
4-6

Cuba's Food-Rationing System and Alternatives

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Executive Summary

The global financial crisis of recent years has prompted a review of Cuba's economy—one of the most enduring aspects of Cuban society. Led by reform-minded President Raúl Castro, Cuba is embarking on some of the most sweeping social and economic transformations enacted since the Revolution began in 1959.

Since the announced layoff of 500,000 state workers in 2010, the government has taken a number of steps to reduce local subsidies and introduce new taxes in order to diminish the fiscal deficit. Though the economy will continue to be based on central planning, the country is privatizing and liberalizing key economic sectors. These reforms are being implemented slowly and cautiously, but they are expected to significantly affect the social, economic, and political landscape of the Caribbean nation (Perales 2011).

The economic future of the island took center stage at the last congressional meeting of the Cuban Communist Party held in April 2011 (Perales 2011). Among the proposed reforms was the discontinuation of the *libreta de abastecimiento* or family ration book. Implemented in 1962, the ration book provides Cuba's 11.2 million citizens the right to purchase a basket of basic foodstuffs at subsidized prices. The *libreta* was introduced in response to production shortages occasioned by the postrevolutionary agrarian reforms and increased food import costs attributable to the U.S. embargo (Alvarez 2004). Though the availability and allotment of rationed goods has decreased over the years, much of the population remains highly dependent on the *libreta* system, and it has long been a pillar Cuba's socialist economy.

The proposed discontinuation comes at a time of great uncertainty regarding the future of Cuba's hallmark social welfare programs. As the government seeks to scale back its near-total dominance of the economy, President Castro has given notice that the cradle-to-grave entitlements that are keystones of Cuban socialism—including free education, free health care, and subsidized electricity—can no longer be supported given current levels of productivity (Castro Ruz 2010).

In light of public dependence on subsidized foodstuffs, discontinuation of the *libreta* was overruled by the members of the Communist Party's congressional congress. Nonetheless, its proposed termination has called into question the government's ability to maintain the principals of social equity established by the revolutionary government.

Cuba's superior health indicators—highly ranked both regionally and globally—are attributed to the country's universal primary healthcare services. Having reduced national undernutrition levels to less than 5 percent among the total population, the current regime nonetheless recognizes that it can no longer support the substantial annual cost of the rationing system, estimated at US\$1 billion in 2011. On the cusp of economic transition, the question of whether to discontinue the *libreta* has become a heated policy debate (ONEI 2012; Messina 2012).

Your assignment is to suggest an appropriate food policy for the Cuban government that is both fiscally and socially responsible.

Historical Background

Prerevolutionary Cuba

Prerevolutionary era Cuba was a country of substantial wealth and severe socioeconomic inequality. After Cuba's independence from Spain in 1898, the country's economy rested on *latifundia* (large landed estate) agriculture dominated by sugarcane production¹ (Nelson 1950). These large holdings, though initially in the hands of the Cuban elite, rapidly passed to U.S. corporate owners. Less than 10 years following independence, U.S. interests controlled more than 10 percent of Cuban land; by 1926 U.S. firms controlled 63 percent of sugar

¹ A defeated Spain signed the rights to its territories, including Cuba, Guam, and Puerto Rico, over to the United States, which subsequently granted Cuba its independence. The United States stipulated, though, that it could intervene in the country's affairs if necessary (a right it later relinquished) and that it be granted a perpetual lease on its naval base at Guantánamo Bay (Gastón, Echevarría, and de la Huerta 1957).

production (Huberman and Sweezy 1960, Chapters 1 and 3).

According to the 1946 Agricultural Census, 114 farms—less than 0.1 percent of the total number—accounted for 20.1 percent of the land. Eight percent of the total number of farms accounted for 71.1 percent of the land. Conversely, small farms of less than 25 acres made up 39 percent of the total number of farms but only 3.3 percent of the land (Nelson 1950; Marrero 1978).

As is often the case with issues pertaining to Cuba, much depends upon the opinion of supporters and detractors of Fidel Castro's government. Opinions aside, although Cuba ranked as one of the most prosperous developing countries in the 1950s based on gross domestic product (GDP), social indicators for this period portray dismal social conditions, particularly among the rural peasants (Nelson 1950).²

One of the few studies on social indicators carried out before 1959 was a national survey conducted by the University Catholic Association (Agrupación Católica Universitaria, ACU) in 1956–57 (Gastón, Echevarría, and de la Huerta 1957). Besides reporting a 91 percent malnutrition rate among agricultural workers, the study concludes, "The city of Havana is living an epoch of extraordinary prosperity, while in the countryside, and especially the agricultural workers, are living in sluggish, miserable, and desperate conditions difficult to believe" (Gastón, Echevarría, and de la Huerta 1957 in Alvarez 2004, 27). Though many observers believe the malnutrition rate of 91 percent is too high, it nonetheless conveys the magnitude of rural impoverishment (Alvarez 2004; Garth 2009).

Campaigning against the inequalities between Havana and the rural interior, Fidel Castro harnessed enormous and unequivocal popular support. Forming a revolutionary army of rural *campesinos* and disgruntled urbanites, Fidel's campaign overthrew the government of Fulgencio Batista, eventually establishing the Communist Party of

Cuba as the ruling governing body in 1959 (Pérez and Everleny 2000).

