

ECONOMIC SANCTIONS AS ‘NEGATIVE DEVELOPMENT’: THE CASE OF CUBA

JOY GORDON*

Loyola University, Philosophy, Chicago, IL

Abstract: Economic sanctions are often viewed as a useful tool to enforce international law. However, they can do significant damage to the economy and development of the targeted country. The US embargo against Cuba has not only blocked its access to US markets but also intervenes in Cuba’s trade with third countries, its international financial transactions, and the repair of its infrastructure. The embargo also targets each of the areas in which Cuba is positioned to produce goods and services on a par with highly developed countries, including medicine, biotechnology, and software. Copyright © 2015 John Wiley & Sons, Ltd.

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1 INTRODUCTION

A good deal has been written about the humanitarian impact of economic sanctions on civilian populations, in particular the impact on public health. This can be seen in the case of the US embargo against Cuba, for example (AAWH, 1997; Amnesty International, 2009; Barry, 2000; Garfield & Santana, 1997). In studies on the humanitarian impact of sanctions, it is common to see lists of items of various sorts that have been blocked: water treatment equipment, juice bottles, plywood, and so forth. In some sanctions regimes, the impact is limited to the inconvenience and cost of import substitution that are tied to the individual items. However, in other cases, a sanctions regime may be structured to constrict the productivity of the economy as a whole; to compromise the infrastructure and basic services in general; prevent the overall economic development of a nation; or indeed, to bring about its negative development. These can be seen in the US embargo against Cuba.

*Correspondence to: Joy Gordon, Philosophy, Loyola University, Chicago, IL, USA.
E-mail: cgordon3@luc.edu

2 THE SANCTIONS REGIME

It is often noted that the US sanctions imposed on Cuba do not seem to be particularly effective in achieving their goal of bringing about regime change. Fidel Castro was Prime Minister of Cuba from 1959 to 1976 and was President from 1976 to 2008. Raul Castro has been President of Cuba since then. Thus, the sanctions have been in place for over half a century without achieving their stated goal. Indeed, there are ways in which the sanctions in fact support Cuba's regime. In Cuba, the government invokes the sanctions often as evidence that the USA continues to maintain a posture of aggression towards the island. This, in turn, is used to justify restrictions on expression, association, internet access, and political diversity. However, while the political effectiveness of the embargo is questionable, the economic impact is substantial.

It is difficult to measure the impact of the embargo on Cuba's economy. There is little direct empirical data available, and it is also difficult to disaggregate the effect of the embargo from other external shocks or from internal inefficiencies. (Palacios, 2013, p.18) However, there is evidence that the impact is substantial.

The US sanctions regime on Cuba is multifaceted. It entails more types of sanctions than any other sanctions regime currently in force, whether imposed by the USA or any other nation or international body. These sanctions prohibit travel by US nationals, transactions in US currency, trade with US companies, trade with foreign subsidiaries of US companies, and export of software and technology. They block Cuba's access to international financial institutions (IFIs), and they also impose restrictions on third countries concerning their manufacture of goods with Cuban raw materials.

The embargo dates back to the Trading with the Enemy Act, which came into effect in regard to Cuba shortly after the revolution of 1959. While the embargo restrictions were in place more or less continuously after that, from 1959 to 1990, they did not significantly affect Cuba's development, as a result of Cuba's extensive trade (and subsidies) with the Soviet Union and the Eastern bloc. However, when the Soviet Union dissolved, Cuba lost 75–80% of its trade, (Ritter, 2010, p.2) and Cuba's economy went into free fall. Between 1990 and 1994, Cuba's GDP contracted by one third. (Ritter, 2010, p.2) At the same time, the US embargo was tightened considerably. In 1992, the congress passed the Torricelli Act, which provided that no ship could dock in the USA within 6 months of stopping in Cuba. It also prohibited foreign subsidiaries of US companies from trading with Cuba. In 1996, the congress passed the Helms–Burton Act, which permitted US nationals to bring suit against foreign companies doing business in Cuba with properties that had been abandoned or confiscated after the revolution. The Torricelli and Helms–Burton laws made the embargo 'extraterritorial'—that is, the US embargo was no longer limited to the activities of US persons and companies but rather imposed prohibitions and penalties against third country nationals doing business with Cuba, where no US entity was involved. There are also other measures that are not explicitly identified as components of the embargo but effectively operate to extend it. Among these are laws targeting those countries listed by the US State Department as 'state sponsors of terrorism', one of which is Cuba.

