THE CUBAN ECONOMY IN A WORLD OF UNCERTAINTY

Joaquín P. Pujol

In 2008, I presented a paper at ASCE's annual meeting titled "Economic Challenges facing the Cuban Authorities." On that occasion I identified twelve economic policy areas where the Cuban authorities were facing their most pressing challenges, indicated some actions that they had either announced or taken, and sought to evaluate the likelihood that these actions would likely have a significant impact on these challenges. The twelve areas related to the need to:

- raise the low productivity of the workers and of the economy at large;
- increase domestic food production so as to be able to feed the population without undue dependence on imports;
- 3. provide adequate housing to the population;
- 4. take care of an aging population and reverse the emigration of young people;
- 5. provide adequate transportation;
- 6. reduce dependence on foreign oil;
- 7. repair and replace a deteriorated infrastructure (factories, roads, railroads, sewerage systems, etc);
- eliminate the economic distortions brought about by the multiple currency system, the artificial and arbitrary exchange rate, and the indiscriminate subsidies arising from the operation of the "libreta de racionamiento";
- 9. restore the quality of medical services and education:
- 10. reduce the balance of payments deficit and improve the credit worthiness of the Cuban economy in international markets;
- 11. liberalize the labor market, including by allowing widespread development of self employment activities ("actividades por cuenta propia") and the

- establishment of small and medium sized private enterprises; and
- 12. establish a clearly defined legal framework that is consistently applied by the authorities, and well known and respected by the population.

One year later, the economic situation has further deteriorated due to the failure to make significant reforms in most areas, the destruction resulting from the hurricanes that ravaged the island in 2008, and the impact of the global financial and economic crisis on the Cuban economy. The latter has not only worsened the terms of trade facing Cuba because of the rise in the prices of food imports and the decline in the price of nickel exports, but has further reduced the limited access that Cuba had to international credits.

In mid-2009, the government lowered the official growth projections of Cuba's national product for 2009 from 6% to 2.5%, although some economists in the island think that there will be no positive growth all in 2009 and that the economy could even shrink somewhat. The Economy and Planning Ministry forecast was drawn up within two months of President Raúl Castro's replacement—in March 2009—of Cuba's entire economic leadership team after a dismal 2008 performance.

After half a century of relying on external subsidies, first from the Soviet Union and then from Venezuela, and on not paying back the credits contracted abroad, the authorities have finally admitted the gravity of the economic panorama facing the Cuban economy. However, as in the past, government officials refuse to take responsibility for the economic performance debacle and instead blame the U.S. embargo, the destruction caused by the hurricanes, and the impact of the

international depression for the dismal economic conditions.

The extent of the economic crisis has reached the point where some economists argue that the Cuban economy is near bankruptcy. Even government officials realize that it is impossible to sustain an economic scenario where imports are equivalent to four times the value of exports, as was experienced in the first few months of 2009. The lack of international liquidity is affecting all areas of the economy and the discontent of the population in the island is growing to the point of serious political concern.

The government has implemented energy savings measures, cut social spending, and adopted other measures in 2009 to cope with the growing liquidity crunch. At the same time, creditors have been asked to restructure debts, and the bank accounts of hundreds of suppliers and other foreign companies in state-run banks have been blocked since January. The symptoms of the ongoing economic crisis, aggravated by the international depression, can be seen in factories operating at half time or completely paralyzed, reduction of the number and quantity of goods available under the rationing cards (including such basic products as rice, beans, salt, etc.), the renewal of cuts in electricity distribution ("apagones"), and the inability to make payments on foreign credits.

The alarm was sounded earlier in the year when the Minister of Economy revealed that between January and April 2009, the consumption of imported oil had exceeded targets by 40,000 tons and that these volumes of consumption were unsustainable. In June, the watch-word became "Save or Die," as instructions were given to the population to reduce energy consumption by at least 10% throughout the economy. To achieve this, state enterprises were assigned upper limits on the energy that they could use and all kinds of activities were curtailed. Those consumers that failed to meet the cuts were to be severely sanctioned, including a complete cut in their access to electricity.

In this paper I review recent developments with respect to the economic policy challenges identified in the 2008 paper and seek to draw some implications for the immediate future, focusing on three sources of uncertainty: (1) internal economic developments and po-

litical reforms; (2) the impact of the global financial and economic crisis, and (3) U.S. policy toward Cuba.

LOW PRODUCTIVITY

Very low productivity in practically all economic activities continues to be an endemic problem in Cuba. Between 2000 and 2007, according to the *Anuario Estadístico de Cuba*, average nominal salaries increased by almost twice as much as productivity, but real salaries declined. So far, none of the measures that have been implemented seem to have had much impact on increasing productivity.

In the past, the government has utilized popular mobilizations as a way to help meet some of the production needs of the country. This has been done again recently through the mobilization of large numbers of young people to harvest crops. But this is a highly inefficient procedure that shifts resources from other activities in order to achieve short-term goals and results in wasted time and effort.

A major reform of salaries, including the elimination of ceilings on salaries and the establishment of new forms of payments depending on the characteristics of the state enterprises, the type of work, and the quantity and quality of the output, had been announced. The new practices were supposed to be implemented starting in January 2009, but the reform has gotten bogged down by bureaucratic considerations and administrative resistance. Some managers are concerned that under the new scheme, some workers may end up getting higher pay than their bosses.

