresh vegetables in the intermediate city of Temuco, have gone under even after their initial success (which they financed through soft loans and subsidies from public development programmes) in selling to supermarkets.

But exclusion of the small growers from participating does not appear to be in any way automatic. There are also cases of success, such as the Purranque, Chile co-operative, or the Hortifruti case cited above. In all cases, there was public (INDAP in the case of Chile) or private (Hortifruti) assistance to help the growers, with technical assistance and suppliers' input credit.

Effects on dairy products supply chains

The findings concerning the effects on dairy products supply chains are drawn mainly from the articles by Gutman (Argentina), Farina (Brazil) and Faiguenbaum et al. (Chile) as well as Jank et al. (1999) and Berdegué (2001). In general, the role of supermarkets in dairy products chains is closely related to and meshed with the rapid concentration of large-scale processing firms, so they need to be discussed together. Combined with changes in public and private standards and regulations, they have transformed the supply system in dairy farming itself, and in the products available to consumers.

Brazil, Argentina, and Chile had general public regulations in place for basic milk safety for many years, focused on upper-grade milk and pasteurisation. But starting in the 1980s, with the advent of generalised pasteurisation, the processors introduced private standards of milk quality. This initiated the first wave of change in the dairy sector, and began a process of concentrating dairy farms. The new quality standards,

coupled with public regulations concerning milk safety, required investments in mechanical milking, cooling tanks, and new feeds and animal genetics. Many small dairy farmers were unable to afford these investments and went out of business or were pushed to the less profitable and *de facto* less regulated informal market.

The introduction in the late 1980s of UHT-Tetrapak milk (ultra-high temperature-treated, vacuum-packed milk, storable for long periods) brought a second wave of change in the dairy sector. On the one hand, it revolutionised dairy products consumption and production in only a decade. In Brazil, for instance, the UHT share went from zero in 1988 to 92% of the fluid milk formal market (60% of all milk) in 2000. Public standards did not adapt adequately or quickly enough to the large processors' needs, and the latter imposed private standards for UHT milk as well as high-quality products such as yoghurts after 1990 in Brazil and Argentina. The competition in the dairy sector, plus the new demanding standards plus technical requirements driven by the new products, brought a second wave of de-listing of small suppliers in the second half of the 1990s; Farina notes that 60,000 small dairy farmers were removed by the 12 largest processors in Brazil in that period. Gutman describes similar processes in Argentina, as do Berdegué (2001) and Dirven (1999) for Chile. Moreover, the long-storage aspect allowed easy transport and shifted milk production from zones near the main cities to low-cost production zones.

On the other hand, supermarkets played a key role in this dairy sector change. The market for commodity milk products (most of the fluid milk) and some differentiated products (such as yoghurts and dairy desserts) shifted from small shops to the supermarkets within a decade in both Argentina and Brazil. Cheeses, however, continued to be sold in both shops and supermarkets. The scale of the supermarket chains' procurement allowed them to hold down the costs of UHT for consumers, and Tetrapak solved the transport and storage problems for milk. Supermarkets thus became a vehicle for the rapid increase in dairy products consumption, and worked closely in product innovation and logistics systems with the large processors. The stiff competition among supermarket chains in the 1990s pushed milk product margins down, and drove up procurement volumes, delivery requirements and inventory management efficiency. All this increased the intensity of competition among milk processors, fuelling consolidation and cost and quality pressures on the farmers.

Thirdly, relations between supermarkets and the large processors resemble the 'can't live with him, can't live without him' syndrome, but with the net result that they are growing together. The bargaining power and managerial and technological prowess of the large processors helped the supermarket chains cut costs, differentiate products, and improve quality, while the supermarket chains' ability to create large, homogeneous markets helped the processors grow and increase the consumer loyalty to lead brands. The largest suppliers such as Nestlé and Parmalat have global relationships with the global multinational supermarket chains dominating Argentine and Brazilian retailing (Carrefour, Ahold, Wal-Mart). However, supermarket chains and dairy product suppliers have been in repeated conflict as the market grows, with each side identifying what it considers the abuse of market power by the other, and each using methods to gain advantage (private labels by supermarkets as alternatives to national or global brands; encouragement by large processors of independent supermarkets as alternative buyers, as Farina shows).