Certainly, Cuba's economic difficulties are not all attributable to the US embargo. There are inefficiencies resulting from a highly bureaucratized command economy, laws that restrict or burden private enterprises, and lack of diversification. (Spadoni, 2010, p.126) Even so, the sanctions impact Cuba's economy, infrastructure, and public services, contributing to Cuba's slow growth and low productivity. (CEPAL, 2010, p.209) Official

estimates are that in 2012, the impact of the embargo on Cuba's trade cost the country \$1.9bn. (United Nations Secretary-General, 2013, p.36)

3 THE SANCTIONS AND CUBA'S DEVELOPMENT

It is not immediately obvious that the sanctions have affected Cuba's development. The key indicators of development do not suggest that Cuba is doing that badly. According to the UN Development Program, Cuba is 59th out of 187 countries on the human development index (HDI). It has already achieved many of the Millennium Development Goals, (United Nations Secretary-General, 2013, p.122–123) and is on track to achieve the others by 2015. (Amnesty International, 2009) As of 2010, the illiteracy rate was 2.7%. (Mesa-Lago, 2013, p.27) In 2010, life expectancy was 79 years, and the infant mortality rate (IMR) was 4.5 per 1000 live births, comparable to that of Western developed nations, and slightly less than the IMR of the USA. (Sullivan, 2011, p.12) That Cuba has been able to maintain these in the face of its extended economic crisis is in part because of the restructuring of the Cuban economy. After the loss of trade with the Soviet Union, Cuba established substantial trade relations in Europe, Asia, and Latin America, as well as Canada. (León, 2002, p.167) Cuba's HDI also reflects its policy of prioritizing basic needs. From 1989 to 1996, during the worst of the economic crisis, expenditures on public health increased by 30% over 1989 levels, at the expense of public administration, defence, culture, and the arts. (AAWH, 1997, p.14)

However, despite these indicators, Cuba is a country with serious economic difficulties. The average salary, as of 2011, was \$19/month. (Ahramonline, 2012) There are severe shortages of housing and transportation. Much of the infrastructure is badly in need of repair. Clothing and basic household goods are in short supply, are often of low quality, and are extremely expensive.

For the last two decades, an array of UN agencies and other international organizations have reported on the effects of the embargo. UN staff reported that the US embargo "constitute[s] a major handicap for the further development of the economy in general and for the needed rehabilitation of its infrastructure in particular." (UN Resident Coordinator, 2000, p.24) This occurred in several ways. "Cuban export products are prevented from entering the United States market, the largest in the region and the closest to Cuba, and the sale of products to Cuba by both companies located in United States territory and their subsidiaries abroad is forbidden, all of which drives up shipping costs, makes it necessary to turn to third markets or intermediaries, perpetuates the so-called 'Cuba risk,' prohibits the use of the United States dollar in business transactions with Cuba and limits the acquisition of new technologies or goods." (UN Resident Coordinator, 2003, p.69) The damage to the economy, in turn, "represents a major obstacle and a stranglehold on the overall development of the country. Because it affects several facets of the economy of the country, it poses severe negative effects on the quality of life of the population as a whole, particularly the most vulnerable sectors and particularly in the areas of health and education." (UN Resident Coordinator, 2001, p.35)

At the same time, Cuba is a country that is positioned to shift its overall level of development to move away from an agriculture and service-based economy. Its population is highly educated, and there is a significant research infrastructure. Cuba has strengths in the sciences and technology, particular medicine, biotechnology, and software

development. In the areas where Cuba is functioning on a first world level, there are specific features of the embargo that undermine each of these.

