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Economic and Strategic Impacts of U.S. Economic Sanctions on Cuba¹

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Abstract:

This paper presents research concerning unilateral economic sanctions imposed by the United States on Cuba. The various sanctions in place are identified and are discussed in terms of their underlying policy rationales and motivations. The cumulative impact of these various sanctions is assessed from the perspective of the sanction target, Cuba, in both economic and social terms. We then extend this analysis of sanction impact by identifying the impact on the sender country, the United States, and on third countries harmed and benefited by U.S. sanctions on Cuba. The paper concludes by assessing the efficacy of current U.S. sanction policy on Cuba by highlighting economic as well as strategic costs and benefits of these sanctions and discusses implications of our assessments for future economic relations between the U.S. and Cuba. This paper is part of an ongoing research project on economic sanctions by the authors. The ideas presented here were outlined at the BIE/CIBER Directors Annual Meeting in San Juan, Puerto Rico, June 27, 2002.

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INTRODUCTION

An island nation in the Caribbean Sea, Cuba historically has been linked both commercially and politically to its mainland neighbor 90 miles to the north, the United States. Cuba has provided the United States with commodities such as sugar and nickel, while its small but growing local market has offered export opportunities to U.S. producers in a variety of sectors. Meanwhile, the United States, with its relative abundance of capital, was the largest investor in Cuba prior to 1960.

But despite the obvious economic arguments in favor of close and sustained relations between the two nations, a chasm in political ideologies divides them. This chasm was precipitated by the 1959 overthrow of the Batista regime by revolutionaries led by Fidel Castro and his cohorts, who advocated the creation of a socialist-style republic. A concomitant strengthening of commercial and political relations between Cuba and the Soviet Union caused the United States to initiate a series of policies effecting a near-total economic embargo against Cuba. Many Cubans left the island and emigrated, especially to South Florida, where a Cuban diaspora flourishes.

Economic sanctions imposed by the United States on Cuba are broad-reaching in scope and duration, with a track record of more than four decades. As such, the case of Cuba is particularly instructive concerning the staying power of the United States in unilaterally maintaining pressure on another nation via economic sanctions and in terms of the ability of sanctions to effect policy changes in a target nation.

The impetus for these sanctions and the resulting economic and social impacts on Cuba are best understood by dividing the sanctions history into two periods, with 1990--the year of the Soviet collapse--at the fulcrum. The first period's sanctions were motivated largely by a desire to contain the threat of communism globally and in the Western Hemisphere in particular. The subsequent period's sanctions have been motivated by desires to effect a transition to a democratically elected government and protect various human rights for Cuban citizens. This period's sanctions reflect, in large part, the lobbying efforts of the Cuban exile community, a group motivated morally and politically by concerns for democracy in their homeland and economically by restitution claims for properties expropriated by the Castro government and/or abandoned on the island.

In terms of achieving its goals, the policy of containing the spread of communism in the Western Hemisphere was largely met, though whether this result was due to the imposition of U.S. sanctions is difficult to prove (or disprove). The geopolitical result, however, is undeniable: today, democracy abounds in one form or another throughout the Americas. Most observers of Cuba-U.S. relations will concede this policy "victory" for sanctions. Since the Soviet collapse, however, criticism has emerged concerning the appropriateness and efficacy of U.S. sanctions against Cuba.

The Cuban economy has not performed well in recent years, although the nation did have many years of notable economic growth after sanctions were first imposed by the United States in 1960. We argue, however, that sanctions alone are not to blame for the country's current economic weakness. A largely inefficient centralized system and related policy shortfalls are at the core of Cuba's economic problems. For example, a reliance on monocrop exports with little added value has subjected the nation to swings in world commodity prices and, at times, unfavorable climatic conditions. Failure to accept membership terms set by multilateral institutions such as the International Monetary Fund (IMF) and World Bank have prevented Cuba from gaining access to development assistance that provided many of its neighbors in the region with the impetus needed for enhanced growth and development. And similarities in natural endowments with other Caribbean nations have made Cuba an easy target for the diversion of product exports to, and service exports from, the United States, mostly in the form of tourism to the other Caribbean countries.

The enormous size disparity between the United States and Cuba has made U.S. economic losses fairly trivial. Losses by Cuba have been much more significant, though they were largely offset until 1990 by intensive Soviet engagement and assistance. In 1988, some 85% of Cuba's trade was with the Soviet bloc; by 1992, these levels were down nearly two-thirds. Economic and military aid from the Soviet Union represented one-fifth of Cuban GDP in the pre-1990 period (Rich Kaplowitz 1998).

Another important moderator of the impact of U.S. sanctions is the Cuban diaspora, which remits significant sums of money (in dollars) to family and friends on the island. Remittances from abroad are believed to be the single largest contributor of external resources to the Cuban economy (Perez-Lopez 2000). These remittances, coupled with recent Cuban moves toward liberalizing the economy, have allowed the Castro regime to weather the economic storm and avoid renouncing its socialist system. The diaspora's contributions to the Cuban economy, in tandem with selective economic liberalizations, have resulted in a dual economy-one in dollars and one in pesos--with resulting inequities between sectors of society. Although most

Cubans have suffered somewhat under the imposition of U.S. economic sanctions, those outside the "dollar economy" have shouldered the heaviest burden.

Even though the overall economic impact of sanctions on the United States has been minimal, we feel they have exacted great costs in terms of lost and foreclosed international business opportunities. They also have compromised U.S. global leadership on trade and social policy issues and caused potentially irreparable damage for humanity in key areas such as advances in biotechnology and avoidance of environmental degradation.

In this paper we analyze U.S. unilateral economic sanctions against Cuba. We discuss the sanctions and their precipitating policy rationales, assess the impact of U.S. sanctions on Cuba economically and socially, and identify (and, where possible, measure) the impact of sanctions on the United States as well as on third countries most affected by the U.S.-Cuban relationship. We conclude by assessing the efficacy of U.S. sanctions on Cuba and offer projections for their future relationship and recommendations for improving the likelihood of meeting current U.S. policy goals toward Cuba.

OVERVIEW OF U.S. UNILATERAL ECONOMIC SANCTIONS AGAINST CUBA

U.S. sanctions have been in force against Cuba since 1917 but most notably since 1960, after the Batista regime was overthrown. In this section we briefly summarize the primary sanctions against Cuba as delineated by the International Trade Commission (2001) in chronological order of their imposition. We also note key historical events that precipitated the imposition of these sanctions.