Postrevolutionary Cuba

In the interest of promoting social equality, the new government expropriated most national and foreign large landholdings, including U.S. industrial properties, through the Agrarian Reform Laws of 1959 and 1963, bringing 70 percent of agricultural land under state control (Marrero 1978). In response to the nationalization of landholdings and Cuba's alignment with the Soviet Union during the Cold War, the U.S. government imposed an economic embargo in 1962.³ The embargo, coupled with lower agriculture production following agrarian reforms, led to shortages of agricultural commodities, which prompted the establishment of a food-rationing system that is the subject of this study (Domínguez 2005; Alvarez 2004).

Despite U.S. economic sanctions, Cuba achieved impressive levels of socioeconomic development until the late 1980s. Having found a political and financial ally in the socialist countries of Eastern Europe, Cuba established a robust industrial and agricultural capacity, built new infrastructure, and expanded human resource development through free universal education, raising the adult literacy rate to 97 percent (Deere, Pérez, and González 1994).

By the end of the 1980s Cuba was conducting 81 percent of its external trade with the other member countries of the Council for Mutual Economic Assistance (CMEA), which included Bulgaria, Czechoslovakia, East Germany, Hungary, Mongolia, Poland, the Soviet Union, and Vietnam. Unfortunately for Cuba, the retreat of the Soviet bloc and the subsequent breakup of the CMEA in 1991 eliminated the primary framework within which Cuba's commercial relations were operating, severely stunting the economic progress experienced throughout the 1980s (CEPAL 2000; Pérez and Everleny 2000).

² According to the 1953 census, 54.1 percent of rural homes had no toilets of any kind. Only 2.3 percent of rural homes had indoor plumbing, compared with 54.6 of urban homes. In rural areas 9.1 percent of houses had electricity compared with 87 percent of houses in urban areas. Nearly one-quarter of people 10 years of age and older could not read or write, and the unemployment rate was 25 percent (Huberman and Sweezy 1960, Chapters 1 and 3).

³ Enacted on February 3, 1962, by President Kennedy, economic sanctions were reinforced in 1992 with the Torricelli Bill prohibiting U.S. subsidiaries in other countries from trading with Cuba and again in 1996 with the Helms-Burton Act penalizing foreign companies that do business in Cuba by preventing them from doing business in the United States. The embargo remains partially in effect today (Spadoni 2003).

From 1990 to 1993, which was officially designated the "Special Period in Time of Peace," the value of Cuba's exports fell nearly 80 percent. Imports fell by 75 percent; investment, by 61 percent; and GDP, by 35 percent (Alvarez 2004).

The resulting economic crisis had a devastating impact on national food security. Cuban agriculture, which was highly dependent on chemical inputs from the Soviet Union, suddenly confronted a 50 percent reduction in fertilizer and herbicide imports. The availability of other critical inputs such as irrigation motors, agricultural tools, tractors, fuel, and spare parts also declined (Companioni et al. 2001). Food imports, which previously accounted for up to 57 percent of the caloric intake of the Cuban population, also declined because of the reduced import budget (Deere, Pérez, and González 1994).

The decline in food imports and in domestic agricultural production severely limited the availability of food. With the onset of the economic crisis, average daily per capita consumption fell from 2,835 calories in 1989 to 1,853 calories by 1994 (Pérez 2009). Some estimates show that for those most dependent on state rations—the very old and the young—consumption fell to 1,450 calories per day, 30 percent below the recommended minimum of 2,100–2,300 calories per day (Deere, Pérez, and González 1994).

The Special Period ushered in a time of scarcity and hardship. Agriculture was forced to become less dependent on inputs, which led to decreased agricultural production, restricted diets, and reduced industrial capacity. This period profoundly transformed Cuban society and the economy.

In 1993, in response to the crisis, the Cuban government began to implement an economic austerity program to address inefficiencies in the agricultural sector and food distribution system. It allowed citizens to hold and spend U.S. dollars (the currency had been made illegal following the revolution) and issued the convertible Cuban peso (CUC) in 1994 as an equivalent currency to the dollar. It opened food distribution outlets outside of the rationing system. Large state farms were converted into basic units of cooperative production (UBPCs) with usufruct rights to farm the land (Pérez and Everleny 2000).

With these market-oriented reforms Cuba's economy began to recover. Though GDP has yet to

return to pre-Special Period levels, the government has made impressive progress in restoring social services. Cuba is often referred to as a third world economy with first world health indicators, and this reputation is a result of the government's financial commitment to expanding social protection. This commitment includes continued support for a food-rationing system that is unlike any other in the world.

Food Rationing in Cuba

Food rationing was officially established in Cuba on March 12, 1962, under Law No. 1015. Introduced as part of Fidel's commitment to providing basic social services, the *libreta* came about in the changed economic landscape of the postrevolution era. Rapid growth in employment, higher wages, and decreased rents and electricity prices as a result of sectoral reforms heightened the purchasing power of a previously disenfranchised population. This increase in consumer demand was met by an initial decline in domestic agricultural production resulting from drastic agrarian reforms. The supply and demand imbalance, combined with the start of the U.S. financial embargo in 1962, prompted the new Cuban government to seek some means of ensuring adequate access to food for a highly expectant population (Domínguez 2005; FAS/USDA 2008).⁴

Since its inception, the *libreta de abastecimiento* or family ration book has been an integral part of daily Cuban life. Practically all food items were included in the initial rationing scheme. Each household was entitled to purchase a specific quantity of

⁴ Food rationing has been used by several governments to ensure food security in times of scarcity. In economics, rationing is an artificial restriction of demand used to keep prices below the equilibrium price determined by supply and demand in an unfettered market. This price-control mechanism is useful when a shortage of a given good would drive the market price up.

