


10-1

Globalization and the Nutrition Transition: A Case Study

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Executive Summary

In the current “nutrition transition,” the consumption of high-calorie, nutrient-poor foods high in fats and sweeteners is increasing throughout the developing world. The nutrition transition, implicated in the rapid rise of obesity and diet-related chronic diseases worldwide, is rooted in the processes of globalization. Globalization affects the nature of the food supply chain, thereby altering the quantity, type, cost, and desirability of foods available for consumption. Understanding the links between globalization and the nutrition transition can thus help policy makers develop policies, including food policies, for addressing the global burden of chronic disease.

This case study explores how one of the central mechanisms of globalization, the integration of the global marketplace, is affecting specific food consumption trends in the context of the nutrition transition. Focusing on middle-income countries, it highlights the importance of three major processes of market integration: the production and trade of agricultural goods, foreign direct investment in food processing and retailing, and global food advertising and promotion.

It finds that policies and processes designed to advance the globalization of the world economy in the areas of agriculture, trade, investment, and marketing are shaping dietary trends. Thus the policies designed to integrate the global food market matter for what people eat. Dietary outcomes also depend on the socioeconomic and cultural context in which the policies are operating, as well as changes in consumer behavior.

The dynamic, competitive forces unleashed as a result of globalization facilitate not only convergence in consumption habits (“Coca-Colonization”), but also adaptation to products targeted at different niche markets. This convergence-divergence duality raises the policy concern that globalization will exacerbate uneven dietary development between rich and poor. As high-income groups in developing countries accrue the benefits of a more dynamic marketplace, lower-income groups may well experience convergence toward poor-quality obesogenic diets, as observed in Western countries.

Health policy makers should pay greater attention to globalization processes and policies in order to

address some of the structural causes of obesity and diet-related chronic diseases worldwide, especially among groups with low socioeconomic status. The benefit of leveraging policies designed to integrate global food markets to encourage healthy diets is that relatively small changes at a macro-scale can have relatively large population-wide impacts.

Your assignment is to advise a government of a middle-income developing country about appropriate policies to mitigate the negative effects of the nutrition transition in the context of globalization, taking into account the interests of the various stakeholder groups.

Background

Globalization and the Nutrition Transition

The “nutrition transition” refers to the trend ongoing in the developing world in which the consumption of foods high in fats and sweeteners is increasing, that of cereals is declining, and the intake of fruits and vegetables remains inadequate (Popkin 1998; Caballero and Popkin 2002). Unlike populations affected by hunger, populations affected by the nutrition transition have diets adequate in energy, but the quality of the diet remains poor and often involves the intake of more energy than needed. Poor-quality diets are a leading risk factor for diet-related chronic diseases, like heart disease, diabetes, and some cancers, as well as overweight, obesity, and hypertension. As a result, the prevalence of diet-related chronic diseases is rising in developing countries. Although the highest death rates from all chronic diseases are still found in high-income developed countries, rates are predicted to increase in all countries—and in absolute numbers, more people now die of heart disease in developing countries than in developed countries (Strong et al. 2005). Death rates from chronic diseases are also rising among the poor within developing countries (WHO 2005).

The nutrition transition is deeply rooted in the processes of globalization. Globalization is associated with changing incomes and lifestyles. In addition, by radically altering the nature of the food supply chain, globalization is altering the quantity, type, cost, and desirability of foods available for consumption.

Globalization affects food systems around the world. It changes the availability of and access to food through its effects on food production, procurement, and distribution. Such changes bring about a gradual shift in food culture, dietary consumption patterns, and nutritional status (Kennedy et al. 2004). A better understanding of the link between globalization, the food supply, and the nutrition transition is essential in order to locate potential levers for policy interventions to improve diet quality.

Globalization is driven by series of interacting processes, among which the following are critical in driving the nutrition transition:

- liberalization of international food trade;
- liberalization of foreign direct investment;
- global food advertising and promotion;
- emergence of global agribusiness and transnational food companies; and
- retail restructuring (notably the development of transnational supermarkets).

Each of these processes is affected by what are termed here “globalization policies”: policies that aim to, in some way, integrate local, national, or regional economies further into the global marketplace. These policies can be implemented at a range of scales—from local to global—by a wide range of stakeholders.

Determining the precise relationship between globalization processes and policies and the nutrition transition is a challenge because of the complex and multidimensional interactions between global economics and health in general (Harris and Seid 2004). Different perspectives give rise to an often polarized debate about the impacts of globalization on health (Lee et al. 2002). Some say globalization is mainly good for health (Dollar 2001); others, that it is inherently problematic (Berlinguer 1999). The reality is that globalization, like any policy choice, is likely to bring threats and opportunities, improving health in some circumstances and damaging it in others (Cornia 2001).

The actual effects of globalization processes and policies are largely dependent on the global, national, community, and household contexts in which they are operating (Labonte 2004). In other words, homogenizing processes can have very heterogeneous effects, so the same globalization

processes can have different outcomes for different groups of people.