1917: Passage of Trading with the Enemy Act

This act provides the legislative basis for U.S. financial sanctions against Cuba. Initially focused on U.S. entry into World War I, it authorizes the president to "prohibit, limit, or regulate trade with hostile countries in time of war." An amendment in 1933 expanded presidential authority to invoke this act during times of national emergency. Although another amendment in 1977 nullified the national emergency option, it allowed the president to provide annual justification for any existing sanctions. Since 1977, all U.S. presidents have issued annual determinations extending the "state of emergency" and, hence, the embargo against Cuba.

1960: Imposition of Sanctions Under Export Control Act

In 1960, President Eisenhower imposed export sanctions against Cuba under the 1949 Export Control Act after Castro's government began expropriating U.S. property on the island, namely petroleum processing facilities owned by Texaco. Only unsubsidized foodstuffs and medical supplies were exempted from export controls.

1961: Passage of Foreign Assistance Act

This act authorized President Kennedy to impose a total trade embargo against Cuba. In 1962, during the annual re-certification of the act, subsection 602(e) was added, disallowing U.S. assistance to communist countries and reinforcing sanctions against any countries expropriating U.S. property.

The Foreign Assistance Act was passed on the heels of the CIA-backed Bay of Pigs invasion, wherein some 1,200 Cuban exiles landed in Cuba with the goal of ousting the Castro regime. Cuban military forces quickly defeated this exile contingent, killing 80 and imprisoning the remainder. Some of those captured were executed for allegedly committing brutal crimes during the Batista period; most of the others were freed in December 1962 (National Bipartisan Commission on Cuba 2000).

Soon after the passage of the Foreign Assistance Act, Castro declared, "I am a Marxist-Leninist, and I shall be a Marxist-Leninist to the end of my life." Almost a year later, Kennedy announced that the Soviet Union had placed nuclear missiles in Cuba, initiating the five-day Cuban Missile Crisis, which brought the United States and the Soviet Union to the brink of nuclear war. This incident, coupled with Castro's

declaration of allegiance to socialism, forged the political and economic relationship between Cuba and the Soviet Union (National Bipartisan Commission on Cuba 2000).

1962: Passage of Tariff Classification Act

This act suspended Cuba from receiving reduced and most-favored-nation (MFN) duty rates. Under the act, suspension of reduced duties is required when the United States concludes a country "is dominated or controlled by the foreign government or foreign organization controlling the world communist movement." It is important to note that this was in many ways a symbolic declaration (at least with respect to Cuba), as imports from the island had ceased arriving in the United States earlier that year as a result of actions pursuant to the Foreign Assistance Act. Later in 1962, the Cuban Missile Crisis took place, solidifying U.S. sentiment against the communist world.

1963: Imposition of Cuban Assets Control Regulations

These regulations were published by the U.S. Treasury Department's Office of Assets of Foreign Control, which issues, interprets, and applies economic sanctions. The regulations effectively froze all private and public Cuban assets in the United States, prohibited all unlicensed American financial and commercial transactions with Cuba or Cuban citizens (including those by U.S. subsidiaries overseas, the first extraterritorial provision of U.S. sanctions policy against Cuba), and prohibited direct and indirect U.S. exports to and imports from Cuba. Explicit exceptions to these sanctions included publications, telecommunications services, informational materials, and up to \$100 of Cuban merchandise in possession of authorized travelers. The Treasury Department is required to approve all transactions and transfers with Cuba.

1973: Establishment of Bilateral Anti-Hijacking Agreement

In keeping with the détente between the United States and the Soviet Union during the mid-1970s, the United States and Cuba took small actions to normalize relations. One such action was the negotiation of an anti-hijacking agreement, which allows for the sharing of information to promote mutual interests in thwarting hijacking in Cuba or the United States.

1975: Amendment to Cuban Assets Control Regulations

In 1975, the Treasury Department issued an amendment loosening the regulation that restricts subsidiaries of U.S. companies operating in third countries from conducting business with Cuba. Later that year the Treasury Department revoked the regulation altogether and replaced it with a specific trade license.

1977: Lapse of Travel Restrictions/Agreement on Maritime Issues/Bilateral Opening of "Interest Sections"

Under President Carter, some restrictions on U.S. citizens traveling to Cuba were allowed to lapse (e.g., U.S. citizens were now allowed to spend up to \$100 on Cuban goods) and an accord on fishing rights and maritime boundaries between the United States and Cuba was signed. "Interest sections" were opened in Havana and Washington, D.C., in lieu of official embassies. Each interest section is "attributed" to the respective Swiss embassy, but physically located on the site of each country's former embassy.

1982: Reinstatement of Travel Restrictions

In the late 1970s, Cuba sent military forces to Africa, effectively halting further normalization with the United States. In 1982, President Reagan reinstated restrictions on U.S. citizens traveling to Cuba, reversing the easing of these sanctions under President Carter.

1992: Passage of the Cuban Democracy Act ("Toricelli Act")

This act codified and expanded many of the existing U.S. sanctions against Cuba and added new ones, effectively ending all steps toward normalization. The act does the following:

- Prohibits subsidiaries of U.S. companies from conducting business with Cuba, thus reinstating the 1963 regulation that was rescinded in 1975
- Restricts the movements of any trade "vessels" between the United States and Cuba. Any vessel loading/unloading freight in Cuba cannot enter a U.S. port or place within 180 days of leaving Cuba. In addition, U.S. ports are closed to vessels carrying goods or passengers directly to/from Cuba, and no goods are to be transported in vessels in which Cuba or a Cuban national has "any interest."
- Subjects medical supplies, equipment, and so on to inspection to make sure they are only to be used for their intended purposes and for the direct benefit of the Cuban people (i.e., humanitarian medical supplies cannot be resold for profit or used by the Cuban government)
- Grants the president the authority to prohibit economic assistance, military assistance or sales, debt forgiveness, or reductions of monies owed to the United States to any country providing assistance to Cuba
- Requires the president to maintain "strict limits" on remittances to Cuba by people in the United States
- Allows the Treasury Department to levy civil fines and property forfeitures on those found to be violating U.S. sanctions against Cuba
- Allows (with some limitations) telecommunications and postal services to be operated between the United States and Cuba and provides for payments to the Cuban government for these services

International response to the Cuban Democracy Act (CDA) was relatively mild. Some observers expected the application of the sanctions against U.S. subsidiaries operating abroad to raise the ire of important trading partners and political allies, such as the European Union. Leaders in those countries apparently were willing to "sacrifice" U.S. subsidiaries in favor of their domestic firms, which benefited from reduced competition for Cuban business under the act (Preeg 1999).