Fourth, while it appears that the consumer is a clear winner in these dairy sector developments, in terms of price (which fell rapidly in the 1990s), quality, availability, convenience, safety, and diversity, the process was tough on the small dairy processors and farmers. It seems unlikely that the changes will be reversed and indeed there are reasons to believe that they will proceed further, this time led by new public regulations. Farina notes that in Brazil the government and the various actors in the dairy sector are in negotiations to enact a set of public regulations that will follow the spirit and perhaps the letter of the demanding private standards, and to extend these into the informal sector, thus gradually reducing the existing secondary market for milk. The same process is being initiated by the Costa Rican government and CACIA (the food industry organisation).

Conclusions: development policy and programme options

Conclusions

First, in little more than a decade, supermarkets are rapidly taking over food retailing in Latin America. In 2000 they had roughly 60% on average of the national retail sectors in South America and Mexico.

Second, supermarkets have moved far beyond their original niches (upper-income, capital cities of the largest and richest countries) in the 1970s and 1980s and have spread to middle- and working-class market segments and into medium-sized cities and towns and the poorer countries in the region. This, together with the first point, means that they directly affect rural zones on both the supply and demand side.

Third, supermarkets and large processors are already, or fast becoming, the main retail buyers in the supply chains of processed foods. Their share is growing in fresh fruit and vegetables (FFV) which is still mostly sold by small shops and open-air markets. Dairy products, FFV, and value-added foods are the ‘gleam in the eye’ of rural development programme managers, governments, and donors because they pay better than basic staples and so can be avenues of poverty alleviation, and dairy products and FFV tend not to have such important economies of scale in production.

Fourth, the supermarkets’ and large processors’ procurement practices – quality and safety standards, packing and packaging, cost, volumes, consistency, payment practices – have a big impact on, and are an important challenge for, farmers and supply chains in the region. These ‘downstream’ segments of the chain, through their co-ordinating institutions and organisation such as contracts, private standards, sourcing networks, and distribution centres, are quickly reformulating the ‘rules of the game’ for farmers and first-stage processors.

Fifth, the supermarkets are also a big opportunity; they are both a motor for broadening and deepening the consumer market, and the ‘toll booth’ on the way to selling to the growing markets, the urban areas and the middle classes. Supermarkets have national, regional, and global chains and procurement systems that facilitate the growth of key food markets. To prepare farmers to take advantage of those opportunities and meet those challenges requires special and immediate attention and a re-design of development strategy for the small farm and small firm sector. Options for doing this are discussed next.

Policy and programme options

It is very probable that supermarkets are in the region for the long term, because they arise from, and respond to, basic structural change and development of the region's economies. In the United States in the 1930s, there were aggressive political campaigns and laws to stop the expansion of supermarkets. But in the longer run support for these was eroded on the part of both producers (despite the bumpy road of their relations with the supermarkets) and consumers because of the benefits these new large retailers brought to both.

The primary policy position would appear to be: (i) to accept that supermarkets are here to stay and are an overwhelmingly major force in the agrifood economy of Latin America; (ii) to recognise that they can be engines of market development; (iii) to worry about their effects on the agrifood systems in terms of the potential exclusion of small firms and farms; (iv) to help the latter meet the challenges of supplying to supermarkets where this is possible, and encourage the development of retail alternatives for them where it is not. Programme and policy options are reviewed below.

First, development agencies and projects must internalise the fact that, increasingly, 'product markets' will mean 'supermarkets'. Thus, 'market-oriented programmes and policies' will in fact be 'supermarket-oriented'. If one adds that in each country three or four chains can command up to 50% or more of the supermarket sector, the conclusion is that development programmes and policies will need to learn how to deal with just a handful of giant companies. This is an enormous challenge, and demands an urgent review and revision of current ideas, strategies, and practices.