In February 2009 the Ministry of Labor enacted Resolution No. 9, which sought to establish a direct link between salaries paid and the resulting work, not only in terms of quantity produced but also taking into account quality. Up to then, salaries had been set in relation to global indicators, such the volume of sales, revenues, or profits of state enterprises, while seeking at the same time to maintain as much uniformity of pay among workers as possible, and always with salaries in each activity subject to an overall ceiling. In theory, the purpose of the new regulations is to introduce greater flexibility in the salary structure and create incentives that would increase production and productivity. In the first quarter of 2009, the new methods had been applied to under 25% of the labor force and had failed

to show significant improvements in productivity. The President of the Association of Cuban Economists, Roberto Verrier, blames the lack of proper organization and of worker motivation for the non-implementation of the reform. The implementation of the salary reform has also been complicated by the existence of a dual monetary system that makes it very difficult to measure the real costs of production, establish the prices to charge for products and compare salaries actually paid to various workers. Elimination of the dual currency system would almost be a prerequisite to be able to improve accountability and to raise productivity in many activities.

Moreover, as a consequence of the global economic crisis, Cuba has seen an increase in the prices of its imports and a decline in the prices of some of its exports. In addition, the country's access to international credit has been further reduced because of the poor credit record of the country. As a result, some Cuban factories have shut down and output cut back at other workplaces. This has further reduced productivity of the economy.

The state-run newspaper *Juventud Rebelde* has reported that a tire factory shut down in February due to a lack of raw materials (rubber) imports, while an aluminum packaging plant had to cut output for similar reasons. Workers at lobster processing plants, cigar rolling factories and other establishments have reported layoffs for several months. Other workplaces were having difficulty obtaining spare parts, and still others were being forced to scale back output after a recent government measure mandating a 12% reduction in power consumption. *Juventud Rebelde* reported that the shutdowns were examples of a wider problem "in other sectors of the Cuban state enterprise sector," which encompasses 90% of economic activity.

In a further attempt to get workers to work and to improve production and productivity, on June 26, 2009, the government issued Decree No 268 authorizing Cubans to hold more than one job. The Government calls this concept "pluri-employment," explaining that "workers, after fulfilling the duties of the post they normally hold, may enter into more than one work contract and receive the corresponding salary." According to the authorities, "pluri-employment" is in-

tended "to attenuate the effects of an aging population, stimulate work and provide opportunities for workers to increase their income."

In addition, the City of Havana has been empowered to hire workers who live in other provinces "to cover its work needs on a temporary or permanent basis," in order "to stimulate the productive forces, make possible an increase in income" and enable "work to be the principal source of satisfaction for [Cubans'] material and spiritual needs." (In the past the authorities have forbidden workers to move from one location to another within the island and have forcibly returned workers to their home towns.)

The average monthly salary in Cuba is 415 pesos, about US\$19. While the Cuban government subsidizes some food products and provides education and health care at no cost, the salary is not sufficient for most wage earners to meet their daily needs and many young people refuse to take government jobs because they consider the pay insufficient to sustain living standards and find the working conditions inadequate. As a consequence they prefer to try to earn a living by engaging in private activities that are considered illegal by the government or try to leave the country. Workers that do accept government jobs many times use their positions to steal goods and materials from the state enterprises that they can then sell in the black market.

INSUFFICIENT FOOD PRODUCTION

Despite having a large endowment of agricultural land, Cuba continues to import more than 80% of its food needs, spending about US\$2,800 million for this purpose. Commodity exports totaled \$4 billion in 2008, while imports increased 41% to \$15.4 billion, leaving a deficit in external commodity trade of \$11.4 billion, according to the National Statistics Office. This situation has worsened significantly in the first months of 2009 as the price of imports rose while domestic agricultural production continued to decline. It will take much more than the modest steps taken by the authorities so far to be able to increase food production.

Domestic food production has been declining for the past three years, even before the hurricanes hit Cuba. The production of tubers (like cassava, sweet potatoes and "malanga"), a staple crucial to the Cuban diet,

reached only 2.15 millions of tons in 2008, compared to 2.37 millions of tons in 2007. Meanwhile, 2.4 million tons of green vegetables were harvested in 2008, compared to 2.6 million tons in 2007 and 3.9 million tons in 2003. The volume of bananas produced in 2008 was 758,000 tons, compared with 990,000 tons in 2007 and 1.1 million tons in 2003 (a drop of 30%); non-citrus fruits reached only 738,500 tons in 2008, compared with 807,170 tons the year before; citrus reached 391,800 tons in 2008, compared with 469,000 tons in 2007 and 792,700 in 2003 (a drop of almost 50 %). Cuba produced only 1.42 million tons of sugar in 2008, and estimates indicate that sugar production in 2009 will be around 1.3 million tons. These declining trends have continued in the first few months of 2009 despite the actions taken by the authorities described below to increase food production.