Food rationing was instated in England in 1940 with the onset of World War II, and in the United States soon after with the allocation of "sugar buying cards." These governments regulated the amount of commodities consumers could purchase, such as food, fuel, and clothing, though a "war rationing book" until 1946 (Bentley 2001).

Though rationing is not unique to Cuba or the communist political system, Cuba's rationing system is quite different from the temporary ration schemes that other countries have adopted in special circumstances.

rationed items depending on the number of dependent family members. At its beginning, the rationing system included not only food products, but industrial goods as well, with specific allotments of clothing, home products, and even toys for families with children. Quota setting has been a dynamic process as items have fluctuated in and out of rationing depending on production levels (Alvarez 2004).

The annual distribution of the ration booklet is the responsibility of the Consumers Register Control Office, created to keep detailed records of consumers and set distribution quotas. Household allocations made by this agency are based on consumers' age and health status, with special guarantees for children, the elderly, the chronically ill, and those with special dietary needs. Subsidized commodities can be bought at government-run distribution centers known as *bodegas* (*carnicerías* for meat and *placitas* or *puestos* for subsidized fruits and vegetables) (Alvarez 2009).

Although ration quotas have yet to return to the level of the 1980s, the government continues to subsidize a basic basket of goods including rice, beans, cooking oil, sugar, a high-protein animal product (such as pork, chicken, beef, fish, or eggs), bread, flour, coffee, and salt (Table 1).

As agricultural capacity and imports have fallen, animal products, particularly fresh cow's milk and meat, have become less available. Milk products are only guaranteed for pregnant women, children up to six years old, and the chronically ill. Children younger than 13 years old receive 1 pound of meat (either chicken or ground beef called *picadillo*) per month. Children under age 7 receive 1 kilogram of dry milk every 10 days, and children aged 7–13 receive soy yogurt instead of dairy. One kilogram of Cerelac (fortified cereal) is distributed to children aged 7–13 years and adults over age 65.

Table 1: Per Capita Allocation and Prices of Rationed Products, Havana, August 2012

| Product | Quantity | Price (pesos/unit) |
|----------------------------|-------------------|-----------------------|
| Rice (broken) | 5 pounds | 0.25 |
| Rice | 2 pounds | 0.90 |
| Beans | 0.6 pound | 1.80 |
| Sugar | 4 pounds | 0.15 |
| Coffee | 4 ounces | 4.00 |
| Cooking oil | 1 pound | 0.40 |
| Pasta | 1 pound | 1.80 |
| Whole milk powder | 1 kilogram | 2.50 |
| Soy yogurt (7–13 years) | 1 liter | 1.00 |
| Chicken | 1 pound | 0.70 |
| Eggs | 5 eggs | 0.90 |
| Salt (every 3 months) | 1 kilogram | 0.35 |
| Phosphorus supplement | 1 box | 0.40 |
| Bread (daily) | 1 bun-sized piece | 0.05 |

Source: Data from rationed retail market Calle 31, Havana Municipality Beach.

Note: The exchange rate for one Cuban peso (CUP) is US\$0.04 (US\$1 is worth 25 CUP). The average nominal salary at the end of 2011 was 455.0 CUP per month. Although this converts to US\$19, it is not necessarily a realistic conversion because wages are supplemented with subsidized goods and services including education, housing, food, transportation, and electricity (Nova-González 2012).

Until 2009, certain household items such as toothpaste and dish detergent were also subsidized. Each family received laundry soap every other month (4 pesos), a bottle of dish soap every 4 months, and a monthly quota of toothpaste depending on the number of people in the household (a family with two adults and two children received 1 tube per month). Even rum was rationed. Currently, however, these items are not delivered through the ration book. People must buy them over the counter at free market prices higher than those paid in ration stores.

People with special dietary requirements (diabetes or HIV patients) continue to receive extra rations based on their needs (Pagés 2001; Garth 2009; Messina 2012).

Social assistance programs targeting low-income or vulnerable populations have also kept food security relatively stable despite the limitations of the *libreta*. Food is freely distributed to boarding schools, day care centers, hospitals, maternity homes, and homes for the elderly (Romeu, Pérez-López, and Mesa-Lago 2011). As part of the Consumo Social program, these meals are intended to support education, public health, sports, and agricultural or military training (field schools, agricultural demonstrations, and sugar harvests), providing approximately 35 percent of the total average daily energy requirement for the country. Subsidized meals are also distributed through Alimentación Pública channels that include subsidized food sales at government-sponsored stores and free meals at workplace cafeterias. These provide approximately 6 percent of caloric consumption for the whole country (Alvarez 2004; Messina 2012).

Alternative Distribution Systems

Following the collapse of the Soviet Union, the Cuban government was unable to supply or finance the country's full caloric requirements through the ration system. In an effort to ease consumer demand on subsidized provisions, it allowed a degree of private economic activity. The authorization of self-employment in 1993, coupled with the legalization of holding U.S. currency and remittances from abroad, added new dimensions to the country's food system. As fewer products became available at government stores, various alternative agricultural markets emerged (Pérez and Everleny 2000).

Before the restructuring ushered in by the Special Period, the government had served as the primary intermediary between both private and state-owned agricultural production units and the public. The government purchased produce through the state procurement agency Acopio and redistributed food through the ration system (Nova-González 2002). The following is an overview of various distribution outlets that highlights the evolutionary nature of the rationing system.