Globalization is therefore a dynamic process of both mass global change and local, contextualized differentiation. In dietary terms, these forces can be articulated as “dietary convergence” and “dietary adaptation”; each, in a seemingly contradictory unity, is part and parcel of the nutrition transition. According to Kennedy et al. (2004, 9), dietary convergence is “increased reliance on a narrow base of staple grains, increased consumption of meat and meat products, dairy products, edible oil, salt and sugar, and a lower intake of dietary fibre.” Indeed, analysis by the Food and Agriculture Organization of the United Nations (FAO) suggests that diets in countries more integrated into the world economy are converging in terms of primary commodities (Bruinsma 2003). On the other hand, dietary adaptation is “increased consumption of brand-name processed and store-bought food, an increased number of meals eaten outside the home, and consumer behaviours driven by the appeal of new foods available” (Kennedy et al. 2004, 9). Convergence, the authors argue, is driven mainly by changes in income and price. Adaptation, in contrast, is driven by demands on time, increased exposure to advertising, availability of new foods, and emergence of new food retail outlets.

This case study investigates how policies implemented to advance the globalization of the food supply chain are linked with the coexistence of the apparently contradictory processes of dietary convergence and adaptation. Focusing on middle-income countries, it explores one of the central mechanisms of globalization: the integration of the global marketplace—specifically, the impacts of three major processes of market integration on dietary patterns. The three processes are (1) the production and exchange of goods, presented here in the form of agricultural production and trade; (2) the flow of investment across borders in the form of foreign direct investment (FDI) in food processing and retailing; and (3) the global communication of information in the form of promotional food marketing. These processes represent important aspects of the food supply chain from production to consumption.

Agricultural Production and Trade

Global market integration is characterized by a combination of formerly separated markets into a single market. Agriculture is central to this aspect of globalization and the theory of comparative advantage that lies behind it (that is, the production of agricultural goods should be located where there is a comparative advantage in producing them, owing to factors such as climate, labor, and access to technology). In a globally integrated agricultural market, the idea is that nations specialize in producing food consistent with their resource endowment and then trade those foods among themselves. The desired result is greater economic efficiency, a more consistent food supply, lower costs of production, and, in theory, cheaper food.

Before modern economic globalization, countries tended to favor the protection of domestic agricultural markets, a tendency clearly inconsistent with the theory of comparative advantage. Increasing the market orientation (that is, the degree of liberalization) of the production and exchange of agricultural goods within and between nations has thus become a critical component of globalization. During the 1970s and 1980s, many low- and middle-income countries underwent “structural adjustment,” which included implementing more market-oriented agricultural policies. The pace of reform accelerated in the 1990s as many countries liberalized their agricultural markets internally and internationally. Regional trade agreements, signed at a steady but slow pace through 1970s and 1980s, soared to a rate of 15 per year in the 1990s (FAO 2004). And in 1994 agriculture was included in global trade rules for the first time: the Agreement on Agriculture of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) committed countries to reducing tariffs, export subsidies, and domestic agricultural support. Bilateral agreements and new rules on technical barriers to trade also affected food and agricultural trade. This range of policy shifts over the past 20–30 years has led to a more liberal global agricultural marketplace, although it cannot yet be described as “open” because high levels of protection still exist in various forms.

This liberalizing agricultural market has enabled more and different food trade, higher foreign investment, and the enlargement of transnational food companies (TFCs). In developing countries, food import bills as share of gross domestic

product (GDP) more than doubled between 1974 and 2004, and processed agricultural products rose much faster as a share of trade than primary agricultural products (FAO 2004). More open trade and investment have made it easier to buy companies, products, and services across national borders, creating incentives for TFCs to grow through global vertical integration and sourcing (Heffernan et al. 1994). Global vertical integration—when a company brings together the entire process of producing, distributing, and selling a particular food under its control by buying and contracting other companies and services worldwide—reduces the transaction costs associated with having different suppliers and creates economies of scale (Martinez 2002). Global outsourcing—when a company searches for inputs, production sites, and outputs where costs are lower and regulatory, political, and social regimes favorable—enables TFCs to cut costs and helps safeguard against the uncertainty of commodity production and product sales (Heffernan et al. 1994).

It is well documented that these changes in the global food supply chain have affected agricultural producers. Less well documented is how they have altered the supply of foods associated with the nutrition transition. Vegetable oils are a case in point. Oil crops have been one of the most dynamic agricultural sectors in recent decades. Production (in metric tons) grew at a rate of 4.1 percent per year between 1979 to 1999, relative to 2.1 percent for agriculture as a whole (Bruinsma 2003). World oil crop production increased by more than 60 percent between 1990 and 2003, with growth driven by the top three oils: soybean, palm, and canola/rape. Growth has been concentrated in Asia and Latin America rather than in the traditional production zones of North America and Western Europe. Between 1994 and 2004, edible oil production in China increased nearly twofold, soybean oil production in Brazil by one-half and in Argentina twofold, and palm oil production in Malaysia by two-thirds (Beckman 2005).

Similar trends are seen for consumption. Between 1990 and 2003, vegetable oil consumption in the United States and Western Europe increased by just one-quarter, whereas it doubled in China and increased by one-half in India. Overall, between 1982–1984 and 2000–2002 vegetable oils contributed more than any other food group to the increase in calorie availability worldwide (they

contributed an additional 70 kilocalories/capita/day) (FAO 2005). Vegetable oils can thus clearly be implicated in rising dietary fat intakes worldwide (Drewnowski and Popkin 1997).