A decree enacted in 2008 gave individual farmers the possibility of leasing parcels of up to 26.8 hectares of fallow land. In June 2009, Adolfo Rodríguez Nodal, Chief of the National Program for Urban Agriculture, clarified that the access to this land is not a form of privatization, as the land continues to belong to the State and has to be used according to what the State determines. He pointed out that these new farmers could create Cooperatives of Credit and Services to assist them in obtaining necessary inputs and access to services. According to Vice Minister of Agriculture Alcides López, about 100,000 requests for use of idle lands have been recorded, but so far only 36% of the requests have resulted in land being turned over and only with respect to 20% of the requests is the land being exploited. The question remains whether there will be sufficient agricultural inputs available for farmers to be able to produce in these lands. There have been reports of irregularities in the distribution of fallow land and new farmers have complained about failure and / or delays to receive payments for their crops as well as about the lack of equipment and seeds. They even have had a hard time getting proper farm clothing and work boots—as most of these items are only available in stores that sell goods in hard currency.

Close to 1.2 million hectares of the island's land have been poorly maintained over the years and have become covered by *marabú*, a thorny wild bush that

spreads easily does not have any productive use. Of the lands covered by *marabú*, 88% belong to the State, 10% to cooperatives, and only 1% to private farmers.

Some experts fear that the current global economic crisis will hamper the implementation of the reforms that had been announced in the agricultural sector because of the new emphasis on energy savings and the lack of availability of needed inputs. These reforms were expected to encompass an administrative decentralization, the delegation of the planning and implementation of many decisions to the municipal level, the distribution of idle land to individual farmers, the availability of inputs and other equipment needed by these farmers, and an improvement in the prices paid to farmers for some of their products.

The authorities recently announced that in August 2009 a new system of commercialization will be introduced to seek to minimize losses due to unavailability of inputs and delays in the commercialization by state intermediaries. Under this reorganization, the responsibility for commercialization will be shifted from the Agriculture Ministry to the Ministry of Domestic Trade. However, some have questioned the merit of such a shift, pointing out that as long as farmers are not allowed to sell directly to consumers, the bureaucracy will bring about delays and added costs to any transaction and will discourage production. According to the newspaper Juventud Rebelde, under the proposed reform, 23 state-run companies in the provinces of Havana and Havana City will deal directly with individual farm producers and cooperatives, providing them with the necessary capital, transportation and containers. The farmers can then arrange for the collection of their own produce and its delivery to wholesalers. Today, farmers must depend on the collection and distribution facilities of the ministry, which are undependable, inefficient and insufficient, according to most accounts. As an incentive, farm workers will be paid a bonus of 16 U.S. cents for every 100 pounds of produce they deliver to the wholesalers. In addition, the Ministry of Domestic Trade disclosed that the 142 state-run food markets that operate in Havana City will grow to 310 by year's end, to 450 in 2010 and 600 in 2011, to better satisfy shoppers' demand and to ensure greater distribution of farm goods. In addition,

the government will authorize "small processing industries" to can and sell outdated produce.

The results of the first few months of 2009 have not been very reassuring, as agricultural production remained very unstable and there were shortages across a wide range of agricultural products. Agricultural production fell 7.3% in the first half of the year with respect to 2008; output of bananas dropped 61%; citrus, 45%; pork meat, 33%; poultry, 28%. While there were some reported increases of tomatoes and potatoes, the availability of eggs and meat, particularly pork, items of great weight in the diet of ordinary Cubans, was down. (Even for some items, like potatoes, which had been reported to have experienced a bumper crop, there was little available for sale to consumers in the state stores.). Tons of tomatoes, onions, beets, sweet potatoes, carrots, and even mangoes or bananas, have been lost due to incapacity to harvest them, store them or processes them into preserves.

One of the consequences of the current crisis is that the government has implemented cuts in the rations of commodities subject to the rationing system.¹ An official note by the Ministry of Domestic Trade, posted recently in every grocery store, states that the quotas of beans and peas, each set at 20 ounces per family member per month, have been cut to 10 ounces, while the salt quota—2 kilograms every three months for a 3–to-4–member family—has been reduced to 1 kilogram. Black beans can be purchased in farmers' markets for 10 ordinary pesos (US 38 cents) per pound and kidney beans for 12 pesos (US 45 cents) per pound, but salt is sold only in convertible-peso stores, for the equivalent of US 70 cents per kilogram.

INADEQUATE HOUSING

Poor and insufficient housing is still one of the major problems affecting the Cuban population. In the 1990s, construction was practically stopped, except for special programs like building hotels and condominiums for foreigners that would bring some desperately needed dollars into the country. Once construction picked up again in the mid-1990s, social housing was limited to programs for workers of key industries or agencies, with priority going to finishing buildings that had been halted in the early 1990s and to meeting the needs of people living in shelters. Since then the government has not been able to meet its own yearly targets for housing construction, leaving a lot of projects without being completed.

Even before the destruction from the hurricanes that hit the island in 2008, the housing deficit was estimated at 600,000, a deficit that grew every year as the government was not capable of meeting its target for new housing construction. It is estimated that the hurricanes damaged or destroyed some one million residences and the efforts to repair and replace them have fallen below targets. There are growing complaints about the lack of progress in the repair of houses damaged by the hurricanes and on the persecution by the authorities of individuals that try to obtain construction materials in the black market to undertake their own repairs. In the city of Havana alone it has been estimated that there are currently over 8,000 residences in peril of collapse. Recently the authorities announced that the goal for new housing construction for 2009 had to be cut back because of problems in obtaining the necessary materials and lack of qualified personnel to carry out the construction.