- **Paladares.** *Paladares* are popular family-owned private restaurants that, unlike most restaurants catering to tourists, charge in Cuban pesos. In 2010 the government allowed for a substantial increase in the number of *paladares* and the number of seats they could have (more than 12) (Messina 2012).
- **Free agricultural markets (*mercados libres agropecuarios*, or MLAs).** MLAs, governed by the Ministry of Internal Trade, were designed to work under the conditions of competition where the laws of supply and demand determine prices to the population. Surplus produce beyond the production agreement between suppliers and the state procurement agency can be sold here at prices agreed upon between buyers and sellers. The main objectives of these markets, established in 1994, are to increase food production and to lower the price of food on the black market. These objectives are particularly directed toward those without access to U.S. dollars (Alvarez 2004).

Before the opening of the MLAs, black market sales were conducted almost exclusively in dollars. As a result, those without access to the CUC currency were unable to obtain food or other products through the underground economy. The MLAs not only lowered the prices of products that had previously been sold in the underground economy, but also, most important, enabled people to purchase food in pesos (Messina 2012).⁵ As of 2002,

⁵ According to Nova-González (2002), after the withdrawal of state-run farms from these markets in 1999, monopolies emerged among the private units because suppliers were able to fix prices among themselves, forming unofficial cartels for different commodities. In 2001, the state reentered the MLAs in 2001, reestablishing itself in the free market arena. Cuba's yearly minimum wage is US\$229.

there were 332 MLAs throughout Cuba, 64 of which were in Havana (Alvarez 2004).

- **Agricultural markets with fixed maximum prices** (*mercados de productos agrícolas a precios topados*). These markets, established in 1999, operate separately from MLAs and are run by the Ministry of Agriculture. These markets are intended to keep prices charged at MLAs low by charging slightly less (a small percentage of the MLA price is deducted).⁶ As of 2004, there were approximately 2,455 fixed-price markets, located primarily outside of Havana (Domínguez 2005).
- **Selling stands and *placitas* of agricultural production cooperatives (CPAs) and the youth labor army (EJTs).** These production units, operating with some autonomy from the state, can sell produce directly to consumers at prices generally lower than those of the MLAs. There are relatively few of these outlets, however, so they do not push down the prices offered at MLAs (Nova-González 2002).
- **Agricultural fairs (*ferias agropecuarias*).** These are casual markets organized by the Ministry of Agriculture on the last Sunday of every month in Havana and other regional capitals of the country. Prices offered are significantly lower than those in the other food outlets, benefiting both consumers and resellers, yet are also held infrequently enough so as to not compete with MLAs (CEPAL 2000).
- **Intensive gardens (*heurtos*) and *organipónicos*.** The economic downturn of the Special Period led to a proliferation of urban agriculture in Cuba. In response to the drastic reduction in food imports and the subsequent food shortage, the government led an initiative to rapidly transform unused urban and periurban land into small-scale, highly diversified production units.⁷

By 1997, official data on the extent of urban farming in Havana reported 92 intensive gardens, 96 *organipónicos*, and 85 state-run

suburban farms. As of 2000, there were 8,000 such gardens nationally, contributing significantly to the supply of fresh fruits and vegetables.

The fruits and vegetables produced by urban gardens are sold on site and typically cost 10 to 15 percent less than those sold at MLAs (Companioni et al. 2001)

- **Black market (*mercado subterráneo*).** Operating outside of official distribution outlets, Cuba's black market has played a substantial role in the food system since the inception of household rationing.

Products range from the homemade to the stolen or goods the state has forbidden the sale of outside of official state markets (such as beef and lobster). Black market goods also include farmers' production that bypasses official outlets and the surplus from ration distribution. Prices offered can be lower than in official markets because sellers do not pay income tax or fees for the space and services incurred at official distribution outlets (CEPAL 2000; Domínguez 2005).
- **Stores for recovering foreign currency (*tiendas recaudadoras de divisas*, or TRDs).** These stores sell mostly imported products at market prices in CUCs (and thus are very expensive for most Cuban consumers). For example, one liter of juice that costs 2 CUCs is equivalent to 50 pesos. Basic hygiene products (soap, toothpaste) and household goods are also sold here. Because such items are rarely included in the ration book, Cubans increasingly shop here. A tax is usually applied, which can bring prices up to 240 percent of the wholesale price.
- ***Imágenes*.** *Imágenes* are chain stores selling mainly processed food products as well as those found in the ration market (rice, cheese, beans, vegetable oil). Products are offered in local currency at prices slightly less than or similar to those offered by the TRDs, according to the informal rate of exchange (25 Cuban pesos per CUC) (Alvarez 2004).

Though the Special Period ushered in a diversification of distribution outlets, the prices at these alternative markets have remained high compared with the purchasing power of most Cubans, who remain largely dependent on state food subsidies.

⁶ Because of inefficiencies in the system, prices often do not parallel price fluctuations in MLAs, making fixed-price markets only minimally competitive (Alvarez 2004).

⁷ See *Sustainable Agriculture and Resistance: Transforming Food Production in Cuba* for more information about the agrarian changes and proliferation of urban agriculture following the Special Period (Funes et al. 2002)

Characteristics of the Rationing System

Distribution Inequalities

Since its inception there has been an inherent inequity in the rationing system. The province of Havana and the province of Santiago (the second-largest city) have always received more items in larger quantities than the other provinces.

This geographic inequity also characterizes the distribution of free market outlets, since most alternative food sources (MLAs, TRDs) are concentrated around Havana, limiting rural people's access to these channels (Garth 2009).

Despite distribution inequities, the ration system consistently provides the least expensive source of food for all Cubans. Additionally, while other markets are subject to price speculation, prices at ration outlets are uniform and stable.