1996: Passage of the Cuban Liberty and Democratic Solidarity Act ("Helms-Burton Act")

This act corresponded with a stark expansion of U.S. sanctions against Cuba prompted by the downing of a Cuban exile group's airplane over international waters by Cuban military aircraft. The act is organized into four titles, as follows:

- Title I requires U.S. representatives of international financial institutions to oppose Cuban membership within their respective organizations and restricts U.S. payments to institutions that provide assistance to Cuba over U.S. objections.
- Title II makes removal of sanctions dependent ("contingent") on the settlement of all outstanding claims on U.S. property expropriated in Cuba (property rights provisions are extended to Cuban exiles who have become U.S. citizens). The president must determine that a "Transition Government" is in place in Cuba prior to removing sanctions. Fidel Castro and his brother Raul are explicitly excluded, by name, from any legitimate "Transition Government."
- Title III permits U.S. nationals to sue Cuban government entities and third-party foreign investors over profits earned from the use of confiscated properties previously owned by U.S. nationals.
- Title IV denies individuals who "traffic in" U.S.-claimed properties in Cuba both visas to enter the United States and entry into the United States.

The Helms-Burton Act generated controversy among many U.S. allies due to its extraterritorial nature. U.S. sanctions imposed on Cuba were now, in essence, extended to other countries trading with or conducting business with Cuba and the United States. Canada and Mexico quickly passed "antidote" legislation in response to Helms-Burton, while the European Union requested dispute-settlement consultations with the United States through the World Trade Organization.

Canada added an amendment to its 1992 Foreign Extraterritorial Measures Act (FEMA), which requires Canadian companies (including U.S. subsidiaries) to ignore any instructions not to trade with Cuba. The amendment strengthened protections for Canadian companies doing business with Cuba, making any Helms-Burton legal judgments unenforceable in Canada and enabling Canadians sued in the United States to recover settlements from their opposing party's Canadian assets. Thus, the 1996 amendment to FEMA made actions taken against Canadian companies under Helms-Burton illegal in Canada.

Mexico joined Canada in responding to Helms-Burton by passing the Law to Protect Trade and Investment from Foreign Laws that Contravene International Law. This measure provides for the levying of fines on Mexican companies that comply with Helms-Burton and other similar laws. As with the Canadian statute, the Mexican law refuses to recognize or enforce foreign judgments based on laws like Helms-Burton.

The European Union's WTO dispute-resolution request resulted in the "EU-U.S. Understanding of May 18, 1998." The EU agreed to develop "rules regarding investment projects dealing with illegally expropriated properties," while the Clinton administration agreed to ask Congress for authority to waive restrictions under Titles III and IV.

Cuba, recognizing the potential chill the act could have on valuable foreign investment, developed its own legislation to counteract the extraterritoriality of Helms-Burton. Law 80, the Reaffirmation of Cuban Dignity and Sovereignty Law, requires the Cuban government to do what is necessary to protect all current and potential foreign investment in Cuba, including legitimate interests threatened under Helms-Burton (Spadoni 2001). One such action deemed necessary by the Cuban government pertains to limiting the release of data on foreign involvement in the Cuban economy. Data on foreign direct investment, for instance, is viewed as potentially harmful to investors given the extraterritoriality of U.S. sanctions law, and thus the Cuban government does not reliably or regularly provide it (Spadoni 2001).

1998: Passage of the Omnibus Appropriations Act

Under Section 211 of this law, all trademarks that previously had been abandoned by their original owners as a result of Cuban property confiscation cannot be registered or renewed in the United States, and U.S. courts cannot recognize or enforce rights associated with these trademarks. In July 1999, the European Union filed a WTO complaint contending that this act does not conform to "U.S. obligations" under the WTO Agreement on Trade Related Aspects of Intellectual Property Rights.

1998: Implementation of Humanitarian Policies

The Department of Commerce and other federal agencies implemented policies in 1998 to make it easier to acquire humanitarian medical licenses and export medical supplies and equipment for donation or non-governmental sales.

2000: Passage of the Trade Sanctions Reform and Export Enhancement Act

Signed by President Clinton, this law relaxed unilateral sanctions imposed on several countries (including Cuba) to allow conditional sales of food, medicine, and some medical equipment. Direct or private export financing for this trade is prohibited, however, effectively nullifying the act's impact due to Cuba's hard currency shortages and abysmal debt rating.

Potential Legislation and Activities Concerning Sanctions Against Cuba

The Cuba Working Group. On 21 March 2002, a bipartisan group of members of the House of Representatives led by Jeff Flake, R-Ariz., and William Delahunt, D-Mass., announced the creation of the Cuba Working Group, comprising 17 members each from the Republican and Democratic parties, largely from agricultural states (but none from Florida). The group's stated goals are to ease or eliminate travel restrictions and increase U.S. exports of agricultural products. The group is conducting its own review of U.S. policy

toward Cuba and is interested in winning House approval to prohibit the use of funds to enforce restrictions on travel to Cuba--a backdoor approach to limiting the impact of sanctions. (Willis 2002).

The Cuban Diaspora and the Cuban American National Foundation. It is important to recognize the critical role played by the Cuban diaspora, particularly that located in South Florida, in U.S. economic sanctions policy toward Cuba (Ratliff and Fontaine 2000). Despite opposition to U.S. sanctions by politicians as well as key business groups, a well-organized and politically savvy Cuban exile group has proven successful at persuading lawmakers to maintain pressure on Cuba in the form of sanctions (Erickson 2002). The Cuban American National Foundation is the most vocal and best-known group representing the pro-embargo interests of the exile community, and it supports research and lobbies lawmakers to that end. Dennis Hays, executive vice president of the foundation, said in a meeting of the InterAmerican Dialogue (Hays 2002) in Washington, D.C., that his organization supports continued sanctions against Cuba in order to restore democracy and protect human rights. At the heart of the foundation's concerns is compensation for property confiscated by the state in the revolution.

Notwithstanding the group's calls for continued pressure on Cuba via sanctions, its members, according to Hays, privately send remittances to friends and family within Cuba, actions that effectively weaken the impact of sanctions. The foundation's monolithicism has been called into question recently--a rift apparently has emerged between the founders of the group, who espouse a strong anti-Castro stance, and younger Cuban-Americans (Erickson 2002).

During former President Carter's humanitarian visit to Cuba in 2002, the Castro regime demonstrated unprecedented openness in allowing public discussion of sensitive topics such as the Varela Project, a dissident group pressuring the regime for political and social reforms. Carter called for closer U.S.-Cuba ties in terms of travel and other exchanges as the best policy for ensuring a stable transition to a new government (Carter 2002). Observers note, however, that Castro likely will remain in power throughout his lifetime (Dominguez 2002).