The authorities continue to forbid Cuban citizens from owning and freely disposing (rent, sell, exchange and/or mortgage) the houses that they occupy without prior government authorization. Thus there is little incentive by residents to repair and improve these facilities. Moreover, the availability of paint and other maintenance materials is quite limited and expensive and mostly has to be obtained through the black mar-

^{1.} Rationing cards have been in place in Cuba since 1962. The card allows each person to buy at subsidized prices certain amounts of rice, sugar, beans, chickpeas, cooking oil, eggs, some protein (either chicken or minced meat mixed with soy), tooth paste, soap and a few other products, to the extent that they become available at the neighborhood state-run grocery stores. It is estimated that the amounts of food provided may be sufficient to cover some 10 to 12 days out of the month, and they need to be complemented with vegetables, meat and condiments that have to be bought in the so-called "free agricultural markets" or in State stores at much higher prices, where consumers have to pay in hard currency (dollars, Euros or Cuban convertible pesos). Purchases of items for personal hygiene, clothes, shoes and/or electronics, etc., typically also have to be purchases in hard currency stores.

ket. Thus, the housing problem is likely to continue to grow unless there is a fundamental change in the legal system that gives appropriate incentives to the dwellers and a substantial increase in the availability of construction materials that allows for the needed repairs to be undertaken.

AGING POPULATION AND MIGRATION OF YOUNG PEOPLE

The population of Cuba, which at the end of 2008 had been estimated at 11.24 million, is projected to fall once again during 2009. This continuous decline is mostly due to the low fertility of the population combined with emigration of the young. By 2025 it is expected that the population over 60 years of age will reach 2.9 million, 1 million more than currently. This means that every year the ratio of working population to consuming population is declining and will continue to do so unless there is a significant reversal in the demographic patterns.

According to press reports, in the last four years 135,000 Cubans have emigrated from the island. Moreover, the Spanish Consulate has recently registered some 150,000 requests for Spanish citizenship from Cubans of Spanish descent under the Spanish Law of Historical Memory (known as the Law of Grandchildren) that allows grandchildren of Spanish citizens to receive a Spanish citizenship. The Spanish Consulate in Havana has been processing some 325 of these requests per day. In May 2009 alone, 2,800 requests were approved. The requests for Spanish citizenship from all regions (not only Cuba) are so numerous that the Secretary of State for Migratory Matters has indicated that Spain may extend the period for processing requests for another year beyond the original two-year period established in the law.

Young people in Cuba currently do not have expectations for a better future. This, together with the difficult housing conditions, has brought about a sharp drop in the desire to have children. Most Cuban youth see emigration as their only hope for a better life. Given their lack of economic and political freedom they choose to vote with their feet. As long as the regime insists on trying to control all activities and the young people find that there are no incentives for them, the current tendencies will not change

POOR TRANSPORTATION

The availability of adequate transportation is still a very serious problem that affects production and productivity throughout the island. The transport sector was one of the most severely affected in the 1990s by the collapse of the Soviet Union and only recently started a slow process of recuperation with the importation of new buses, locomotives and railroad wagons. The international crisis has forced the slowing down the import of transportation equipment and in some cases, such as urban transportation in the capital city of Havana, the negative impact has been significant, The number of passengers transported by public buses daily, which in the 1980s had reached 4 million, dropped to less that half a million in the 1990s and only recently had climbed back to one million.

To try to cope with the dismal state of the transportation system, the authorities had been importing buses from China and Russia. Some 500 buses had been imported from China and recently the Russian GAZ enterprise announced that it would send up to 200 minibuses destined to various public enterprises throughout the island to be arriving in the last quarter of 2009. GAZ has been supplying between 150 and 200 vehicles per year since 2004. But the restrictions of petroleum consumption have affected the timetables and availability of public transportation and the poor conditions of the roads has resulted in breakeges of equipment which does not come back into circulation because of lack of parts and poor maintenance. Moreover, those kept in circulation have been operating without air conditioning at a time when the summer heat is the highest, to great discomfort of the population.

The volume of imported freight diminished by 10% in the first quarter of the year due to the impact of the world economic crisis. Currently Cuba has only three of its 15 commercial ports working in a stable manner because of the drop in ships and merchandise coming in.

The Director of the Cuban Railroads, Pedro Ortega, has pointed out that the long distance trains also have had to cut down the frequency of their service and that the cutback is even greater for the services between small towns.

Meanwhile, the government has intensified the persecution of private taxis, which are considered illegal. People found to engage in this kind of activity are subjected to very high fines and even prison sentences.

DEPENDENCE ON FOREIGN OIL

Cuba consumes at least 150,000 barrels per day (bpd) of oil and oil products, of which about 62% come from regional energy giant Venezuela. The rest is domestically produced, extracted from the northwest coast along with natural gas and is used primarily for electricity generation.

Venezuela's state-run Petróleos de Venezuela SA (PDVSA) reported that it delivered 115,000 bpd of crude and refined products to Cuba in 2008, of which 93,300 bpd were sold to Cuban state-run oil monopoly Cubapetróleo, or Cupet, and 27,500 bpd were PDVSA's equity share delivered to a refinery in Cienfuegos jointly owned by PDVSA and Cupet for processing and re-export to the rest of the Caribbean. The Cienfuegos oil refinery, originally built by the Soviets but left unfinished for quite some time, was finally put into operation with investments from Venezuela and now processes Venezuelan petroleum both for use by Cuba and for exports to the rest of the Caribbean. As a result, Cuba has been able to re-export some of the oil received from Venezuela, earning some US \$800 million in 2008 from this source.