Increased consumption can be explained not only by rising demand, but also by supply-side policies, as illustrated by the experiences of the three largest emerging economies, Brazil, China, and India, with soybean oil. The world's leading vegetable oil, soybean oil is used widely as a cooking oil and, often in partially hydrogenated form, in processed foods.

Brazil is the world's second-largest soybean producer and exporter (the United States is the largest producer and Argentina the largest exporter). During the 1960s and 1970s, government policies explicitly promoted the production, export, and domestic consumption of soybean oil (Schnepf et al. 2001). In the 1990s, in line with the globalization agenda, the government opened up its soybean market and reduced government intervention. New policies reduced restrictions on foreign investment (to encourage the entry of more foreign capital into the soybean market), restructured farm income taxes (to encourage greater investment in soybean production), lowered import tariffs on fertilizers and pesticides (to facilitate higher soybean yields), and eliminated the soybean export tax (to promote greater exports) (Schnepf et al. 2001). The government also implemented the "*Real* [currency] Plan," which altered the nation's economic conditions. Devaluation of the *real* later in the decade caused the cost of Brazilian beans on the world market to fall (Beckman 2005). As intended, these policy changes spurred acceleration of production and exports. Production costs fell and returns to producers rose. Combined with the abundant availability of low-cost land, this situation encouraged farmers to bring more land into production (USDA 2004). And in light of lower production and transportation costs, vertically integrated TFCs, such as U.S.-based Cargill (the largest soybean exporter in Brazil) and Bunge (the largest soybean processor), increased their investments in the Brazilian crushing industry (Schnepf et al. 2001).

The result of these policy shifts was a 67 percent increase in soybean oil production between 1990 and 2001, a more than doubling of exports, and one of the lowest soybean oil prices worldwide (Beckman 2005). But somewhat ironically, the massive growth in soybean oil production in the 1990s

is not associated with increased consumption in Brazil. Although the data are difficult to interpret, per capita calorie consumption (already relatively high) appeared to decline, or at least stabilize, during the 1990s. Rather, production was delivered to the global market, facilitating dietary changes across the globe in countries, like China and India, that were also liberalizing their markets in line with the globalization agenda.

China implemented new tax and import regulations to encourage soybean oil imports and greater domestic production in the 1990s (Beckman 2005). Brazil, able to produce at low prices, became a major source for China of soybeans (for crushing) and soybean oil (Hsu and Gale 2001). Between 2002 and 2004, Brazil remained a crucial supplier of soy to China when greater trade openness led to a doubling of agricultural imports, of which soy formed a large proportion (Gale 2005). Consequently, the calories available from soybean oil in China increased dramatically from 27 to 78 per capita per day between 1989–1991 and 2000–2002. Although this growth probably brought some benefits to underconsuming populations, consumption of vegetable oils in urban and some rural areas now exceeds recommended levels, a trend the Chinese government has identified as a source of concern given the rapidly rising rates of obesity and chronic diseases in the country (Ma 2004). Recent trade policies will likely increase the ready availability of soybean oil. China's accession to the World Trade Organization (WTO) has reduced import tariffs and quantitative restrictions, and these changes are predicted to significantly increase soybean oil imports, lower prices, and increase demand (Hsu and Gale 2001). Moreover, China continues to view Brazil as a good source of cheap soybeans: the Chinese government is planning to invest US\$5 billion in Brazilian transportation systems to help them continue to produce soybean oil at competitive prices (U.S. Commercial Service Brazil 2005).

India, itself the world's fifth-largest producer of soybean oil, likewise imports Brazilian soybeans and oil. In the mid-1990s India was a relatively small importer of vegetable oils; by 1998 the country had become the world's leading importer (Dohman et al. 2003). This rapid change is directly related to market liberalization. In 1994/1995, as part of unilateral efforts to liberalize trade and the need to follow international rules negotiated under the GATT (which culminated in the signing of the

Agreement on Agriculture and the founding of the WTO), India eliminated the state monopoly on vegetable oil imports (Dohlman et al. 2003). In the face of low domestic production, imports increased significantly, especially of the lowest-cost oils. Between 1989–1991 and 2000–2002, palm oil imports increased from 0.35 to 3.32 million metric tons, and soybean oil from 0.26 to 1.05 million metric tons (FAO 2005). Brazilian (and Argentinean) soybeans and oil were favored owing to their lower price and transportation costs relative to the United States. Brazil also had the advantage of a high season and thus cheaper beans during the seasons of low production in India (Dohlman et al. 2003). The result was lower prices for vegetable oils, increased consumption, and increased share of consumption of imported oils: by the end of the 1990s, soybean oil accounted for 21 percent of consumption (and palm oil, 28 percent). This stands in stark contrast to the complete dominance of consumption of peanut, rapeseed, and cottonseed oil in the 1970s, a reflection of domestic production (Dohlman et al. 2003). Today, prices of edible oils in India are now more affected by soybean output in Argentina, Brazil, and the United States than by domestic production (Prasad 2004).