On the heels of Carter's visit, President Bush announced a commitment to current U.S. sanctions policy toward Cuba until democracy and full protection of human rights are restored--a reiteration of the requirements under Helms-Burton. The fact that the president's brother is facing re-election as governor of Florida, where support from the Cuban diaspora is considered crucial, has not gone unnoticed by observers of U.S. sanctions policy (Coughenour 2002). Once the election has passed, perhaps the Bush administration will consider normalizing relations with Cuba.

THE DIRECT IMPACT OF SANCTIONS ON CUBA AND THE UNITED STATES

Historically, trade between the United States and Cuba consisted primarily of exchanges of Cuban agricultural products (sugar and tobacco) for American grains, timber, and manufactures. The United States also was a leading destination for Cuban tourists. Prior to the revolution, the United States dominated Cuba's trade, supplying and receiving more than two-thirds of its imports and exports, and provided the lion's share of public and private capital to the island. Cuba, on the other hand, represented only a fraction of U. S. trade in the pre-embargo period--less than 5% of U.S. exports and imports (USITC 2001). This trade and investment relationship changed sharply after the revolution, owing initially to political risk and its impact on potential investors and later to sanctions imposed by the United States on Cuba.

Econometric Analyses and Estimates of the Direct Impact of Sanctions on U.S.-Cuban Trade

The most comprehensive and up-to-date empirical study of the economic impact of U.S. sanctions on Cuba was conducted by the ITC under the direction of the House Ways and Means Committee. The time period for the study is 1960 through the implementation of the Helms-Burton Act, with a historical examination of the period 1960-1995 and an economic impact assessment for 1996-2000 (assuming no policy changes in Cuba). Average trade data from 1996-1998 were used in creating estimates of sanctions' impact on trade.

The ITC used a gravity model to estimate the quantitative impacts of sanctions on bilateral trade and investment, a common practice in such analyses. The study explicitly incorporated other previous econometric analyses of sanctions. Scarce official data on Cuba's economy and its external trading relationships were augmented for this study with primary research by ITC staff, testimony from a public hearing in September 2000, written submissions from the public, an informal telephone survey of more than 200 U.S. companies and associations, and a review of the relevant economic literature. The analysis excluded trade in military goods and goods subject to U.S. export controls.

U.S. exports to Cuba in 1999 totaled \$4.7 million. Donated goods--\$2.4 million in medical/pharmaceutical products, \$1.6 million of relief/charity items, and just under \$200,000 in clothing--comprised 90% of this amount. The 1997 figure includes \$7.4 million in medical goods, while the higher figure for 2000 (compared to 1999) is due to increased relief/charity exports. Imports from Cuba are almost 100% artwork (USITC 2001).

Based on average trade data from 1996-98, the ITC estimates annual U.S. exports to Cuba in the absence of sanctions at between \$658 million and \$1 billion. This equates to at least 17% and as much as 27% of total Cuban imports, though less than 0.5% of total U.S. exports. Using the same trade data (1996-98), the ITC estimates that U.S. imports from Cuba without sanctions (excluding sugar) would be between \$69 million and \$146 million per year. These amounts represent 7% to 15% of total Cuban exports, but less than 0.5% of total U.S. imports. When contrasted with pre-sanctions bilateral trade figures, it becomes clear that both Cuba and the United States have diversified and diverted their trade and that the impact of lifting sanctions in net trade terms would be far smaller than historic bilateral trade statistics would indicate.

The ITC study also estimates that in the absence of sanctions, tourism and travel receipts generated by Cuba would total \$100-350 million, a potentially important addition to the nation's foreign exchange earnings. Currently, tourism is the nation's largest earner of foreign exchange, larger even than sugar. The other important service sector likely to be affected by a lifting of sanctions is telecommunications; the ITC estimates that some \$15-30 million in additional net foreign exchange could be earned by Cuba (USITC 2001).

A gravity model study by Hufbauer, Schott, and Elliot (1990) indicates that in the absence of sanctions, U.S. exports to Cuba in 1987 would have totaled \$432 million as opposed to the actual \$1 million figure. This figure was derived by using actual OECD exports to Cuba, then assuming the 49% U.S. share of OECD exports to "non-OECD America." Another analysis estimated the value of lost U.S. exports to Cuba at \$1 billion in 1995 (Hufbauer, Elliot, Cyrus, and Winston 1997). Preeg (1999b) estimates annual losses at around \$1 billion. Despite differences in data sources and assumptions among the analyses, estimates of the impact of sanctions are consistent: in dollar terms, the effect on the U.S. economy is negligible, but relatively strong on the Cuban economy.

The ITC study points to four main barriers to potential trade between the United States and Cuba. First, investments in productive capacity in Cuba have not kept pace with equipment depreciation, much less increased capacity on the island (Dominguez 2002). As a result, any increases in production geared for export to the United States would come at the expense of domestic consumption or be diverted from trade with other nations. This situation is exacerbated by the second barrier, continued restrictions on foreign investment in Cuba. Despite significant liberalization over the past decade to attract foreign investment, the political risk of "doing business with Castro" (Fisk 1999) and concerns about weaknesses in domestic demand and the supply of inputs and trained labor have limited foreign investment, which has not been sufficient to boost productive capacity in Cuba to warrant expanded exporting. Third, the island is constrained in terms of foreign exchange and is considered an unworthy credit risk in global lending markets because it suspended debt servicing on foreign loans. This situation makes import expansion difficult if not impossible. Finally, the Cuban government, having twice suffered the consequences of over-reliance on a single trading partner, made an explicit decision to diversify trade among a variety of trading partners, despite potentially negative short-term economic consequences (USITC 2001).

Thus, even if the United States dropped its sanctions on Cuba, little impact on bilateral trade would result. Any impact would come, at least in the short and perhaps medium term, at the expense of domestic consumption--which Triana Cordovi (2001) notes is already at a bare minimum--or, more likely, at the expense of trade with other nations.

The overall impact of sanctions as calculated by the ITC (and others as reported previously) are overshadowed by the \$67 billion Cuban government estimate of the cumulative impact since the imposition of U.S. sanctions four decades ago (USITC 2001). That estimate includes losses from reduced trade and tourism, higher shipping costs due to the limitation on vessels traveling between Cuba and the United States, the inability to access spare parts, foreign debt considerations, assets frozen in U.S. banks, and the "brain drain" from Cuban exiles living in the United States. This loss estimate, however, excludes economic benefits to Cuba provided via Soviet assistance during much of the sanctions period. The political significance of the disparity between Cuban estimates of the costs of sanctions and those of the United States lies in the Cuban stance that any U.S. claims for reparations for expropriated property in Cuba must include compensation to

Cuba for costs exacted under sanctions. The economic validity of these additional sanction cost claims by Cuba are discussed next.