The oil that the Cuban government has been receiving from Venezuela is paid for in part by the services of some 30,000 Cuban medical doctors, sports trainers, military personnel and intelligence agents placed at the service of the Venezuelan government. Most of the personnel sent by Cuba to Venezuela receive only a small salary, with the bulk of their earnings (in dollars) going directly to gross up the revenue of the Cuban government.

Cuba's continued dependence on Venezuelan oil is a source of concern for Raúl Castro and his military supporters. The experience of 1989, when Soviet oil subsidies began to dry up and Cuba was forced to pay for its oil imports in cash and at market prices is still vivid in the minds of Cuba's leadership. A political change in Venezuela could bring about a similar situation once again.

Since taking over, Raúl Castro has moved swiftly to improve relations with Iran, Angola, Brazil and Russia, all major oil producers. Not that any of these countries are going to emulate Venezuela in providing Cuba with like quantities of oil under credits that Cuba will never be able to repay, but they can provide smaller amounts under favorable terms and conditions and perhaps soft credits, that would allow Cuba to adjust to a new reality without going through an economic contraction like the one that occurred after the termination of the Russian subsidies.

Cuba has been exploring for oil offshore in the north of the island and hopes to hit eventually commercially viable discoveries. Cuba has divided its offshore territory in the Gulf of Mexico into 59 exploration/production blocks, 21 of which already have been leased to seven foreign companies. PDVSA has stated that it plans to drill its first exploratory well in Cuba's offshore fields in 2010. Manuel Marrero Faz, oil advisor to Cuba's Ministry of Basic Industry, said earlier in 2009 that Cuba was in negotiations to lease another 23 blocks to firms including China National Petroleum Corporation, Angola's national oil company and a Russian consortium. Other companies that have leased blocks are Vietnam's state oil and gas group Petrovietnam, Malaysia's state-run Petronas and Brazil's Petrobras. The Spanish company Repsol drilled a test well 20 miles (32 km) off Cuba's northern coast in 2004 and said it discovered traces of high quality oil, but that it was not commercially viable at the time. Since then, there have been several announcements that Repsol would drill a second well, but each time the project has been put off without explanation.

According to the National Statistical Office, Cuba' production of refined oil products reached 5.46 million tons in 2008, compared to 2.3 million tons the previous year (this increase reflected in large part the coming into operation of the Cienfuegos refinery). Among the derived products that showed the largest increase were gasoline (from 392,000 tons in 2007 to 977,000 tons in 2008) and jet fuel (from 56,000 tons to 278,000 tons). Diesel fuel production rose from 464,000 tons in 2007 to a bit over one million tons in 2008, and fuel oil rose from 940,000 in 2007 to 2.7 million tons in 2008.

Cuba undertook an ample program of modernization of its electrical system in 2005, after experiencing a collapse of its electric grid in 2004. However, the current crisis has brought about a deceleration of the investments in the energy field. The government has tried to bring about a drastic cut back in domestic energy consumption of at least 10%. To achieve these specific reductions, consumption quotas have been assigned and Cuban businesses and government agencies that waste electricity are seeing their names publicized in a government move to embarrass them into reducing their power consumption and also have been subjected to penalties.

In recent months, the government has ordered lights and air conditioners turned off at banks, stores and other government institutions and reduced work hours at state-run businesses and factories to conserve energy. As a consequence, Cubans are once more confronting darkened stores and offices that are going without air conditioning into the early afternoon. The government has threatened to black out entire provinces if they do not meet reduction in power consumption targets. The austerity measures followed warnings by the government that it could not meet rising electricity demand because of a cash crunch that has forced it to restructure debt and put off payments to foreign businesses

INADEQUATE INFRASTRUCTURE INVESTMENTS

The industrial policy followed by the Cuban authorities over the last 50 years has resulted in a large dependence on imports of commodity as well as of intermediate inputs. Moreover, the technologies that Cuba adopted, many originating from the former socialist camp, are very inefficient as they tend to consume large volumes of raw materials and of energy in their operations.

The level of capital formation in recent years has not been sufficient to bring about a sustainable rate of growth of the economy. The level of investment in relation to the gross domestic product (GDP) has dropped from 13.2% in 2006 to 8.6% 2008. This compares to average rates in Latin America of 21.8% over the past fifteen years. As a result, Cuban infrastructure (factories, roads, railroads, sewerage systems, etc) are in

very poor condition and need very badly to be repaired and replaced.

According to a November 2007 EFECOM report, nearly 3,000 kilometers of major roadways in Cuba are in poor or substandard condition. Current planned repairs would not even amount to 400 kilometers per year. Over 75% of paved roadways in the Havana area alone are in poor conditions and in need of substantial and complex repairs. The cost of performing the needed repairs and improvements on the major highway system in Cuba has been estimated at US\$1 billion. Another US\$500 million would be needed to perform repairs and improvements in the railway system.