In addition, the scope of the embargo is considerably expanded by 'extraterritorial' measures. If the embargo only served to block Cuba's trade with one country—even a close neighbour with vast markets—its impact would be limited. However, while the embargo is ostensibly only a unilateral measure, its impact is magnified when the prohibitions impose penalties on foreign companies for trade with Cuba. The effect of the embargo is also magnified where the USA holds a monopoly on certain goods or controls access to global institutions. In these cases, the embargo effectively functions as though it were global.

4 LOSS OF TRADE

The embargo affects Cuba's trade in several ways. There are obviously losses resulting from the lack of access to US markets and investment. Cuba has suffered major losses because it cannot export coffee, tobacco, lobsters, and aquaculture products to the USA, which is the closest market. (FAO, 2013)

In addition, the prohibition on exporting goods to Cuba is problematic, particularly in regard to goods produced only in the USA for which substitutes are not available or cannot easily be found. For example, the water treatment plants that process most of Cuba's drinking water are built with components manufactured by Wallace & Tiernan, a US company. After the Torricelli Act was passed 1992, Cuba could no longer purchase parts for its chlorination system from that firm. According to the AAWH, "that single embargo-related prohibition jeopardizes safe drinking water of every city in Cuba with over 100,000 inhabitants—a total of four million people". (AAWH, p.20)

The US ban on trade is expanded further when a foreign company relocates a production facility to the USA or where there are mergers or acquisitions. For example, Germany's Bayer AG could no longer sell the pesticide Sencor to Cuba after production of one of the ingredients was moved to Kansas City. (Hidalgo & Martinez, 2000) The Swedish company Pharmacia had sold medical equipment, chemicals, and medicines to Cuba since 1970. However, after it merged with Upjohn, a US company, all further sales to Cuba were prohibited. (Hidalgo & Martinez, 2000, p.110) Cuba lost a major supplier of pacemakers for heart patients when the Swedish company Siemens and Australia's Teletronics Pacing System came under US ownership. (Hidalgo & Martinez, 2000, p.110)

The embargo also intervenes in Cuba's access to foreign investment originating in third countries. According to the United Nations Conference on Trade and Development (UNCTAD), Cuba received inflows of \$110m in 2011; Cuba maintains that it could have received \$350m in such investment from the USA had there been no embargo, given the level of foreign investment in the area, and the rate of growth. UNCTAD figures show that neighbouring Dominican Republic received \$2.4bn in the same year; (United Nations Secretary-General, 2013, p.117) and the flow of foreign direct investment to the region showed an increase of 31 per cent over the previous year. (United Nations Secretary-General, 2013, p.40) Cuba's exclusion from the economic growth in the region is in part because of the Helms–Burton law, which allows Cubans who owned property in Cuba prior to the revolution to bring suit in US courts against foreign companies that now own or use these properties. The Mexican company Cemex withdrew from a joint venture in Cuba for fear of litigation from the US company Lone Star Industries, which had owned

the property prior to 1959, and was entitled to sue Cemex under the Helms–Burton law. Similarly, the Redpath company, a Canadian sugar refiner, withdrew from Cuba in response to the Helms–Burton legislation. (Spadoni, 2010, p.34)

The US restrictions on banking have also broadly affected Cuba's economy. In 1998, a State Department official maintained that because of US measures, interest rates for financing Cuban development projects had reached 22%. (Spadoni, 2010, p. 111) Because Cuba cannot conduct transactions in US dollars, there are additional costs from exchange rates. It is difficult for Cuba to find foreign banks to conduct business, because their fund transfers or credit card transactions may be blocked by the USA. Cubans living abroad often cannot find banks to transmit remittances to their relatives. It is difficult for Cuba to even get banking and trade information, such as exchange rates and commodity prices, because Reuters recently cancelled its financial information services in response to the embargo. (UN Secretary-General, 2013, p.37)

The provisions of the embargo concerning banking restrictions are aggressively enforced. This has been particularly true in the last few years. In 2009, the Treasury Department fined Credit Suisse Bank almost half a billion dollars for financial transactions involving Cuba and other countries subject to US embargoes. (SELA, 2010, p.6) In 2012, HSBC paid the Treasury Department a penalty of \$375m for violating US sanctions laws, and the Dutch bank ING paid a record \$619m. Unsurprisingly, a number of major Canadian and European banks have stopped doing business with Cuba, including Barclays, the Bank of Nova Scotia, Credit Suisse, Deutsche Bank, Royal Bank of Canada, and HSBC. (GAO, 2007, p.108)