Cuban Estimates of Impacts

Claims by the Cuban government of losses due to reduced trade and tourism rely on the difficult-tomeasure yet anecdotally supported notion that when an economic superpower (such as the United States) sanctions a country, it has a chilling effect on firms and citizens of other nations. Given the extraterritorial reach of U.S. sanctions on Cuba, this claim is not unfounded. Empirically assessing the impact of any such effect would require establishing an accepted baseline of trade with the United States in the absence of sanctions, as is routinely done in gravity model estimations of sanctions' impact. Once such a baseline is established, second-stage gravity models for other Cuban trading partners could be performed to gauge the level of trade diverted away from Cuba by U.S. sanctions.

Reduced trade with other countries may have further negative effects on the Cuban economy due to multipliers from upstream and downstream industry associated with foregone investments in the nation. Multipliers in the tourism sector are believed to be relatively weak (Carranza Valdez 2001; Marquetti Nodarse 2000), so any chilling effect on tourists from outside the United States would likely be limited to that sector.

The Caribbean region is dominated by well-established shipping networks (DuBois 2002). Most shipments traverse the Caribbean basin prior to arrival in the United States (the dominant trading partner in the region) or vice versa in order to enjoy economies of scale or scope in freight. Even when goods are bound to or from other markets, such as the EU, the United States may be transited en route. Cuban imports and exports are effectively denied participation in these shipping networks due to the 180-day restriction on vessel landings between Cuban and U.S. ports. Thus, Cuban goods must travel via dedicated shipments that forego stops in the United States-a costly proposition for Cuban traders.

A significant portion of the productive capacity in Cuba--in terms of plants and equipment, machinery, and vehicles--is of U.S. origin. Some of this capacity was purchased from the United States prior to the embargo; goods procured after the embargo took effect (which, by definition, were produced outside the United States) often hailed from U.S. subsidiaries abroad. Recall that these subsidiaries were not denied the right to trade with Cuba until the first extraterritorial extension of U.S. sanctions law in 1963. This restriction on subsidiaries was significantly loosened in 1975, then replaced with a specific trade license later that year. Not until 1992 (with the passage of the Toricelli Act) was the extraterritorial restriction on U.S. subsidiaries operating abroad reinstated. Thus, during the embargo period, U.S. subsidiaries abroad were entitled to supply productive capacity to Cuba for some two decades altogether.

By denying the Cuban economy access to spare parts to refurbish and maintain its plants and equipment, the embargo effectively hastened the rate and scope of depreciation of Cuba's productive capacity. To measure this depreciation would require an understanding of the uniqueness of U.S. plants and machinery in Cuba and the extent to which parts from non-U.S. sources could substitute directly or be adapted to suit the repair and maintenance needs of Cuban productive assets. A fair and thorough assessment of this impact of U.S. sanctions would naturally require consideration of U.S. spare parts smuggled into Cuba through third countries. Such an analysis is beyond the scope of this presentation.

A nation's creditworthiness owes directly to a lender's assessment of the country's ability to generate the revenues needed to service debt obligations. For Cuba, denial of access to the United States clearly limits its ability to generate revenues efficiently. Concerns about political risk in Cuba are voiced publicly in policy circles in Washington, D.C., further eroding lenders' confidence in the creditworthiness of the Cuban government. Since U.S. commercial lenders are the most active and important throughout the Caribbean basin area, denial of access to these sources of credit limits Cuba's ability to leverage funding to grow.

A frank assessment of Cuba's ability to secure credit would likely conclude, however, that the country's largely anti-market policies create bureaucratic inefficiencies that limit the growth of many sectors of the economy. The Cuban government's repudiation of external debts during the 1990s, coupled with its disinclination to submit to the financial discipline required for membership in multilateral institutions such as the World Bank and IMF, likely have done much more than U.S. sanctions to deny Cuba access to credit from abroad.

The U.S. government has frozen assets linked to Cuba and holds \$178.2 million (including accrued interest) as of January 1998 (OFAC 1998). Although these assets are accruing interest, they cannot be put to productive uses by Cuba. The overall impact on the Cuban economy from denied use of these funds is not large, however.

The Cuban exile community in the United States is sizeable, representing nearly 5% of the electorate in Florida alone, and many of these individuals benefited from investments by the Cuban government in their education. They are recognized as an entrepreneurial group with significant drive, though whether their temperament would have served a socialist Cuba well is debatable. Although they took their educations with them to the United States, they often left productive assets and real estate behind. The quantifiable impact of this "brain drain" on Cuba is difficult to ascertain but must be weighed against the productive assets abandoned in Cuba and tempered by questions about what sort of environment best allows an individual to achieve his or her potential.

Direct Trade Impact of Sanctions on Specific Sectors

Although the net trade impact of sanctions is small (Suchlicki 2000), the ITC study notes that certain sectors are particularly affected by sanctions. U.S. producers of agricultural products such as dairy goods, rice, and dry beans could benefit from a lifting of sanctions against Cuba, as could providers of transportation services to support increased tourism in Cuba. U.S. communications exports would likely be constrained due to foreign investment that has already taken place in Cuba (USITC 2001).

As for Cuban agricultural and manufacturing products, citrus, tobacco, and cement would all find the United States to be an important export market. Lifting sanctions would not appreciably increase prospects for Cuban services with the possible exceptions of entertainment- and health-related exports. Tourism, the sector targeted by the regime for priority development, paints a mixed picture. Although significant short-term demand exists for travel to Cuba--on the order of a million tourists annually--many expect those numbers to fall once pent-up demand for visits to Cuba has been satisfied. Other than visits by friends and family in the exile community, gains in this sector would come at the expense of tourism to other countries within the region, particularly nations such as Mexico and the Dominican Republic that depend heavily on tourists from the United States (Crespo and Suddaby 2000). Cultural, hunting, medical/health, and other specialized travel packages represent important opportunities to market to a yet-untapped U.S. client base (USITC 2001).

Most observers believe that U.S. sanctions have not significantly dampened the growth of tourism in Cuba (Crespo and Suddaby, 2000). Growth in the sector averaged 23% in the 1990s, with revenues of \$2 billion in 2000 (Canadian Trade and Economic Section 2001). Current economic prospects do not appear to support such robust growth for the future. Portela (2002) reports that 2001 tourism figures for Cuba were flat over 2000 and arrivals in the first quarter of 2002 are down 14.4%.