The Pan American Health Organization estimates that about 74% of the population in Cuba had access to a household connection for potable water. This is somewhat below the 80% rate in the Dominican Republic and well below the 90% of Chile and Costa Rica. Most countries report 100% treatment of their water supplies, whereas Cuba only reports 84%. Water treatment is typically done by chlorination for disinfection, but evidence suggests that the water is not being reliably chlorinated due to a lack of chlorine. The water supply system is unstable because pumps are in need of repair and because of frequent interruptions in the electrical supply needed to run the pumps. With respect to waste water, only 38% of the population is served by a waste water collection system and 19% of the waste water collected, very low rates in comparison with other countries in the region. These areas are the source of frequent complaints by the population and require important investments

The fall in export revenue (especially from nickel exports and tourism) has now made it necessary for the government to reconsider planned investments and to seek a cut in the imports of energy and other inputs. The government has announced a reduction of 6% across the board to the budgets of all regional organisms, including the most important sectors of the economy, and in his 26th of July 2009 speech, Raúl Castro warned that even more drastic cuts may be needed

I do not see the possibility for the Cuban economy to undertake the needed increases in capital formation and investments needed to ensure sustainable economic growth in the immediate future in the absence of considerable investments from abroad, something that does not seem plausible under current political conditions

DISTORTIVE MULTIPLE CURRENCY SYSTEMS

Cuba uses two domestic currencies: the ordinary peso, worth less than 4 US \$ cents, and the convertible peso, or CUC, valued at about US \$1.08. While Cuban workers are paid salaries in ordinary pesos, the island's hard-currency stores accept only the CUC. The exchange rate of the CUC with respect to foreign currencies is established by fiat by the Cuban government.

One problem that arises from the administrative pricing of the multiple exchange rate system is that Cuba must compete in the international market place, where prices are subject to demand and supply. Other countries can adjust the exchange rate of its currency as part of the adjustment process in the face of unfavorable external economic developments. When a country faces a large deterioration in its trade balance, its currency typically depreciates. Depreciation of the currency makes the country's goods and services cheaper for foreigners to buy. At the same time, the country's industry and agriculture can compete better against imports that are made more expensive by the depreciation. But in a country like Cuba, where there is no significant private activity, and the government maintains a multiple currency system, even for the domestic market, the room for adjustment is quite limited and has to be done through a decrease in domestic consumption by the population.

Take tourism by way of example. The 30% depreciation of the Mexican peso and 24% depreciation of the Jamaican dollar will make nearby resort areas such as Cancún and Montego Bay much more competitive with Cuban tourism offerings. Cuba's tourism industry will simply have to reduce its prices, and because the exchange rate does not change, thereby reduce its revenues too. Cuba simply does not have the choice of remaining impervious to international price changes. If it chooses to continue to meet international competition with its own internal price rigidities, then it will simply have to continue to administer shortages of the goods and services that become internationally more

expensive. Cuba will have to live with its productivity-damaging blackouts whereas more normal countries can adjust. As he was formerly the head of the Banco Internacional Financiero, Mr. Ernesto Medina Villaveirán, the current head of the National Bank, probably knows this. But he too will probably have no choice but to light a candle at night to read the grim internal reports about Cuba's foreign exchange reserves.

Moreover, the use of the different currencies for domestic transactions makes it very difficult to figure out what are the real cost of production of various activities, and to determine which ones are being subsidized and to what extent. An important step to introduce some degree of efficiency to the Cuban economy would be the elimination of the fixed multiple exchange system and the adoption of a single currency for all domestic transactions.

LAGGING QUALITY OF MEDICAL SERVICES AND EDUCATION

Education traditionally has been one of the showcases of the Cuban Revolution, but lately there have been growing criticisms about its performance. One of the problems has been the shortage of qualified teachers. Education in Cuba has suffered in recent years because teachers either retire, take up more profitable jobs, or leave the country. In many cases, their posts have been filled with high-school or university students whose pedagogical skills have proved to be unsatisfactory.

Exams given last May to 16,500 students that were about to graduate from the "Municipal Universities" showed a dismal command of the Spanish language, commonly misspelled words, and lack of knowledge about the most elementary elements of Cuban history and culture. As a consequence, the government has decided to quietly discontinue these institutions, which had been established throughout the island by Fidel Castro not too long ago.

Beginning in the fall of 2009, the Ministry of Higher Education will implement "a set of measures to potentiate political-ideological work in the universities in the quest for a better education." High-school seniors will be expected to score 60 out of 100 points in Cuban history, Spanish and mathematics tests before they can go on to college. And, once in college, students will

be made to participate more intensely in "social-impact tasks."

In addition, the government recently announced an increase in salaries for teachers starting with the September 2009 school year. The average increase in salary for individuals who work in general education is 122 pesos and for teachers it is 166 pesos. For those in higher education, the average increase is 93 pesos and for professors, 145 pesos. (It is estimated that this increase in salaries will cost the State some 820 million Cuban pesos.)

Another showcase of the Revolution has been medical services. However, here again there has been a significant deterioration in recent years. With so many medical doctors and other medical personnel sent abroad by the government, local medical services have deteriorated. Moreover, medical supplies and medicines are not available at the pharmacies and hospitals that common citizens can utilize. Only those hospitals designated to serve foreigner that pay in hard currency and the ones assigned for the service of the government leadership are fully staffed, well stocked and with appropriate equipment.

One must note moreover that Cuba's "free" education is partly paid for by students through forced labor in the fields and later with their acceptance of whatever job and salary the government assigns them for life. Medical care available to the common people is primitive and scarce, in contrast with that available to powerful government figures and their foreign clients. No one in Cuba has the right to decide his or her work, education, or conditions of life.