According to Cuba's annual report to the UN, the banking restrictions increased, among other things, the costs of food imports in various ways. Cuba's national food import company, Alimport, reports that in 2012, it lost \$45m because it could not engage in direct transactions with US banks. In addition, because Cuba is considered to be a high-risk country, Alimport reported that the financing costs charged by third party creditors were 8–10%, rather than the usual rate of 5–6%, in response to the difficulties related to the embargo. (UN, Secretary-General, 2013, p.32) Alimport also estimated that it lost \$20m because of the costs of currency exchanges as a result of the prohibition on transactions in US dollars and an additional \$10m from transaction fees because of the number of banks involved in commercial transactions. (UN Secretary-General, 2013, p.33)

Cuba's trade is also affected by the US measures that prohibit ships, of any nationality, from stopping at a US port within 180 days of entering a Cuban port. For many companies, the restriction makes deliveries to Cuba commercially unfeasible because they would normally deliver or take on shipments from the USA while they are in the Caribbean. A New Zealand company, for example, cancelled its agreement to sell 1500 metric tons of powdered milk to Cuba when its shipping company refused to deliver the cargo to Cuban ports. (Hidalgo & Martinez, 2000, p.108)

5 TARGETING CUBA'S STRENGTHS

Thus, the embargo generally constricts Cuba's economy by compromising its access to markets, to shipping, and to capital. However, in addition, the embargo specifically targets each of Cuba's major economic strengths, such as tourism, biotechnology, exports of nickel and sugar, and the projects that could significantly change Cuba's economic prospects, such as oil drilling and major infrastructure improvements.

5.1 Tourism

Cuba's tourism industry is directly affected by the embargo's prohibition on US travel. According to the World Tourism Organization, cruise companies estimate that of the 7 million US citizens who buy cruises to the Caribbean, around 1 million would visit Cuban ports annually if they were permitted to. (UN Secretary-General, 2013, p.32) Additionally, the embargo interferes in Cuba's tourism trade by intervening in investment by companies from third countries. For example, the US State Department sent letters to companies such as Sol Melia, the Spanish hotel chain, and France's Club Med warning them that they could be subject to litigation and penalties in the USA for their business activities in Cuba. (Spadoni, 2010, p.103) In 2004, the Jamaican company 'Superclubs' cancelled a contract to operate two hotels in Cuba after the Bush administration notified them that the USA would impose visa restrictions on their top executive in 45 days if the company did not withdraw from Cuba. (Spadoni, 2010, p.109)

5.2 Nickel and Sugar Exports

Cuba has the world's fourth largest nickel reserves. Nickel, a strategic metal, is used in producing stainless steel. It is also Cuba's leading export and a critical source of hard currency. (Department of Agriculture, 2008, p.11). To some extent, the USA has sought to pressure foreign companies that invest in Cuban nickel production by, for example, denying visas to executives of the Canadian company Sherritt International, which has a major nickel mining operation in Cuba. However, more significantly, the Helms-Burton law prohibits the US import of any goods that are of Cuban origin, in whole or in part, or were manufactured or produced in Cuba, in any part, or were ever located in or transported from or through Cuba. (Helms-Burton Act, Sec. 110(a)). Thus it is prohibited to import or 'deal with' any metal object manufactured anywhere in the world, which contains even trace amounts of Cuban nickel. As a result, Cuba's market access and distribution channels are more costly and circuitous. Government officials estimated these costs for 2012 to be \$52m. (UN Secretary-General, 2013, p.41) The same applies to sugar, Cuba's leading agricultural export. Under US law, for example, a Belgian producer of chocolate cannot export its products to the US if they contain any sugar produced in Cuba.