This complex web of economic globalization illustrates how a series of policy reforms in three different countries had the effect of integrating the global soybean oil market and, in so doing, facilitated the worldwide convergence of higher soybean oil consumption worldwide. Dietary convergence has occurred not only in the use of soybean oil in cooking, but also in partially hydrogenated form in processed foods. Partial hydrogenation leads to the creation of trans fats, which increase the risk of coronary heart disease (FDA 2003). As a means of discouraging consumption, governments in Brazil and the other members of the Southern Common Market (Argentina, Paraguay, Uruguay, Venezuela), Canada, and the United States have ruled that trans fats must be labelled on packaged foods (Hawkes 2004a). Yet dietary convergence of soybean oil consumption is likely to continue: the WTO is expected to reach an agreement in the next few years to further liberalize the vegetable oils market (Beckman 2005). Along with implications for consumption of total fat and trans fats, this trend introduces health concerns because it is likely to change the overall balance of fatty acids consumed in the global diet (Wallingford et al. 2004).

Importantly, though, the increasingly integrated nature of the soybean oil market is equally likely to facilitate dietary adaptation. The increased supply of soybean oil on the world market is leading to greater competition with alternative oils, thereby providing a bottom-line incentive for increased differentiation (Beckman 2005). The process is already in evidence, with TFCs adapting soybean oil to appeal to higher-value market niches, in this case, the wealthy “health-conscious consumer” aware of the detrimental health effects of trans fats. In September 2004, Monsanto, in partnership with Cargill, announced the development of the “Vistive™” soybean (Monsanto 2007). The bean has a low linolenic acid content and thus a reduced need for partial hydrogenation, which in turn will lead to a lower trans fat content. Cargill intends to pay producers a premium for the beans, which will be passed on to food processors and eventually to consumers willing to pay more for a product free of trans fat. In October 2004, competitor DuPont, in partnership with Bunge, introduced a soybean with similar properties, “Nutrium™” (Bunge 2004). In years to come, it is possible that leading companies will compete as much on high-priced oils for health as on low prices for the mass market; the former will encourage dietary adaptation, while the latter will encourage convergence. Thus the processes driving the global market integration of vegetable oils may well have different outcomes for low- and higher-income consumers.

Foreign Direct Investment in Food Processing and Retailing

Like trade, international investment, through which companies buy, sell, and invest in companies in other countries, plays a fundamental role in integrating the global marketplace. One of the most important types of investment is foreign direct investment (FDI), defined as a long-term investment by an individual, government, or enterprise in one country into an enterprise in another. It is one of the processes through which vertical integration can take place and TFCs can grow. FDI in developing countries grew more than sixfold between 1990 and 2000—faster than either GDP or trade (Mody 2004). It is now the largest source of external financing for developing countries (UNCTAD 2000).

The global regulatory environment around FDI has become significantly more liberal in past decades.

Between 1991 and 1999, there were 1,035 changes in regulations governing FDI worldwide; 94 percent of these changes facilitated FDI by decreasing disincentives or increasing incentives (UNCTAD 2000). Many of the new regulations were forged in trade agreements and investment treaties: the number of bilateral investment treaties rose from 181 at the end of 1980 to 1,856 at the end of 1999 (UNCTAD 2000). As with trade, fewer barriers and more incentives to invest enable transnational companies to cut costs, gain market power, and obtain efficiencies in marketing and distribution. This liberalization has brought huge changes in the global agrifood system, as already shown by the case of vegetable oils.

In the 1970s, the first major phase of FDI in the food supply chain focused on producing raw commodities for export, as TFCs such as Cargill and Bunge invested abroad in oil crops and cereals for export. In the 1980s, as liberalization accelerated, FDI began to shift away from raw materials for export to processed foods for the host market, as TFCs such as PepsiCo and Nestlé invested in foreign manufacturing facilities for foods such as soft drinks, confectionary, dairy products, baked goods, and snacks.

Within the food system, food processing is now the largest recipient of FDI, and FDI is more important in the global processed foods market than trade. U.S. FDI in foreign food-processing companies grew from US\$9 billion in 1980 to US\$36 billion in 2000. Sales by those companies increased from US\$39.2 billion in 1982 to US\$150 billion in 2000 (Bolling and Somwaru 2001). Trade, by contrast, generated a relatively small US\$30 billion in processed food sales in 2000. Investments in outlets selling processed foods have also soared, especially since 1990. FDI from U.S.-based supermarket chains grew to nearly US\$13 billion in 1999, up from around US\$4 billion in 1990 (Bolling and Somwaru 2001). In 1998 U.S.-based TFCs such as McDonald's and KFC invested US\$5.7 billion in restaurants, including fast food outlets, overseas (Harris et al. 2002). Although a high proportion of this FDI is still targeted at high-income countries, an increasing proportion is entering developing and transition markets, notably in Asia, Central and Eastern Europe, and Latin America (see Hawkes 2005).

FDI is thus playing a role in the nutrition transition by shaping the processed foods market and making more processed foods available to more people (Hawkes 2005). As detailed in Hawkes (2005), FDI has made it possible to lower prices, open up new purchasing channels, optimize the effectiveness of marketing and advertising, and ultimately increase sales. The result has been a dual process of dietary convergence toward processed food consumption (albeit not among the lowest-income consumers) and dietary adaptation to a wider range of processed foods targeted at different niche markets.