BALANCE OF PAYMENTS AND INTERNATIONAL CREDIT PROBLEMS

Cuba's external merchandise trade deficit skyrocketed by 65% in 2008, driven by a doubling in the value of oil imports, higher costs of food imports, and a decline in nickel exports. Nickel exports to Canada, Europe, and China fell to \$1.5 billion from \$2.2 billion in 2007. As a result of the global crisis, the world price of nickel fell some 80%, reaching a level close to or even below the cost of production. As a result the government debated whether to temporarily shut down production and ran into difficulties with its major producer and exporter, Sherritt International, which

demanded compensation for costs of production that exceeded the value of the export earnings. In recent years, Nickel accounted for 39% of exports, and pharmaceuticals 9%, followed by sugar and tobacco products each at 6%, other products represented 18%.

In 2008, oil exports became the second largest item in Cuban exports, overtaking pharmaceuticals, and reaching \$880 million in revenues or 22% of total exports. These oil exports were actually re-exports of oil received from Venezuela. Cuba has exported small amounts of the heavy crude it produces in the past, but this would not account for the big jump in 2008 exports.

The 2009 sugar crop barely reached 1.3 million tons, 13% below what was harvested in 2008, despite excellent weather conditions and a lengthening of the harvest way beyond usual practice. Cuba will have to import sugar once again to meet domestic consumption and international export commitments.

Venezuelan exports to Cuba (mostly oil) soared to \$5.3 billion in 2008 from \$2.9 billion in 2007, making that country Cuba's most important commercial partner. China remained Cuba's second most important, with trade valued at over \$2 billion, followed by Spain and Canada, as in recent years. The U.S. remains the island's fifth-largest trading partner. Imports from the United States rose in 2008, as U.S. food exports hit a record \$860 million, compared with \$608 million in 2007. Meanwhile, the official newspaper *Granma* has reported that demand for imports from China and Russia has declined in 2009, and so has foreign investment.

Tourism, which is the second largest source of foreign exchange, stagnated in terms of number of tourists in the early months of 2009 and experienced a decline of some 14% in value. The National Statistical Office (ONE) reports that Cuba received 1.2 million tourists in the first five months of 2009. The main origin of tourists that travel to Cuba at the present time, in order of importance, are Canada, Germany, United Kingdom, Italy, Spain, France and Mexico.

Receipts from remittances have increased because of the lifting of restrictions by the United States, but their volume has been below expectations because of the impact of the economic global crisis on the financial situation of the exile community

Just the decline in the world price of nickel, which fell from US \$33,000 per ton in 2007 to a bit over US\$15,000 per ton in 2009, will imply a fall of US \$720 million in export receipts for 2009 compared to 2008. Receipts from other exports, such as tobacco, lobsters and shrimp are also being affected by the global crisis. Export receipts from nickel and tourism are expected to be US \$1 billion lower in 2009 than in 2008.

The Minister of Economy and Planning, Marino Murillo, has recently publicly admitted that the international crisis has affected Cuba's ability to obtain international credits and this has made inevitable the need for reductions in domestic consumption. According to official sources, the contraction of available credit throughout the world as a consequence of the credit crisis increases the difficulties Cuba already had to obtain international loans and finance imports.

Cuba has a recognized international debt of US\$ 31,000 million dollars in convertible currencies, without including some US\$ 21,000 million owed to the former Soviet Union. This is the largest per capita debt in the World. The Cuban debt to the Paris Club countries has been refinanced several times, but Cuba has not been servicing most of this debt for a number of years. The lack of access to long term credits has meant that Cuba has had to depend more on expensive short term credits which impairs further Cuba's ability to repay its creditors. Recently, South Africa agreed to condone the outstanding Cuban debt in an effort to revive bilateral commerce between these two countries. The South African government announced that it would forgive a debt of US\$117 million outstanding since 1997 attributable to the purchase of 10,000 diesel engines. The Cuban government failed on three occasions to pay the installments on the US\$355 million credit deal it signed with Russia on September 28, 2006. "However, access to the credit line was not halted and, as of June 1, 2009, interest penalties for late payment have not been imposed."

In May 2009, Cuba rolled over 200 million euros in bond issues that were due in May, as the country's Central Bank asked for another year to repay foreign holders of the debt. The move is yet another sign that the Communist-run nation is suffering a cash crisis, as it struggles with sharp declines in revenues from tourism and key exports due to the global economic crisis. The two-year euro-denominated bonds of 150 million Euros and 50 million Euros that were rolled over were issued on the London Stock Exchange on May 3, 2007, at interest rates of 9% and 8.5% respectively. The terms of the rollover are not known. They were held mostly by Cuban entities, though some foreign banks with a history of providing credit to the island also participated.

The Central Bank, which named Ernesto Medina Villaveirán as its president following Francisco Soberón's resignation, has also been working to restructure some of its active debt. Cuban State Banks have almost run out of foreign exchange and run the risk of bankruptcy. As a consequence some 80 State Enterprises have postponed payments to external creditors, bank accounts in foreign exchange of hundreds of mixed enterprises have been frozen, and the government has prevented them from expatriating profits and payments to foreign suppliers. The Central Bank currently requires prior authorization for any payment exceeding 10,000 convertible pesos. Western commercial representatives and businessmen estimate that \$600 million, and perhaps more, are tied up in the banks, where employees say there simply is no money to transfer or cash for significant withdrawals.