Monthly Food Expenditures

Monthly expenditures per person on subsidized, rationed goods varies from 30 to 40 pesos according to a study by the University of Havana's Centre for Studies on the Cuban Economy (Messina 2012). Expenditures fluctuate as food and household goods are removed or added to the rationing list. It is important to note that though rationed goods supplied families' monthly basic

needs adequately until the 1980s, according to both researchers and consumers, they now only meet requirements for approximately 10–14 days a month (*Economist* 2012). As more items are removed from the *libreta* (such as peas and potatoes in 2010), consumers must go to the alternative distribution channels, where prices are likely to be higher or in CUCs.

The removal of personal and household articles from the ration book is also an important factor. Although these are nonfood products, their removal is still a burden to the family budget. With 70 percent of the average Cuban income spent on food shopping, removal of any item is significant (Alvarez 2009).

Table 2 shows estimated monthly family food expenditures. Salaried workers, especially those without access to dollars from remittances or tourism, have a hard time. With wages averaging 455 Cuban pesos a month, they can afford price-controlled goods, but they cannot afford other necessary items sold at market prices. As the government has made cutbacks, essential items have increasingly been available only at the TRDs or dollar markets. With a conversion rate of 25 Cuban pesos for every 1 CUC, items sold here are deemed too expensive for peso-earning citizens. The prices in the ration book are on average 20 times lower than in the free market (Messina 2012).

*Table 2: Estimated Monthly Family Food Expenditures
(minimum for 2008, in Cuban pesos)*

| Purchase | Per person | Total for nuclear family (four people) |
|--------------------------|-------------------|---|
| Rationed food | 34.74 | 138.98 |
| Completion of diet | 92.16 | 368.65 |
| Condiments | 38.32 | 153.24 |
| Total food costs | 165.22 | 660.87 |
| Other household expenses | 113.43 | 453.75 |
| Total | 278.65 | 1,114.62 |

Source: Alvarez 2009.

Cost of the *Libreta* System

Within Latin America, Cuba allocates the highest percentage of its state budget and GDP to social services: health care, education, social security pensions, housing, and social assistance. In 2011 the total cost of these social services represented 55 percent of total state budget expenditures and 31 percent of GDP (ONEI 2012).

According to official figures, the government spent US\$948 million on the rationed basket of goods in 2006 (Alvarez 2009). With the increasing cost of imports and heightened food prices, the *libreta* cost the government an estimated US\$1 billion in 2011, representing 4 percent of total social expenditures (*Economist* 2012).

Policy Issues

Policy formulation in Cuba must take into account the complexities of this socialist economy as well as the overarching effect of the trade embargo. This section will describe the *libreta* as it pertains to health and nutrition goals, social welfare, and exogenous issues such as demographics, unemployment, and monetary policy.

Promotion of National Health and Nutrition

Goals

The role of the *libreta* in supporting health and nutrition policies must be included in any policy formulation process.

Perhaps the most heralded success of post-revolutionary Cuba has been the improved health and nutrition status of the population, which has been largely attributed to the government's focus on social welfare and assistance. The island nation has one of the highest life expectancies in Latin America and the Caribbean and an exceptionally low infant mortality rate (4 per 1,000 live births). By 2000 per capita calorie consumption had returned to pre-Special Period levels, averaging 2,578 kilocalories a day (WHO 2012; FAS/USDA 2008).

At 10.6 percent, Cuba's share of GDP allocated to public health is one of the highest in the world. According to the World Health Organization, "Cuba's education and health system are admirable and have put the country well on the path to achievement of four of the eight Millennium Development Goals" (WHO 2012).

Beyond providing the bulk of calorie needs, the *libreta* has also functioned as an effective platform for nutrient-specific interventions. Having lowered its rates of iodine and vitamin A deficiency, Cuba is now focused on the growing prevalence of iron-deficiency anemia, which affects 56.7 percent of children under age 2 and 20.1 percent of children aged 2–5 (WHO 2012) in the eastern region.

Other nutritional interventions implemented through the rationing system include the distribution of Nestlé Celerac (a vitamin-fortified cereal) to children 7 to 13 years old and adults 65 and older. The government also guarantees the distribution of one liter per day of fortified evaporated milk for children under 12 months, as well as an enriched fruit purée provided to all children under 2 (Pérez 2009; WFP 2007). The population groups from 7 to 13 years and from 14 to 64 years have the least coverage of subsidized food.

A consumption survey conducted by Cuba's Institute of Nutrition and Food Hygiene (INHA) found that the daily iron intake provided by the food basket for children under 5 was insufficient to correct anemia deficiency. INHA's findings led to the implementation of a National Plan for the Prevention and Control of Anemia.

Concentrating on the five eastern provinces most vulnerable to food insecurity. Iron-rich food supplements are being distributed to infants aged 6–36 months and children aged 4 and 5 through the *libreta*. The system has also been used to implement a cereal-based iron-fortified food program targeting children under 5 (WFP 2007).

In a policy brief overviewing sponsored nutrition programs in Cuba, the WFP reports, "Distribution of food complements through food distribution points used for the government's general ration is the best way to reach children aged 6 months to 5 years, because only a small proportion of them attend pre-schools" (WFP 2007, 7).

Besides anemia, the growing prevalence of overweight and obesity in children and adults is becoming a public health concern (WHO 2012). National surveys have shown an upward trend in overweight. About 43 percent of the adult population is overweight; the most affected groups are people who live in urban areas and females. Overweight rates have also increased in children younger than 5 years.