This process is illustrated by the case of Mexico, where overweight and obesity increased 78 percent between 1988 and 1998, from 33 percent to 59 percent, with the greatest relative changes occurring in the poorer southern region (81 percent) compared with the wealthier north (46 percent) (Rivera et al. 2002). The North American Free Trade Agreement (NAFTA), signed by Canada, Mexico, and the United States in 1994, contained key provisions designed to facilitate foreign investment. A significant consequence of these more liberal investment rules was a rapid acceleration of FDI from the United States in Mexican food processing. In 1987 U.S. FDI in the Mexican food-processing industry was US\$210 million. By 1997, this figure had increased to US\$5 billion, three-quarters of which went into highly processed foods such as snacks (Bolling et al. 1999). FDI stimulated the growth of the processed foods market in Mexico during this period. Although few data are available on processed food consumption, between 1995 and 2003 sales of processed foods (such as soft drinks, snacks, baked goods, and dairy products) expanded by 5–10 percent per year.

During the same period, NAFTA stimulated the growth of transnational retailers. The number of chain supermarkets, discounters, and convenience stores grew from fewer than 700 in 1993 to 3,850 in 1997, and to 5,729 in 2004, to account for 55 percent of all food retailers in Mexico. Although the remaining 45 percent of food retailers—thousands of traditional, family-owned, general merchandise stores or street vendors and open markets—sell many soft drinks and snacks, they are experiencing significant competition. The amount of food purchased from *tiendas* is declining year by year as they close in the face of competition from other retailers, particularly convenience stores:

according to the Mexican Chamber of Commerce, five *tiendas* close for every convenience store that opens (Condesa Consulting 2005).

The growth of supermarkets and other modern forms of food retail stores has important long-term implications for the expansion of the processed foods sector. Over the long term, the market for processed foods grows through segmentation, which involves the development of new products targeting different market niches to activate and reactivate demand in a changing consumption environment (Wilkinson 2002). Because of their size, capital base, economies of scale in storage and distribution, and technological advancements in supply logistics, supermarkets are able to make available a far wider range of processed foods than *tiendas* and convenience stores. They can also take the risks inherent in introducing new foods and frequently update their stock to create and adapt to demand, thereby delivering the market segmentation strategy of the processed foods industry.

Delivering recent innovations in the diet foods market is a case in point. To target the more affluent, health-conscious niche, the leading supermarket, Walmex, now stocks more than 250 diet products, including low-carb chocolate and sugar-free candy, and reports that consumer spending on such products is increasing (Kelly 2005). Sales of these relatively high-priced diet foods rose by 20 percent in Mexico in 2003, a rate that is expected to continue (Latin America News Digest 2004). Yet the very same supermarkets also manage their stock to fill the lower-income, budget-conscious niche: they increase shelf space for cheaper, private label goods and “B-brands,” and they introduce smaller pack sizes, which although more expensive per unit, are more affordable because of their lower price (BMI 2005).

One of the central processes of global market integration—FDI in processed foods and in retailing—is thus facilitating not only dietary convergence toward consumption, but also adaptation to dietary niches. If this dynamic continues, the process of convergence could well lead to divergent dietary outcomes between rich and poor.

Food Advertising and Promotion

Owing to its visibility, promotional food marketing has become one of the hallmarks of globalization. Coca-Cola signs, ubiquitous in countries around

the world, are a classic symbol of what is often assumed to be the homogeneous nature of globalization. The intended impact of marketing on food consumption is also much more apparent than that of trade or FDI. Marketing explicitly involves designing strategies and implementing activities to influence consumption habits and create demand. It involves not just advertising, but a whole array of methods including sales promotions, websites, music and sports sponsorship, product placement in films and television, and in-school marketing. TFCs, and the advertising and marketing agencies that serve them, use these techniques to encourage more people to consume the product, more frequent consumption among people already familiar with the product, and consumption of more of the product at one time. Food advertising and promotion is now a global phenomenon, occurring in even remote parts of the world (Hawkes 2002). During the period 1980 to 2004, global advertising expenditures rose from US\$216 billion to US\$512 billion (Worldwatch 2004). Promotions for energy-dense, highly processed foods aggressively target young people, aiming to influence food consumption patterns that will carry into adulthood. In Western countries at least, such advertising has been shown to influence dietary habits among children (Hastings et al. 2003; McGinnis et al. 2006).

Marketing is more than just a visible and tangible form of globalization. It is also, like trade and FDI, a process of globalization. Marketing speeds the flow of food products spread by trade and FDI into the global marketplace. In a larger, more dynamic marketplace, companies benefit from rapid product turnover, and marketing speeds up this process. It does so by attracting attention to new products, creating perceived differences between similar products, and improving the apparent value and desirability of products. Marketing encourages more consumers to consume the products and more producers to produce them, thus advancing the cycle of global market exchange and integration.