Cuba's 2008 service exports, which are not included in trade deficit, amounted to \$9.2 billion, but local economists estimate the current account measuring the inflow and outflow of foreign exchange still fell \$1.5 billion to \$2.5 billion into the red, after registering a \$500 million surplus in 2007. Cuba's international reserves are a state secret, but were drawn on heavily last year after three hurricanes struck the Caribbean island.

RESTRICTIONS ON THE LABOR MARKET, SMALL ENTREPRENEURS

Cuba does not allow independent labor unions and most of the working population is employed by the government. Workers in the tourist industry and those hired by foreign-invested companies have to be hired through a government company that uses political and other criteria to determine who will be allowed

to work in that industry and establishes their salaries. (The government collects from foreign investors the salaries paid in foreign exchange but pays the local workers in Cuban pesos, only a small fraction of what is paid by the foreign company).

While some specific activities have been authorized for individuals to engage on a private basis ("actividades por cuenta propia"), prior authorization from the government is required and high taxes are levied on them. As a result, the number of people that legally enroll in these activities has remained small, and in fact has declined over time. Meanwhile activities in the black market have proliferated.

Average real salaries dropped by 3.4% between 2006 and 2008; in the case of minimum wages, the drop was 14.4% and the new salary structure approved last year has only been applied to about 18% of the labor force.

INADEQUATE LEGAL/ ADMINISTRATIVE FRAMEWORK

There has not been any significant change in Cuba's legal framework over the past year, but there have been numerous changes in the individuals occupying leading positions in the government, public enterprises, and the Communist Party, as Raúl Castro has taken steps to increase his control of the government apparatus. As a consequence of these changes, the role of the armed forces in the government has increased significantly. Despite the changes in personnel, with no good answer on how to solve Cuba's economic crisis, the government had to postpone indefinitely the Sixth Congress of the Communist Party, which was originally programmed for 2008. Cuba's Communist Party has not held a Congress since 1977. The Sixth Party Congress was supposed to chart the country's political and economic future without the presence of Fidel Castro.

In the 2009 World Bank Governance Indicators the Bank staff found that the situation in Cuba had worsened since 2007 in the categories of Voice and Accountability and Governance and Effectiveness. For this report the World Bank establishes a series of criteria that serve to measure to what extent the citizens of a country are able to participate in the selection of their governments and enjoy freedom of expression, association, and a free press. Over 95% of the countries

surveyed do better than Cuba in the indicator of Governance and Effectiveness and 75% surpass Cuba on the category of Voice and Accountability. Governance and Effectiveness measures the competence of the bureaucracy and the quality of public sector delivery, while Voice and Accountability measures the respect of political, civil and human rights.

The capacity of the government to resolve the problems facing the nation seems to have declined over the last two years and a number of shadow municipal independent entities have been established by dissidents that are harping at the official authorities about their lack of effectiveness in solving the local problems and about the growth of corruption of government officials.

CONCLUDING REMARKS

In his speech of July 26, 2009, Raúl Castro said that the global economic crisis means tougher times ahead for Cuba, but he admitted that the country has no one to blame but itself for the poor farm production that leads to frequent shortages of fruits, vegetables and other basics. He implored Cubans to take fuller advantage of a government program begun last year to turn unused state land over to private farmers. "The land is there, here are the Cuban people," he said, pounding the podium, "let's see if we get to work or not, if we produce or not, if we keep our word." Castro stated that since state officials began doling out unused state land to private farmers and cooperatives, 82,000 applicants have received more than 1.7 million acres nearly 40% of fallow state land. The program is betting that private interests can revive an agricultural sector crippled by decades of government mismanagement.

Raúl Castro also informed that government leaders will be meeting to assess the effect of the global crisis on Cuba's economy, "particularly the significant reduction of income from exports," and that "more belt-tightening may lie head for Cuba" as the government looks at making its second "adjustment to expenditures" in 2009 due to the effects of the global financial crisis. He said Cuba needs to press ahead with its program for getting more land into the hands of private farmers, calling the lone major economic reform of his administration a top national priority.

Cuba seems to be at a crossroads. The cumulative negative effect of many years of poor economic policies has been further amplified by the damage inflicted by the hurricanes that hit the island in 2008 and the impact of the global economic crisis. Meanwhile, the new administration of Raúl Castro has turned to the old men of the revolution in order to assure political support, casting aside the younger generation. These old revolutionaries continue to rely on their old tactics of economic controls and refuse to implement the more radical economic reforms that would be needed in order to turn the economy around. As a consequence, the social situation is becoming tense and the risks of a social upheaval increasing. The questions that arise are how much longer will these old men continue to run things, what would those that follow them do, and will the social situation in Cuba hold out without a major breakdown in the face of a continued deterioration of economic performance.

Meanwhile, the political changes in the United States have made it possible for the new administration to consider an easing of its policies towards the island. We must be conscious that the U.S. has always had as one of its main concerns the possibility of social unrest in Cuba that would bring about a major migratory movement of Cubans to the United States. To help prevent this, the U.S. administration seems to be willing to make some concessions that would ease the economic conditions in the island, but it would need to be able to show that there have been some policy movements on the Cuban side to be able to justify changes in policy with its own constituency. So far the Cuban authorities have refused to make any concessions.