Anecdotal evidence from the author's research in Cuba suggests that obesity is linked in part to socioeconomic status. Those with access to CUC are able to afford more processed foods found in the *tiendas* outside of the ration system. Additionally, a nascent fast-food industry could be to blame. With the legalization of some private enterprises came the opening of food stands and *paladares* selling pizza, fried food, and sodas in Cuban pesos.

Calories Supplied from the *Libreta*

According to the FAO, the prevalence of undernourishment in the total population has stabilized in the past decade at less than 5 percent (FAO 2012). In 2011 Cuba received an impressively low score of 5 (out of 100) on the Global Hunger Index (GHI), a multidimensional measure incorporating the proportion of undernourished in the population, the prevalence of underweight in children, and the child mortality rate (von Grebmer et al. 2012).

Because of the various distribution channels described, it is difficult to determine how much food is available under the evolving quotas of the rationing system. On average, however, the rationed food market is estimated to supply 34 percent of the population's daily calorie requirements, 32 percent of total protein, and 34 percent of fat intake (Nova-González 2006).

Although rationed food does not cover the population's full nutritional needs, there was a slight improvement between 2001 and 2005 because of measures adopted to improve Cubans' nutrition both quantitatively and qualitatively. Government-led initiatives called for increased quotas of rice production, additional tonnage of rice and beans harvested, more frequent distribution of meat products, wider and more regular delivery of soy yogurt, and increased distribution of vegetable oil. Altogether these supplies contributed to an appreciable improvement in average nutrient intakes: 31 percent more energy, 34 percent more protein, and 46 percent more fat intake. The dietary improvement experienced during this period exemplifies the direct relationship between the ration system and the population's nutritional status (Pérez 2009).

Important Policy Considerations

Reductions in Social Assistance Programs

Fiscal constraints have hampered the quality and availability of Cuba's famed social services including universal education, health care, and social security pensions. Reporting on the status of Cuba's social assistance programs for the Woodrow Wilson Institute, economist Carmelo Mesa-Lago reports, "Measuring the quality of social services is a difficult task, but abundant evidence indicates deterioration" (Romeu, Pérez-López, and Mesa-Lago 2011, 59). The disappearance of enormous subsidies from the former Soviet Union and the stunted condition of Cuba's production sector, combined with the current global financial crisis, have made it increasingly difficult for Cuba to sustain social services.

Social assistance protects various vulnerable groups including the elderly, the disabled, single mothers, pensioners with low benefits, and workers without the right to a pension. The average social assistance pension for such at-risk populations in 2002 was 40 pesos a month (enough for a 10-day supply of food rations) (Domínguez 2005).

Social security pensions for the elderly have also been subject to budget cuts. The average monthly pension in 2009 was 235 pesos (US\$10). When adjusted for inflation, this amount is 52 percent lower than in 1989 (Romeu et al. 2011).

The decline in purchasing power of social security pensions was documented in a study by Mesa-Lago (Romeu, Pérez-López, and Mesa-Lago 2011). The monthly combined cost of essential food items, transportation, electricity, telephone, and water ranged from 60 to 123 pesos (Romeu, Pérez-López, and Mesa-Lago 2011).⁸ This leaves 112 to 175 pesos

⁸According to Mesa-Lago's findings, the basket of food rations covers only the first 7 to 10 days of each month and costs 30 to 40 pesos; the monthly electricity rate is 10 to 20 pesos; bus transportation is 12 to 20 pesos (with one taxi ride costing 10 to 20 pesos); telephone and water rates range from 8 to 10 pesos. Most of the population owns their own dwelling, but a minority pays an average rent of 33 pesos.

Some foodstuffs and products are not included in the ration cards. One pound of beef, half a pound of both chicken and fish, four pounds of rice, two pounds of vegetables, two onions, one bottle of soy oil, and four eggs cost 213 pesos per month, or 90 to 121 percent of the remaining average pension. The essential hygiene

to meet food needs for the rest of the month in the MLAs and hard-currency shops (TRDs or *imagenes*). If one includes the cost of personal hygiene products, the ability of most pensioners to cover basic food costs is severely constrained. Further reductions in the food ration allocations would clearly diminish purchasing power for pensioners.

Another state-supported food program with nutritional implications is the worker's canteen program. For years the majority of Cubans have been given free meals at state-run workplace canteens. Cuban authorities have stated, however, that they can no longer afford the US\$350 million spent annually on the scheme. In 2009 four government ministries closed all their free lunchrooms across the country. Instead, they added an extra 15 pesos (US\$0.60) a day to workers' salaries so workers can buy their own meals. If this trial is successful, then all such workplace canteens could be abolished. Prior to this cutback, the state provided about 3.5 million free lunches a day (*Economist* 2009).

Demographic Changes

Food policy will have to address the changes inherent in an increasing urban population, estimated to be about 80 percent of the total population. Additionally, by 2025, about one-fourth of the Cuban population will be elderly. Cuba has the second-oldest population in Latin America, after Uruguay, and one of the lowest fertility rates (FAS/USDA 2008; FAO 2012).

The increasing number of elderly and retirees portends greater demands on the *libreta* system, demands that will become more difficult to meet as the dependency ratio of contributing workers to pensioners declines.

Unemployment

As part of economic reforms, Raúl Castro began a process of laying off 500,000 state workers in September 2010. These workers will now be able to work independently in one of 168 jobs approved for self-employment or join one of the foreign

companies gradually entering Cuba's private sector. These liberalization measures are meant to decrease dependence on the state and to generate additional government revenue (Romeu, Pérez-López, and Mesa-Lago 2011).