5.3 Medicine, Biotechnology, and Software Engineering

In certain ways, Cuba functions on the level of first world nations and is poised to expand in those areas. This is most evident in the areas of medicine, biotechnology, and information technology. Cuba has enormous resources in medicine and biotechnology. There are 340 000 health-related workers in the country, including 67 000 physicians. (WHO, 2002, p.52) These have been critical in developing export medical services. The embargo and related policies target these resources in various ways.

Cuba's program with Venezuela of 'doctors for oil' has brought in over \$2bn annually in imports from Venezuela. (Feinberg, 2011, p.26) There is a similar program in which some 4000 Cuban doctors work in underserved areas in Brazil. (Kiernan, 2013) However, since 2006, the State Department has maintained a program to attract Cuban medical professionals that the Cuban government had sent abroad for work or study, granting them entry into the USA, (Department of State, 2009) to increase the emigration of health care

professionals from Cuba. In addition, the restrictions on US exports prevent Cuba from acquiring sophisticated medical equipment that is produced in the USA. For example, the National Centre for Medical Genetics has been unable to purchase a genetic analyzer because they are produced exclusively by the US companies such as Applied Biosystems, a subsidiary of Life Technologies. This equipment makes it possible to read DNA sequencing bases and is an essential tool for the study of genetic disorders such as hereditary breast cancer. (UN Secretary-General, 2013, p. 31–32)

Cuba began investing heavily in biotechnology in the late 1980s. By 1992, there were 53 biotechnology centres doing research in the areas of agriculture, forestry, industrial technology, and human medical and pharmaceutical technology. (Feinsilver, 1994, p. 169) Cuba has developed medical and pharmaceutical products, including both diagnostic and therapeutic products, industrial enzymes, products related to plant and animal genetics, and agricultural biotechnology, including biopesticides, biofertilizers, and disease-resistant seeds. (Feinsilver, 1994, p. 171–172) In biotechnology, an “area[] where Cuba has registered important breakthroughs... the embargo forbids agreements with United States pharmaceutical companies that have a leading position in that field, thus imposing limitations to the possible development of pharmaceutical products to combat important diseases around the world and most importantly, the developing world.” (UN Resident Coordinator, 2001, p.36) The Torricelli law specifically targets biotechnology, prohibiting the export of any medical equipment or goods that could be used in the production of any biotechnological product. (GAO, 2009, p.15)

Cuba has 11% of all the scientists in Latin America. However, according to the UN coordinator in Cuba, the embargo has “retarded the scientific development of the country. Cuban scientists can engage in only very limited exchanges with their counterparts in the United States and scarcely have any opportunity to attend higher-level courses at United States universities. They also have difficulties in obtaining bibliographies, equipment, lab materials, etc.” (UN Resident Coordinator, 2001, p.36) Cuban scientists are frequently denied visas to attend scientific conferences held in the USA.

Cuba has also prioritized software engineering in its development goals: Cuba has an abundance of university graduates; software development requires little capital investment, and Cuba can provide relatively inexpensive programming and software development for international companies. (Casacó, 2004, p.178) However, Cuba’s development in this area is limited by its lack of access to equipment and software. The University of Havana, for example, cannot buy computer products for its students and faculty from US companies such as Apple and Hewlett Packard. But in addition, it also cannot purchase computer equipment from, say, Japanese companies, such as Toshiba and Sony, that use processors made by Intel, which is, in turn, a US company. The Cuban government estimates that it pays up to 30% more when it purchases equipment from third countries. (UN Secretary-General, 2013, p.34) Nor can Cubans download software from US websites, such as Java, Adobe Flash, and Oracle, because under US law these are blocked to prevent Cuban access. (UN Secretary-General, 2013, p.138)

6 INCLUSION ON THE LIST OF TERRORIST STATES

Cuba has been included in the State Department’s list of states sponsoring international terrorism since 1982, for its ties to the Eastern bloc and to Latin American revolutionary movements. Although neither of those is currently applicable, Cuba continues to be included on the list, for reasons such as its opposition to the US-led coalition pursuing the global war on terrorism. Countries included on this list are denied most forms of foreign aid, as well as

trade benefits and access to IFIs. (Sullivan, 2005, p. i) However, there are other consequences as well. These include attempts by Florida legislators to block infrastructure development projects in Cuba by adopting legislation aimed at state sponsors of terrorism.