Resistance to lifting sanctions by Sen. Jesse Helms of North Carolina (an important tobacco-growing state) and Florida politicians (given their state's dependence on citrus exports and tourism) is not surprising. As noted by the 2000 legislation relaxing sanctions on exports of food and medical supplies to Cuba, these sectors hold great promise for normalized relations because of their importance to the U.S. economy and their political sway--no side in the debate on sanctions against Cuba wants to be accused of denying food or medicine to a needy Cuban public.

"Special" Sectors: Food and Medicine

In light of the unique importance of food and medicine, the Stern Group conducted a study to assess the impact of lifting sanctions on these sectors under three scenarios (Stern Group 2000). One scenario projected U.S. sales to Cuba in the first year following passage of the then-pending Trade Sanctions Reform and Export Enhancement Act, which partially lifted restrictions on U.S. food and medical sales to Cuba. The second scenario projected sales to Cuba after five years of partial liberalization, which would be the likely time frame for U.S. suppliers to gain market share in Cuba. Market share estimates were based on average market shares of 60-70% for U.S. exports to other Caribbean countries. The third scenario assumed unrestricted trade in both sectors, including the removal of credit and financing prohibitions, the use of approved intermediaries in both sectors, and the opening of all related sectors. This scenario explicitly recognized positive spillover potential from related industries, such as tourism.

The estimated trade impacts in these sectors range from \$400 million to \$1 billion annually in agricultural exports and \$20 million to \$600 million in medical exports. In aggregate, this study finds that trading in these two sectors alone would generate as much as \$444 million in U.S. exports and create as many as 6,000 U.S. jobs under partial liberalization, rising to highs of \$1.6 billion in aggregate exports and 20,000 jobs under a complete lifting of restrictions.

Even in these sectors, where significant gains (or losses) could be expected from the lifting of sanctions, the trade picture pales in comparison to some of the more important indirect impacts of sanctions on Cuba. We will discuss these effects next.

THE INDIRECT TRADE IMPACTS OF SANCTIONS ON CUBA AND THE UNITED STATES

Assessing the indirect trade impacts of U.S. sanctions on Cuba again involves analyzing two time periods: the era of Soviet support and the period after withdrawal of that support. We first address the contemporary period, then note the indirect trade impacts in the period under Soviet support.

Higher Costs of Trade and Consumption for Cuba

Sanctions on Cuba clearly have increased the costs of exports to the island since the Soviet withdrawal. One source of increased costs stems from removing the competition provided by U.S. suppliers, resulting in higher prices charged by alternative suppliers. Transportation costs are higher due to restrictions on shipping between Cuba and the United States within a 180-day window, effectively disrupting normal shipping patterns and requiring that special shipments be made solely to Cuba. Borrowing costs also are higher because of the lack of access to U.S. financial institutions for funding. Non-monetary costs to Cuban consumers take two forms: fewer goods and services from which to choose and frustration caused by lack of access to U.S. goods (identified in communications between the Cuban exile community in the United States and their friends and family on the island).

On the export side, Cuba is denied access to its natural market, the United States, the largest market in the world for many goods and services and the largest in the region for nearly all sectors of the economy. By denying Cuba the ability to sell to this large and wealthy market, U.S. sanctions effectively limit the ability of Cuban producers to operate at the efficient scale that only access to a large market like the United States can justify. Thus, the cost of goods produced for export by Cuba are higher than those produced elsewhere in the region by firms that can enjoy scale economies by selling to the United States. Similarly, since U.S. consumers are not competing to purchase Cuban-made goods, there is likely a dampening of prices for Cuban exports to other markets.

Diversion of Cuban Trade from the United States

During the period of Soviet support, the Soviet bloc and member countries of the Council for Mutual Economic Assistance (mostly Soviet-bloc nations, but also Mongolia and, until 1961, Albania) became Cuba's major trading partners, largely replacing all pre-embargo trade with the United States. Commerce in sugar and oil--Cuba's predominant export and import--was diverted to the Soviet bloc, with little or no loss in volume in either direction. Thanks to subsidies and preferential trading treatment, Cuba earned as much or more income from sugar exports to the Soviets as it had under the U.S. quota system. Energy was procured at favorable rates as well, generally less than the market-based prices paid prior to 1960.

Despite assistance from the Soviet Union during the years 1960 to 1990, the Cuban economy remained small relative to its Latin American neighbors. Its economy depended directly on aid from, and subsidized trade with, the Soviet Union and its satellite states.

The one sector in which Cuba experienced net trade losses during the period of Soviet support was tourism, where lower-end Soviet tourists replaced premium-service travelers from the United States. In the late 1950s, some 300,000 U.S. tourists visited Cuba annually, but during the 1960-1990 period fewer than 30,000 Soviet-bloc tourists visited Cuba each year (USITC 2001). The withdrawal of U.S. tourism firms (and the reputed involvement of U.S.- based organized crime in the tourism and related entertainment trade) shifted the nature of Cuban tourism after the imposition of the U.S. embargo to a more basic, budget-conscious fare. Although some tourists from non-Soviet bloc countries continued to visit Cuba, the incomes generated in the sector declined in this period.

After the Soviet withdrawal in 1990, the Cuban government explicitly liberalized the tourism sector with the intention of attracting foreign investment to rejuvenate and upgrade tourism offerings. Like many nations in the region, Cuba boasts a tropical climate, lovely beaches, and marine resources for diving and fishing. However, given the fiercely competitive nature of tourism in the Caribbean basin region, particularly in better-developed, upscale tourist destinations such as Mexico and the Dominican Republic, Cuba has found

itself severely disadvantaged in terms of its tourist infrastructure. Although the liberalization measures have had a positive impact on investment in the sector, producing growth in tourism receipts in the 1990s, many observers note that Cuba's infrastructure and staff quality still are not on a par with better-known tourist destinations in the region. Statistics on return visits, length of stay, money spent during stays, and occupancy rates in Cuba all trail averages for the region as a whole (Crespo and Suddaby 2000).

Cuba has adopted an explicit trade policy of avoiding dependence on a particular trading partner (USITC 2001). As such, the country knowingly engages in trading relationships that may not be the most economically efficient (Jatar-Hausmann 1999). On the import side, Cuba has instituted policies aimed at promoting economic self-sufficiency, but these policies generally have been unsuccessful. Cuba remains dependent on external sources for most goods, although declining financial resources and limited access to credit produced a decline in merchandise imports from a 1990 level of \$4.6 billion to a 1999 level of \$3.99 billion (World Bank 2001). An oil pact with Venezuela fell apart in June 2002 (*Wall Street Journal* 2002a), leaving the island in the difficult position of having to further reduce domestic energy consumption (with obvious hardships for citizens) and thus dampen local production, particularly in energy-intensive sectors such as sugar refining.