It is a self-reinforcing process. Just as marketing facilitates globalization, globalization facilitates marketing. Globalization brought to the developing world the advertising and marketing agencies with the most expertise in designing marketing campaigns. From the 1980s onward, advertising agencies transnationalized and consolidated through

FDI, mergers, and acquisitions, growing into huge, vertically integrated global corporations (Leslie 1995). The process was driven by a range of incentives: the companies that commission the services of marketing agencies were transnationalizing, as were the media networks they utilize; communications technologies were improving; the market for communications services was becoming more open owing to domestic deregulation and trade agreements; and prospects of higher profits and revenue growth were greater overseas (Daniels 1995). Today, just a handful of communications networks control most of the global market. Though mainly headquartered in Europe, Japan, or the United States, networks and agencies have hundreds of local offices worldwide. An important outcome of this global consolidation was that agencies previously concerned solely with advertising bought in expertise in nonmedia advertising, market research, and communications services, allowing them to supply their clients with coordinated and comprehensive campaigns encompassing a wide range of promotional techniques (Leslie 1995). Globalization also enabled the spread of technologies that introduce more places to advertise. Television ownership spread rapidly through the developing world during the last decades of the 20th century, accompanied in the 1990s by the market liberalization of public television and a subsequent increase in commercial programming (James 2000). More recently, technological development has further broadened global communication networks, notably through the Internet and phone networks (Tharp and Jeong 2001).

The globalization of food marketing thus consists of three core components: the globalization of TFCs and the foods they promote; the globalization of advertising/marketing agencies; and the globalization of communication technologies. These components interact to increase the power of marketing as an agent of dietary change. Thailand is a good example. The advertising and promotions industry in Thailand is among the most developed, dynamic, and creative in Asia. From 1987 to 1996, advertising expenditures grew nearly 800 percent, and advertising revenues have grown in double-digit figures in recent years, standing at around Bt 85 billion (US\$2.0 billion) in 2004. Two sets of policies have contributed to this dynamism, both

related to the country's tradition of openness to trade and investment. First, foreign ownership of advertising and marketing agencies is not restricted, and although advertising is regulated to some degree, campaigns are not subject to restrictions like maximum foreign content requirements. Second, free trade agreements (such as the GATT/WTO framework and the Association of Southeast Asian Nations [ASEAN] Free Trade Area) have encouraged the influx of foreign brands (including many food brands), creating an incentive to promote differentiation between brands and products within and between domestic and multinational companies.

This relatively open market encouraged TFCs to enter Thailand and use the established network of global marketing and communications agencies to develop highly sophisticated marketing campaigns drawing on wide variety of promotional techniques. They were aided by an existing cultural context: unusually widespread television ownership (Ruangdaraganon et al. 2002; Green 2003). Even very low-income families who cannot afford to buy televisions watch it as a communal activity in cafes and food stalls.

The U.S. snack company Frito-Lay presents a good example of successful marketing (Box 1). When Frito-Lay first consolidated its presence in the country in 1999/2000, per capita snack consumption was still relatively low (1 kilogram [kg] per person per year in 1999, compared with 3kg in Mexico and 10kg in the United States). So the company developed an aggressive strategy to increase consumption, more than doubling their promotional spending between 1999 and 2003. Frito-Lay's strategy proved successful. Their share of the total snack market grew from the low single digits in the mid-1990s to 30 percent by 2003, and sales increased from Bt 885 million (US\$21.6 million) in 1997 to Bt 2,865 million (US\$70.0 million) in 2002 (Euromonitor 2005). The entry of Frito-Lay into the market also stimulated increased total snack sales. Snacks sales grew particularly rapidly during 1999–2004, the period of most intensive marketing, and sales volumes of most heavily promoted products (chips and extruded snacks) increased by the largest amount (63 percent and 69 percent, respectively).

Box 1: Examples of Frito-Lay marketing strategies in Thailand, 1999–2003

1999

- Total annual marketing budget estimated at Bt 170–180 million (US\$4.2–4.4 million) (Rungfapaisarn 1999b).
- Budgeted Bt 45 million to promote new Doritos, targeting 15- to 24-year-olds with ads featuring model and MTV VJ Sonia Cooling; distributed 2 million free samples. The promotions aim to find “mostly new customers” for Doritos rather than just switching from other brands (Jitpleecheep 1999).
- Formed marketing alliance with Major Cineplex to promote Frito-Lay products in conjunction with Star Wars I (Rungfapaisarn 1999b).

2000

- Marketing budget “at least” Bt 200 million (US\$4.8 million) (Srimalee 2000).
- Launched extruded snack brand “Tawan” in alliance with local manufacturers to compete in provincial Thailand (Rungfapaisarn 2000).
- Formed a strategic alliance with Nokia (Thailand) to target Doritos at new customers. Consumers who collected four jigsaw pieces to make up an image of a cell phone received a Nokia phone. The promotion cost Bt 40 million (*Bangkok Post* 2000).

2002

- Frito-Lay announced it would double its spending on promotional marketing to Bt 400 million (US\$10 million) (*The Nation* 2002).
- Introduced larger snack packets offering 20 percent more content but with no increase in price, and offered three packets for the price of two (Jitpleecheep 2002).
- Redesigned package for Doritos.

2003

- Launch a new flavour, “Tawan Iarb,” to appeal to “provincial consumers”; promoted it with a Bt 50 million advertising campaign featuring Thai actress singer Pornchita “Benz” Na Songkhla (Knight Ridder/Tribune Business News 2003).
- Launched Lay’s Nori seaweed, spending Bt 200 million on promotion using British-Thai actress Kathaleeya McIntosh, chosen because of her “look-good” image (*Bangkok Post* 2003; *The Nation* 2003a; Jitpleecheep 2003).
- Launched new Lay’s potato chips, Lay’s Siam Classic, spending Bt 50 million to promote the product, including TV commercials, radio spots, magazine ads, cinema ads, promotional materials such as posters, and free samples (*The Nation* 2003b).
- Aimed to “widen its customer base from teenagers to consumers aged 18–45 years” (*Bangkok Post* 2003).