This plan was envisioned as an opening for entrepreneurship in a country where the state employs more than 90 percent of all workers and controls virtually all means of production (Messina 2012). The available evidence suggests, however, that reforms encouraging taxable self-employment cannot be expected to generate enough jobs to make up for the loss of income that workers previously derived from state employment (Romeu, Pérez-López, and Mesa-Lago 2011). About two-thirds of the 171,000 new business licenses granted so far have gone to people who were already out of work, suggesting that the vast reforms may not be enough of a safety net for the half-million people who are expected to soon be out of a government job (*Economist* 2012). It is therefore unlikely that this initiative will diminish the demand on the *libreta* system.

Monetary Policy

There are currently three currencies circulating in Cuba: the U.S. dollar, the Cuban peso (CUP or MN *moneida nacional*), and the convertible Cuban peso (CUC). Though the U.S. currency is not officially accepted, it circulates and is sent as remittances from abroad. This situation has supported the development of a two-class system divided between those with access to CUCs or U.S. dollars and those without. Those without are those primarily dependent on the rationing system, who will be most vulnerable as more goods are removed from the rationed food basket.

The government recognizes that the four-year-old system of officially circulating both the CUC and the MN widens social divides. Officials vow to end the program once foreign reserves spike—a growing challenge as import prices rise. According to economists, the trickiest economic reform facing the government will be unifying the two currencies by devaluing the CUC and revaluing the peso.⁹

articles in a TRD—a bar of soap, a bag of laundry detergent, and a stick of deodorant—cost 84 pesos, 48 to 75 percent of the remaining average pension not calculating food cost. One pound of ham is tantamount to the minimum pension, and an energy-saving light bulb purchased in a TRD costs half the minimum pension (Romeu, Pérez-López, and Mesa-Lago 2011).

⁹ Excerpt from *The Economist* special report on Cuba's changing economy (2012):

Cuba's growing social inequalities are symbolized by the dual currency system introduced in the Special Period. The "convertible peso" or CUC, is now fixed at par with the dollar. The ordinary Cuban peso is theoretically worth the same as the CUC,

Import Dependence

Cuba currently imports 80 percent of its domestic food requirements, including 60 percent of the main staple, rice (ONEI 2012).

In recent years, about three quarters of Cuba's imports of consumer goods have consisted of foodstuffs, in no small measure because of the poor performance of the agricultural sector. These imports include a range of food products that could be produced domestically such as rice, milk, chicken, beef, and beans (Romeu, Pérez-López, and Mesa-Lago 2011).

Because it is highly dependent on food imports, Cuba is particularly vulnerable in terms of food security. As explained by José Graziano da Silva, the director general of the Food and Agriculture Organization of the United Nations (FAO), "High prices intensify the food security risks of net food-importing countries and reduce access to food for the poorer members of society." The new highs reached by domestic food prices, up 20 percent in 2011, and the persistent volatility of the international market have put at risk Cuba's progress in eliminating hunger and infant malnutrition (Graziano da Silva 2012). The *libreta* has served as a price buffer, significantly protecting consumers from the increases and fluctuations of international food prices.

With its chronic trade deficits and continuing economic difficulties, there is some question regarding whether Cuba will be able to sustain the level of food imports seen in recent years. This is an especially important and pressing issue for the Cuban government (Messina 2012).

The government has taken a number of measures to increase food production, including allocating fallow land to private individuals and groups, reducing the amount of land devoted to sugarcane cultivation, and issuing microcredits to some farmers to help them purchase equipment in authorized stores (Gramma 2010).

The question of whether Cuba could pursue a successful agricultural import substitution program is

but that is an accounting fiction. In fact the peso is pegged 24 to the CUC. The CUC is used for foreign trade and tourism. Wages and the prices of basic goods in the domestic economy are set in pesos. The average monthly wage is 454 pesos, or US\$19.

perhaps best left to another case study. In the short term this is unlikely.

Embargo

The Cuban government has very little influence on the embargo policy imposed by the United States. Nonetheless the embargo does have implications for the Cuban economy.

According to a report submitted by the Cuban government to the United Nations in 2000, it costs US\$38 million more to purchase food as a result of price differentials between U.S. and alternative markets. Overall, Cuba spent US\$50 million to finance food imports that would have cost no more than US\$19 million had they come from the United States (Alvarez 2004).

During the Clinton administration, under pressure from U.S. agricultural interests, the embargo was relaxed.¹⁰ Interestingly, despite the embargo, the United States has since 2003 been the main supplier of food and agricultural products to Cuba, exporting up to US\$960 million worth of food (*Economist* 2012).

It is important to keep in mind that food sales to Cuba are still performed under difficult market conditions. First, this is a one-way trade relationship, as Cuba cannot export to the United States. It thus loses potential export earnings from high-value commodities including tobacco, rum, sugar, vegetables, and tropical fruits, among others. Cuba must pay in advance and in U.S. dollars for all imports because access to credit is prohibited. In addition, the embargo extends to relations with third-party countries: financial sanctions are imposed against countries that maintain trade relations with Cuba, and other countries cannot sell products with Cuban-sourced components (such as nickel and sugar) to the United States.