Cuba's ports are underequipped and in need of repairs, making it more costly and difficult for both container ships and cruise ships to access. (Department of Agriculture, 2008, p.27) This, in turn, increases the costs and access to imported goods, as well as limiting Cuba's growth of tourism, one of its major sources of income. At the same time, Cuba's domestic transportation infrastructure faces difficulties as a result of lack of fuel, lack of trucks, and inadequate railroad rolling stock. (Department of Agriculture, 2008, p.28) Consequently, Cuba undertook a project with a subsidiary of the Brazilian company Odebrecht to develop the port of Mariel. The expanded port would not only serve Cuba but would be a mega-port for container ships in the Caribbean. In response, Florida passed a state law prohibiting state and local governments from awarding contracts of \$1m or more to companies that conduct business with countries designated as state sponsors of terrorism. This legislation was directed at an Odebrecht subsidiary that has major construction projects in Florida. (Gray, 2012)

Cuba may also have considerable offshore oil reserves and has been doing exploratory drilling. In response, senators William Nelson and Robert Menendez (from Florida and New Jersey) introduced legislation that would triple the liability of oil companies for any spills that originate in countries designated as state sponsors of terrorism. (Derby, 2011)

While the Florida legislation was overturned by the courts, and the proposed federal legislation was not adopted, such measures reportedly result in a chilling effect that causes Cuba's potential business partners to reconsider development projects in Cuba,

7 GLOBAL IMPACT

US companies are often the sole producers of state-of-the-art equipment or products that serve as the industry standard, and consequently, these are then unavailable to Cuba. This is true, for example, of Microsoft Word and Microsoft's other products, which dominate the global market. There are also high-quality products for agriculture, such as low-toxicity insecticides and highly effective pesticides, that are only produced by US companies. (FAO, 2003, p.83) There are similar issues with medical equipment. Cuba's Nation Institute of Oncology and Radiology sought to buy a positive emission tomography/computerized tomography (PET/CT) scanner. However, this is made by only three manufacturers in the world, all of them US companies that are barred from selling it to Cuba. (Amnesty International, 2009, p.18) Cuba cannot buy certain antiretroviral drugs for pediatric use because they are manufactured only by American pharmaceutical companies. (UNDP, 2009, p.103) The same is true of Amniomax, which is used for prenatal diagnosis of Down's syndrome. (UNICEF, 2009, p.96)

Also, the unilateral US measures function in effect as global measures in blocking Cuban access to IFIs. The Helms-Burton Act interferes with Cuba's access to global financial institutions, including the International Monetary Fund, the World Bank, the International Bank for Reconstruction and Development, and the Inter-American Development Bank, by requiring the US representatives on their boards to oppose Cuba's admission to the organization. (Helms-Burton Act, Sec. 104(a)(1)) Because there is weighted voting, this makes it extremely unlikely that any of these organizations would ever admit Cuba. If any of these institutions were to somehow override the will of the USA and approve a loan or other assistance to Cuba, the Helms-Burton law provides that

the USA will withhold its payments owed to that institution in the same amount. (Helms-Burton Act, Sec. 104)

This has been particularly damaging during Cuba's economic crisis because, as UN officials note, it "limits the possibilities of Cuba's access to global settlement mechanisms for a possible rescheduling and/or restructuring of its external debt." (UN Resident Coordinator, 2001, p.37) Cuba's debt is considerable, totalling some \$32bn, as of 2008; although (as of 2007) Cuba recognized only \$9bn as 'active external debt'. (Feinberg, 2011, p.14) At various points, Cuba has suspended payments on debt service and frozen transfers of foreign exchange. (Feinberg, 2011, p. 189) This has further undermined its access to international capital markets. The UN coordinator in Cuba noted that denying Cuba access to Bretton Woods institutions "has the secondary effect of increasing the difficulties of negotiating debt settlements and credit with public and commercial creditors, including Paris Club creditors... Cuba is one of the few countries in the world facing a deep restructuring of its economy without assistance from international financial institutions." (UN Resident Coordinator, 1997)