Policy Issues

Transnational Food Companies Affect Dietary Change Directly and Indirectly

TFCs are key institutions driving the integration of world food markets. They produce, sell, and promote products according to incentives created by policies and economics as well as consumer behavior. TFCs affect dietary habits directly by producing, manufacturing, retailing, and promoting different foods eaten in different countries. Public attention has tended to focus on the highly processed foods manufactured by TFCs, and the example of Mexico shows that these products can be widely consumed. Yet in most countries, many highly processed foods are still consumed largely by more affluent groups in urban areas (Adair and Popkin 2005). At the moment, TFCs are probably playing a more important role in dietary change indirectly, by altering the parameters of the domestic food markets. They stimulate competition while simultaneously dominating product sectors, which alters the food market as a whole. They also create a cultural identity for different foods and introduce new ways to sell and promote them.

The Effects of Policies and Institutions Are Mediated by Existing Resources, Services, and Technologies

Existing resources, services, and technologies have a major influence on the outcomes of global and national economic policies (and, indeed, influence their design). As shown here, policies designed to promote domestic production and global consumption of Brazilian soybean oil were possible only in the context of an abundant and cheap supply of land. Policies on FDI in processed-foods manufacturing in Mexico paid off in part because of the existence of traditional forms of retailing. In Thailand globalized marketing strategies were nationally effective, in large part because of historical patterns of TV ownership.

Globalization Influences Dietary Differentiation as Well as Convergence

Globalization is often viewed as “Coca-Colonization” or “McDonaldization”—a homogeneous process with homogeneous outcomes. But this case study has shown that the dynamic, competitive forces unleashed as a result of global market inte-

gration produce both convergent and divergent dietary outcomes. The case studies show how market integration increases the incentive for TFCs to sell cheap or standardized food around the world, while simultaneously increasing the incentive to create market niches. The creation of similarity and difference is thus part and parcel of the same process—the logical functioning of the global marketplace. In dietary terms, this means that more people eat more soybean oil and processed foods, for example, but different types of people eat different types of these foods bought from different types of stores and possibly influenced by different types of marketing techniques. This convergence-divergence model unites the apparently contradictory observations that, on the one hand, global market integration homogenizes diets and, on the other, brings greater food variety.

Globalization Could Be Encouraging Different Dietary Habits for Rich and Poor

It has been argued elsewhere that the increased differentiation brought by globalization promotes better diet quality by increasing people’s access to dietary diversity (Regmi et al. 2004). The same could be said of urbanization. Following this argument, the problem of obesity becomes one of diet quantity (people eating too much of a wide variety of nutritious foods), not quality (people eating a diet dominated by nutrient-poor, energy-dense foods).

Yet the convergence-divergence duality raises the policy concern that globalization could be encouraging the uneven development of new dietary habits between rich and poor. As high-income groups in developing countries accrue the benefits of a more dynamic marketplace, lower-income groups may experience convergence toward poor-quality obesogenic diets, as has been observed in Western countries. People of low socioeconomic status (SES), although not the poorest of the poor, are more likely to be influenced over the long term by the converging trends of the global marketplace: the economic and cultural convergence toward cheap vegetable oils, trans fats, and imitations of heavily promoted products whose desirability has been stimulated by their earlier popularity among wealthier groups. Meanwhile, the more affluent and educated move on to the more expensive, “healthy market” niches such as the trans fat-free vegetable oils and “diet” foods.

The Influence of Globalization Policies on Dietary Patterns Is Context-Specific

The divergent nature of the dietary outcomes of globalization is also a result of regional, national, and local contexts. National socioeconomic bifurcation and the cultural context are particularly important (Labonte 2004). In high-income countries, the prevalence of poor-quality diets, obesity, and diet-related chronic diseases tends to be higher among groups with lower SES. Unfortunately, this trend is now also beginning to emerge in middle-income countries. A recent review of the evidence concluded that as gross national product (GNP) increases in developing countries, the burden of obesity tends to shift toward groups with lower SES. After countries have crossed over a GNP threshold of about US\$2,500 per capita, women with low SES tend to have proportionally higher rates of obesity (Monteiro et al. 2004). In other words, obesity starts out as a problem among groups with higher SES, but as national economies grow, the risk moves toward groups with lower SES. This duality feeds off of existing socioeconomic inequalities. For example, in Brazil, there is a strong inverse relationship between obesity and education in women, indicating an important association between education and nutritional knowledge (Mbuya et al. 2005). Poor diets and obesity are emerging in this socioeconomic context.

Culture is another important context. In the Brazilian case, a culture of “thinness” exists in more highly educated groups, no doubt reinforcing the role of education in this particular country context; the opposite is true in other cultures. The cultural context also affects the degree of acceptability of new products and services introduced through the globalization process, a factor that is particularly relevant for promotional activities. In an apparently contradictory process, the “glocal” marketing strategies adopted by TFCs and domestic firms often deliberately appeal to existing cultural viewpoints or traditions in order to change cultural norms and rules about what to eat, how, where, and how much (Hawkes 2002). This is the true power of marketing and indicates the importance of “cultural transition” in dietary change (Lang and Rayner 2005).