Nor is the island self-sufficient in food production (Canadian Department of Foreign Affairs and International Trade 1999). Imports of basic grains, meat, and dairy products are required to satisfy even the meager caloric intake of Cuban citizens, and declines in agricultural output and productivity over the past decade point to a likely need for such imports well into the future. Although Cuba's agricultural imports from the European Union were down in every category in 1998-99, they still were higher than 1990 levels (FAS 2000). Some agricultural imports take the form of donor aid from other countries, while the remainder use scarce foreign exchange resources.

Cuba is thought to be successful in trading with foreign firms to fill gaps in its domestic production that previously were filled by U.S. firms (Hufbauer et al. 1997). It is believed that there are few capital or other goods that Cuba is unable to acquire from sources outside the United States (Hamilton 1999).

In terms of exports, key sectors in Cuba have suffered from input scarcity (especially energy and raw materials), depreciated and/or inefficient production processes, and climatic conditions (e.g., droughts and hurricanes), so overall production levels are down. Declines in production are borne largely by rationing domestic consumption (Trianis 2001) but are also reflected in falling export levels. From 1990 to 1999, Cuban merchandise exports dropped from \$5.1 billion to \$1.6 billion, contributing to an overall trade deficit of more than \$2.3 billion in 1999 (World Bank 2001). Exports that would be targeted to the United States in the absence of sanctions are being diverted to other markets (albeit on potentially less favorable terms) and are not boosting local consumption.

The overall trade cost of sanctions to Cuba as estimated by the Institute for International Economics shows Cuba's exports and imports are both down. Most imports that would be purchased from the United States are acquired elsewhere, not produced locally, but financial hardship and a general lack of access to credit make import purchases difficult for Cuba.

Displacement of U.S. Exports by Cuban Exports

The most compelling potential indirect trade consequences for the United States of sanctions against Cuba stem from the displacement of U.S. exports by Cuban exports in third-country markets. In sectors such as sugar, citrus, and possibly tourism, Cuba may be crowding out otherwise competitive U.S. producers.

INDIRECT NON-TRADE IMPACTS OF SANCTIONS ON CUBA

As we noted previously, the direct trade impact of sanctions on Cuba, although somewhat large relative to the size of the Cuban economy, is not as great as might be expected from such a sweeping embargo. This impact, however, is compounded by other factors inhibiting trade by, and investment in, the island nation. These inhibitors include productive capacity constraints, limited foreign investment, a lack of hard currency, and an explicit Cuban trade policy that favors dealing with a host of trading partners (Falcoff 2000; Seiglie 2001).

In sum, the loss of Cuba's "natural trading partner" (Preeg 1999) has repercussions beyond the direct trade impact estimated previously. Although the economic consequences of these indirect effects are hard to quantify, we shall outline the additional areas in which sanctions have affected Cuba.

Negative Impacts on Investment

While actual cases under Helms-Burton have been rare, the act does provide for extraterritorial sanctions against firms and individuals doing business in Cuba. Antidote laws in Canada, Mexico, and Cuba itself, along with EU moves in multilateral trading fora such as the WTO, have dampened the impact of Helms-Burton on foreign investments in Cuba. Nonetheless, Helms-Burton undoubtedly has had somewhat of a chilling effect on foreign investment in Cuba by high-profile firms seeking favorable treatment in the United States (or in venues where the United States wields important influence, such as the World Bank).

The Cuban domestic market is not very large, by world or even regional standards. Foreign direct investment in a country typically is influenced by (among other factors) access to a large domestic market or export markets easily serviced from that nation. In the absence of sanctions, Cuba could represent an obvious production platform for entering the U.S. market. Caribbean basin countries have used this argument successfully to promote foreign investment in key sectors such as textiles and data processing.

Furthermore, firms are recognizing the opportunities provided by enhanced regional integration for specialization and rationalization of production across the Americas. Tourism alone represents an important missed opportunity within this context, given high disposable incomes in Europe and geographic proximity that would allow a coupling of travel between Cuba and the United States for travelers from Europe and elsewhere if direct flights were available. Sanctions limiting trade and shipping between the United States and Cuba have thus taken Cuba out of contention for many investments in the region.

Even where investments have taken place in Cuba, lack of access to the U.S. market has deprived the island of offering the value-added activities that serve as an engine for enhanced economic growth. An illustrative example is the case of nickel. Canadian interests have invested heavily in nickel extraction in Cuba. The raw materials are exported to Canada, where they are processed for re-export to other countries as intermediate and finished goods. The United States imports nickel-based products from Canada, effectively diverting trade and thus value-added production from Cuba to Canada.

It is likely that these extra indirect costs to Cuban consumers will persist well into the future, since Cuba explicitly avoids relying on a single (or a few) trading partners. The Castro regime has made it clear that it is willing to pay a higher price for imports (and/or earn a lower price for exports) in pursuit of this trade diversification dictum.

Strategic Costs: Denying Cuba Full Advantage from Its Investments in Development

Perhaps the greatest cost of sanctions borne by Cuba stems from the vast investments the nation has made in higher education and health care. In keeping with its socialist philosophy, the country has allocated scarce funds to encourage advances in medicine and train professionals in a variety of sectors, particularly medicine. Given the market potential presented by rising health care costs in the United States, sanctions have eliminated opportunities for Cuba to reap direct commercial rewards for its cumulative investments. Ironically, areas in which Cuba has demonstrated a global competitive advantage through investment prioritization are also areas with significant market needs in the United States--a trading opportunity that sanctions preclude.

In a related vein, Cuban enterprises (state-owned or otherwise) are denied access to resources from potential commercial/strategic partners in the United States. Since all firms possess unique complements of resources, technologies, and talents, many optimum partners for Cuban enterprises likely reside within the United States. Sanctions deny firms in both countries the fruits of collaboration among enterprises with synergistic resources.

Benefits to Cuba of U.S. Sanctions

It is wrong to conclude that U.S. sanctions work only to the detriment of Cuba and, in particular, the political needs of the Castro regime. For a government facing an increasingly discontented public, the opportunity to point to U.S. economic sanctions as the root of all problems is a welcome benefit. Many observers in the United States as well as representatives of dissident groups within Cuba claim that the ability

of the Castro regime to blame society's ills on U.S. sanctions causes far more harm to the United States than the direct or other indirect impacts of sanctions.