Stakeholders

People who support the *libreta* argue that although it is expensive, food rationing has contributed to national resilience in times of economic hardship. People who oppose rationing cite the expense and argue that it disincentivizes individual effort. "Cuba is the only country where you can live and do not

¹⁰ The Trade Sanctions Reform and Export Enhancement Act was passed by the Congress in October 2000 and signed by President Bill Clinton.

have to work," announced President Raúl Castro to the National Assembly of the Popular Power in 2010 (Romeu, Pérez-López, and Mesa-Lago 2011).

Cutbacks in state subsidies over the past year, particularly in the ration cards, have already increased the cost of living. Hit especially hard have been retirees, the disabled, widows and others who live on fixed incomes, and the 40 percent of Cubans who do not receive remittances from relatives abroad.

The United Nations Development Assistance Framework (UNDAF) indicates that children under age 5, elderly people, pregnant and lactating women, and handicapped people are Cuba's most vulnerable groups (WFP 2012).

The unemployed and underemployed also stand to be further marginalized by reductions in the *libreta*. The economic adjustments outlined in the 2010 guidelines meant to create sources of employment are not enough to absorb the already unemployed or underemployed, which represented 30 percent of the employed workforce as of June 2012 (Nova-González 2012). Reductions in public sector employment with no immediate prospect of wage increases could put many Cubans in a vulnerable position if subsidized rations are restricted, especially considering the rise in international food prices.

The Cuban people have come to believe that the social contract with their government entitles them access to affordable food. The provision of adequate food is especially linked to government legitimacy. For example, food shortages following the collapse of the Soviet Union are considered in part responsible for a maritime emigration crisis in 1994, with thousands of Cubans fleeing to Miami (FAS/USDA 2008).

Policy Options

Discontinue Rationing

Though voted down by the national congress, the decision to eliminate the *libreta* is a potential policy position that Cuba could pursue. It is, however, an option that may be fraught with destabilizing social consequences, particularly if one considers that the most basic food, hygiene, and household items will be available only in CUCs (a 2 CUC pork steak costs 40 Cuban pesos per pound, or 8 percent of the average 455-peso monthly salary).

Discontinue Rationing but Increase Social Assistance

The amount of money allocated to social assistance programs has been cut as part of the economic austerity measures. One option is to eliminate rationing but direct additional funds to social security pensions and social assistance payments, thereby increasing the purchasing power of the elderly and targeting the most vulnerable groups. An example of such a policy can be found in the 2009 measure that increased workers' wages when canteen lunch privileges were terminated.

Targeted Rationed Programs

Targeted food-rationing subsidies can be focused regionally or on specific income groups. One option involves keeping the *libreta* but refining the eligibility criteria such that only those below a certain income level could receive subsidized food rations. This approach would help vulnerable groups who stand to be most marginalized by the complete elimination of food rationing. Beneficiaries would have access to some sort of food stamp or voucher that would be accepted at food distribution outlets, such as MLAs and the *organipónicos*.

Another option is to focus on regional distribution, limiting rationing to particular regions with evidence of low income or nutrient deficiencies. This policy measure could respond to the reported food insecurity and nutrient deficiencies affecting the rural eastern regions of Cuba, encompassing the provinces of Guantánamo, Granma, Santiago de Cuba, Las Tunas, Holguín, and Camagüey (WHO 2012).

Untargeted Ration Programs

Instead of targeting specific groups, an untargeted option could be used to lower open-market prices. While the *libreta* would be eliminated, a certain proportion of government expenditures would continue to be used to finance the import of certain staple foods (such as rice, wheat, or milk) that are released into the open market. This approach would reduce the prices of imported products, in effect driving down domestic prices.

An example of an untargeted food subsidy can be found in alternative distribution policies used in India and described in a report by Binswanger and Quizon (1984). The government used US\$1.1 billion to finance the import of almost 7 million tons of

wheat, which were released in the open market. One trial of this program was financed by aid to the Indian government, and another through an 8.5 percent tax on nonagricultural commodities. Both scenarios reduced the price of wheat by about 60 percent. This decline most benefited the urban poor, whose real incomes rose 18 percent. Additionally, the rural poor, despite a loss in wages from lower agricultural prices, benefited from a 4–5 percent increase in real income (Binswanger and Quizon 1984).

Owing to provisions of the economic blockade, Cuba is not able to be a member of the International Monetary Fund or World Bank. Aid is therefore hard to come by. Imports would need to be financed primarily through a tax on nonagricultural commodities or through the recently imposed taxes on new private enterprise.

This untargeted rationing option could raise real incomes, particularly helping urban and rural poor, who spend most of their income on food.

Supply-Oriented Interventions

To reduce import dependence, Cuba could implement additional policies to increase domestic supply. Intervention options include irrigation improvement, fertilizer subsidies, or enhanced technical inputs (equipment, storage capacity, transport). All increased production made feasible by such technical changes could be used to reduce imports. This policy could increase aggregate agricultural output and, when domestic production is channeled to domestic markets and not to export markets, could reduce prices.

In addition to making the needed investments, Cuba could eliminate a number of restrictions and regulations along the supply chain that hinder an increase in production.

Supporting Existing Alternative Outlets

Reducing taxes on MLAs and *paladares* and allowing for more agricultural fairs or selling stands of CPAs could help lower prices. Despite the establishment of MLAs during the Special Period, the government has continued to play a heavy-handed role in the distribution and pricing of food. Evidence suggests that this failure to sufficiently liberalize agricultural markets has led to inefficiencies that affect agricultural production and restrain economic growth (*Granma* 2006; Romeu, Pérez-López, and Mesa-Lago 2011; Messina 2012).

Assignment

Your assignment is to suggest an appropriate food policy for the Cuban government that is both fiscally and socially responsible.

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