The US embargo also compromises the work of international development agencies in Cuba. In 2004, when the World Health Organization sought to buy laboratory reagents from the British company Oxoid to provide medical services in Cuba it could not because Oxoid had been acquired by a US company. (WHO, 2004, p.24) In 2006, the United Nations Development Programme, in a project funded by the Global Fund to Fight AIDS, Tuberculosis, and Malaria, contracted with Oro Rojo, a Brazilian company, to buy canned meat for HIV-positive patients in Cuba. However, Oro Rojo was acquired by a US company and cancelled its contract to provide goods for use in Cuba (UN Secretary-General, 2006, p.77) The International Civil Aviation Organization was not permitted to buy spare parts and equipment made in the USA, which were necessary for a joint project in Cuba. (ICAO, 2006, p.11) The International Atomic Energy Association has reported that it could not get certain equipment produced by US companies that is necessary for training programs that include Cubans and that visas for Cubans invited to participate in its workshops and meetings in the US are denied. (IAEA, 2009, p. 89) Likewise, the Food and Agriculture Organization was prevented by the embargo from obtaining fire-fighting equipment for use in its joint project with Cuba to develop the capacity to combat forest fires. (FAO, 2002, p.32) The embargo has also compromised the efforts of these organizations to introduce more advanced technologies to Cuba. For example, the UN's Industrial Development Organization could use only rudimentary automation programs in its project to install computerized manufacturing equipment in Cuba's garment industry, because the newer technologies were produced in the USA. (UN Resident Coordinator, 2005, p.56) The UN Development Program had considerable difficulties in a joint project with Cuba's ministry for the sugar industry involving the installation of steam and electricity-generating plants using sugarcane bagasse as fuel because it could not purchase equipment that relied on technologies patented in the USA. (UN Resident Coordinator, 2005, p.56)

8 CONCLUSION

It is difficult to measure with any precision the exact impact of the embargo on the Cuban economy, partly because Cubans, and the Cuban state, have been resourceful at redirecting resources and employed other means of compensating for the losses caused by the

embargo. At the same time, Cuba's economy suffers from significant problems aside from the embargo, such as the lack of diversification and inefficiencies in production. Thus, it is difficult to say with precision how much the embargo alone has affected the economy as a whole.

However, that is not to say that the impact is trivial. Certainly, Cuba is damaged by the loss of access to US markets. It is more costly and difficult to find buyers for sugar, nickel, and its other exports. This is considerably worsened by the extraterritorial measures that prohibit companies from third countries from exporting any goods to the US made with Cuban materials. Cuba effectively loses not only access to US markets but to all other companies globally that sell goods to US markets.

Cuba's access to US products is impacted similarly. There are obviously greater costs, such as shipping, in purchasing goods from Europe or Asia that are also produced in the USA. However, the effects of those restrictions are magnified in regard to goods for which substitutes are not available, such as specialized medical equipment and infrastructure components that are manufactured only by US companies.

The banking restrictions, which have been aggressively enforced, have also been deeply damaging, making it far more costly and difficult to find banks anywhere in the world that will facilitate even the most ordinary commercial transactions. Although the USA does not have direct power over the WorldBank and IMF, the weighted voting, and the threat to withhold contributions, have successfully prevented Cuba from accessing IFIs to obtain loans and refinance its debt in the face of a severe economic crisis.

However, the embargo affects not only Cuba's trade and economic growth but also its overall level of development. Cuba has considerable strengths in medicine, the sciences, and technology. With access to equipment, capital, and markets, Cuba would be positioned to shift from an economy based on services and agriculture to a more robust industrial base, producing goods with greater value added, and in some regards, to produce goods and services on a par with highly developed countries. The US embargo specifically targets each of these areas of strength, with measures that are aggressively enforced.

While economic sanctions are often seen as an important tool in diplomacy and global governance, they may also affect the overall level of a country's economic development. To some extent, the US embargo on Cuba compromises Cuba's ability to meet the basic needs of its population, including food security and adequate potable water. Where Cuba is positioned to shift its level of development to that of first world countries, such as medicine and biotechnology, the sanctions impede this shift.

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