Altogether, the processes of differentiation combined with convergence, the differences between rich and poor, and the role of the socioeconomic

and cultural contexts make up a “convergence-divergence model” of dietary change rather than a simple transition.

Main Stakeholders

World Health Organization

The World Health Organization (WHO) is responsible for guiding globally coordinated action in all health matters. To provide global guidance in the area of the nutrition transition, obesity, and diet-related chronic diseases, the WHO developed a Global Strategy on Diet, Physical Activity, and Health in 2004 (WHO 2004). It is not a legally binding document, but it sets out the policy options available to countries to promote healthier diets in the context of the nutrition transition. This document follows a long history of WHO resolutions on chronic diseases (Yach et al. 2004).

National Governments

Governments are responsible for developing national health policies. Although many governments around the world are aware of the problem of chronic disease, the majority do not have comprehensive policies and budgets to develop integrated approaches to their prevention, surveillance, and control (Yach et al. 2004). Given the rapidity of the nutrition transition, governments should develop policies aiming to prevent obesity and diet-related chronic diseases and promote healthy diets, especially among lower-income groups. Such policies should include looking beyond the health sector and entering into policy arenas dealt with by other sectors and disciplines.

Transnational Food Companies

TFCs tend to dislike government regulation and favor self-regulatory approaches and the provision of incentives to change. A combination of government regulation and self-regulation is appropriate to apply pressure for change without creating a prohibitive business climate. Many of the world’s largest TFCs are now making commitments to create a healthier food environment; action is needed to ensure that these steps have measurable outcomes and are applied in both developing and developed countries.

Consumer- and Health-oriented Nongovernmental Organizations

Nongovernmental organizations (NGOs) have the advantage of a wide geographic spread and the ability to build capacity. Yet NGOs have made no overall, concerted effort to advocate solutions to the nutrition transition. NGOs should play a more important role in lobbying for specific policy actions, conducting research into consumer concerns about obesity and unhealthy diets, and tracking commitments made by TFCs and governments.

Policy Options

The role of globalization in the nutrition transition has clear implications for stakeholders' actions to address poor diets, obesity, and diet-related chronic diseases. Policies to support such action should be based on three principles. First, policies should be developed with full awareness of the influence of globalization processes and policies on long-term dietary change, and the context in which they operate. Such an awareness requires looking beyond the health sector as narrowly defined and entering into debates and policy arenas dealt with by other sectors and disciplines. Second, policies should address, in some way, the behavior of TFCs, preferably by creating incentives to improve the functioning of markets for healthy foods and disincentives for foods that contribute to unhealthy diets. Third, policies should focus on the promotion of healthy diets over the long term among groups with low SES. This case study focuses on groups with access to diets sufficient in energy, but diet quality is also important for those at risk from undernutrition. Policies that focus on diet quality are therefore important for addressing problems across the whole nutritional spectrum.

Thus far, there are few comprehensive sets of policies addressing obesity and diet-related chronic diseases in the developing world. This situation may begin to change following the passage of the World Health Organization's Global Strategy on Diet, Physical Activity, and Health in 2004 (WHO 2004). But even in high-income countries, policies still tend to focus on consumer behavior; there is reluctance to tackle the more structural drivers of change. This reluctance partly reflects misunderstandings about chronic diseases, the lack of evidence in the hands of policy makers, and the low

capacity for policy development (Yach et al. 2004). But it also reflects the fact that implementing such policies necessitates confronting the powerful forces and institutions of the global marketplace, which governments actually often want to strengthen as a means of creating wealth. This is doubly a challenge because wealth can benefit health: higher GNPs are associated with higher life expectancies. Policies are thus needed to promote *healthier* economic development.

Two commonly proposed strategies are nutrition labeling and regulation of food marketing practices (Hawkes 2004a). Labeling is probably the most widely used population-level policy and has potential: dietary adaptation shows that consumers do have real power in the modern food system and can be responsive to information. In turn, this consumer empowerment can be a powerful incentive for TFCs to change their products. Yet the benefits of policies based on the provision of information may accrue mainly to groups already more educated about nutrition, with implications for unequal dietary development.

Restricting food advertising and promotion could also alter signals to consumers and encourage product changes (Hawkes 2004b). It would have the effect of creating a more supportive environment for health promotion efforts. Equally, marketing could be used more effectively to promote healthier foods, a strategy that has delivered some success through supermarkets and other points-of-purchase (Seymour et al. 2004). The concern here is that marketing regulations must confront not only TFCs, advertising agencies, and new technologies, but also the long line of incentives in agriculture, trade, and investment behind the food entering the market in the first place. Otherwise, policies that are relatively close to the consumer, such as labeling and marketing, are worthwhile but prone to being undermined.

To alter the incentives in the global marketplace from farm to fork, policies to effect change closer to the point of production are needed. FDI is a case in point. FDI represents a single, upstream entry point to many of the dynamics influencing the production, sale, and promotion of foods in the global marketplace and thus could be an effective lever for change (Hawkes 2005).

Assignment

Your assignment is to advise a government of a middle-income developing country about appropriate policies to mitigate the negative effects of the nutrition transition in the context of globalization, taking into account the interests of the various stakeholder groups.

Additional Reading

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