Moreover, development agencies need to take into account that small farmers and entrepreneurs have to gear up quickly to compete in the new markets that are spreading over most of the food economy. The local market niches with low standards are disappearing under the pressure of this wave, and the distinction between the global/export market and the local/domestic market is disappearing.

This latter point is even more important when one takes into account that in many countries local supermarkets are already a larger, even much larger, market for fruit and vegetables than are non-traditional produce exports. Governments and donors would thus do well to focus their programme not just on extra-regional exports but on the burgeoning market of the local supermarkets. We made a rough calculation⁴ and found that the Latin American domestic market for FFV – in supermarkets – is US\$24 billion while the total exports of these products (from the 12 countries studied) was \$10.5 billion (including bananas) and \$8.2 billion (excluding bananas). This means the Latin American supermarket market is 2-3 times the size of FFV exports. The implications are striking for development programmes looking to help small farmers find new markets. Furthermore, given that the trend is towards supermarkets sourcing regionally and forming regional chains, programmes should aim to help small farms and firms export within their regions to these chains, such as the new CARHCO chain in Central America with 253 stores and \$1.3 billion dollars of sales per year.

4. We used a rough estimate of 5% of income spent on FFV based on the Chile and Mexico studies, and 30% for the supermarket share in FFV retail (about half the population-weighted share in overall food retail); we used export data from FAOSTAT for 2000. Even if one uses a lower estimate, say 20%, for the supermarket share of FFV retail, the general result still holds.

Second, it is crucial to promote good business practices that optimise retailer-supplier relations, protecting both sides. These can be nurtured by establishing and/or improving contract regulations and business rules of practice such as the PACA (Perishable Agricultural Commodities Act, 1936, in the US), updated in 1997 with a prompt-payment amendment to pay in 30 days, and a similar law adopted in March 2002 in Argentina to require payment to FFV growers within 30 days. They can also be fostered by private sector codes of practice (negotiated among retailers and suppliers) such as the new codes adopted in Argentina in 2001 (Brom, 2002, and www.cas.com.ar/cas/codigo.htm) and Spain in 1991, and under negotiation in Costa Rica and Brazil as we go to press.

Third, it is important to promote competition in the supermarket sector and in the retail sector in general. Good examples to follow appear to be the careful reviews of supermarket mergers and acquisitions by the Competition Commissions in Brazil and Argentina, or the Federal Trade Commission in the US. Moreover, it is valuable to promote the modernisation and development of speciality shops and street fairs both for their cultural and employment value to the local communities, and as alternatives for small suppliers. Supporting the development of these retailers, for example by helping them to adjust to consumer preferences in terms not so much of product quality as of quality of services (cleanliness, safety, parking space, honesty and transparency of weights and measures), could be invaluable.

Fourth, however, regulations do not in the end alter the economic forces under which the supermarket buyer operates, and the changes in procurement system are driven by those forces. Controlling for specific conditions such as payment periods, these changes and the basic requirements they impose on growers are conditions which the latter will need to meet if they are to be able to tap the powerful market of the supermarkets. It is crucial that government and donor development agencies help small farmers and entrepreneurs to make the investments in equipment, management, technology, commercial practices, and the development of strong and efficient organisations, to meet those requirements.

Two useful examples of such help stand out. The first is the *Fabrica do Agricultor* programme in Paran , Brazil (Del Grossi and da Silva, 2001). The state government and the World Bank help local small-scale food processors to sell to supermarkets in the intermediate cities, providing them with technical assistance in processing and packaging, and marketing training and contacts. They also help by creating a licensing/certification programme for businesses at the state level, to enable them to engage in commercial relations with the supermarkets. The second is AGEXPRONT in Guatemala, which, along with the Ministry of Agriculture, has developed PIPAA (a food safety certification originally developed in the 1990s for exporting) that is now being extended to help producers sell to the supermarket chains in Guatemala (Estrada, 2002). This system helps to bring small producers of FFV up to the standard to supply to supermarkets and the export market. There is a need for many more of these successful programmes.

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