Furthermore, by inciting feelings of sorrow and familial obligation, U.S. sanctions have prompted the diaspora to send a considerable amount of money, denominated in dollars, to Cuba. Some have estimated that annual remittances exceed \$1 billion per year (Jatar-Hausmann 1999), an important amount of funding for the Cuban economy that has an obvious dampening effect on sanctions (the direct trade loss effects are roughly equivalent in size). Without the economic hardship suffered under sanctions, it is likely that these funds from abroad would diminish--remittances were a fraction of today's levels during the Soviet subsidy period, when the Cuban economy was growing. Remittances are viewed by the diaspora as charitable acts in support of beleaguered family members and friends in the homeland (Council on Foreign Relations 1999). Such charity could be replaced by direct investment in a non-sanctioned Cuba. More immediately, though, if the lifting of sanctions allows for economic prosperity on the island, remittances from the diaspora will not be needed.

INDIRECT EFFECTS OF SANCTIONS ON THE UNITED STATES

In addition to the direct trade impacts of sanctions on the U.S. economy, there are additional effects that warrant discussion. We summarize these effects in this paper.

Market Lockout

Sanctions clearly have directly curtailed U.S. private investment in Cuba and likely will dampen investment prospects for U.S. firms long after they are lifted. As we noted previously, economic problems in Cuba, particularly in the post-Soviet period, reduced investments in infrastructure and productive capacity. Physical infrastructure, power generation, and telecommunications are hungry for investment in Cuba and are areas in which U.S. firms have demonstrated a competitive advantage. However, strategic windows exist for investment in these sectors. Once foreign firms have entered the Cuban market, U.S. firms will be effectively closed out from current opportunities (Preeg 1998). The impact will linger in the form of exclusion from participating in follow-up projects, supplying replacement parts, and so on.

A similar phenomenon can be expected in the tourism sector. Once premium locations are purchased by foreign firms, U.S. businesses will be playing a catch-up game that will be very challenging given the correlation between choice location and occupancy/profitability. Concerns also may arise due to U.S. firms being characterized as potentially unreliable suppliers, with long-lasting implications (Kittredge 2001).

U.S. firms' business opportunities in Cuba after sanctions are lifted will also be limited by lost learning opportunities. Foreign firms currently active in Cuba are helping to shape the economic environment through their dealings with upstream and downstream enterprises and relations with key players in the market. These foreign firms are taking risks that will be repaid through customer and supplier loyalty in the future. They are also learning what makes for a successful endeavor in the unique market that is Cuba--learning how to deal with heavy state participation, an inadequate infrastructure, scarce resources, and the psyche of the Cuban consumer. This intimate yet tacit knowledge of a market's conditions requires firms to make significant investments in time and other resources. It is difficult at best (and often impossible) to jump this learning curve upon entering a market, despite the resources or other strengths a U.S. firm might bring to the table. Thus, U.S. firms likely will suffer the consequences of non-engagement in Cuba well beyond their initial forays into the market.

U.S. firms are also locked out of opportunities in other markets as a result of sanctions against doing business with Cuba. Preeg (1999b) points to the example of U.S. firms not being able to bid on projects for airline maintenance that require pan-regional service coverage to qualify for bidding. In this case, U.S. firms must walk away from potentially significant non-Cuban business since they cannot legally provide seamless service coverage to the tendering organization. A similar case involves Florida-based Gruman Worldwide Limited, which cannot service its clients abroad that are seeking assistance in collecting commercial debts in Cuba (USCTEC 2000).

Another aspect of sanctions that has a negative effect on U.S. firms concerns research and development (R&D) trajectories. In many industries, global research consortia have been created to allow for economies of scale and scope as well as specialization in innovation. Global R&D teams within and across organizations are becoming the norm for a wide range of product and process innovations. In certain industries, perhaps most notably biotechnology, pharmaceuticals, organic agriculture, and food production,

other innovations. By restricting collaboration among organizations actively pursuing these innovations, U.S. sanctions may be preventing U.S. firms from developing important new products. At the most extreme level, prohibiting such collaboration among Cuban and U.S. firms may jeopardize human (or animal or plant) health on a global scale by reducing the likelihood of treatment discovery.

Piracy and Other Intellectual Property Rights Violations

The United States produces products (such as software) that are recognized global leaders in their sectors (e.g., Microsoft's Windows operating system). It is in the best interests of the United States to ensure the continuity of such leadership by U.S. firms. However, given the embargo on sales of such products to Cuba, U.S. policy effectively promotes the illegal copying of protected goods. Cuba refuses to support intellectual property violation claims for these goods in light of the embargo.

Subsidiary Fire Sales

From 1963 to 1975 and again since 1992, U.S. sanctions against Cuba have applied as well to U.S. subsidiaries located overseas. Many subsidiaries were actively doing business with Cuba prior to the imposition of sanctions, putting their parent companies in a difficult situation when the sanctions took effect. Their holdings of these subsidiaries suddenly were illegal, forcing them to conduct a sort of "fire sale." Many foreign competitors were able to purchase the subsidiaries at prices well below their fair market value.

Loss of Prestige and Global Leadership

The United States has suffered politically on the world stage as a result of sanctions imposed against Cuba. Of particular note in this regard is the extraterritoriality provision of Helms-Burton, which runs counter to well-established international law. In international venues such as the United Nations and the World Trade Organization, the United States has consistently received little or no support for its sanctions policy, even from traditional allies. What makes the extraterritorial application of sanctions (or the threat of same) by the United States particularly egregious is the fact that the United States has argued against such actions by other states, as in the case of the Arab League's boycott of Israel (Bergsten 1998).

Global leadership by the United States is further strained by its unilateral stance on Cuba. The National Association of Manufacturers' position on the imposition of unilateral economic sanctions echoes this concern: "[The United States'] resort to unilateral sanctions can only be explained in terms of a failure of leadership and a subsequent decision--in light of that failure--to go it alone" (NAM 1999).

Another inconsistency in U.S. sanctions policy is the continued listing of Cuba as a state-sponsored terrorist nation, despite no evidence of such acts by Cuba in recent years. By retaining Cuba on this list, the United States provides no incentive for active state sponsors of terrorism to mend their ways (Haass and O'Sullivan 2000). Critics point out that the United States has granted normalized trading status to Vietnam and China despite claims and/or records of limits on democracy and restricted human rights (Erickson 2002). Proponents of normalized relations with those nations argued that closer engagement was needed to demonstrate the benefits of democracy and human rights protection to citizens and leaders in those countries. One wonders why such arguments are not employed more effectively in the case of Cuba. As Richard Haass of the Brookings Institution argues, "American dollars, tourists and ideas constitute a greater threat to Fidel Castro and communism in Cuba than the embargo" (Haass 1998).

A further apparent inconsistency in U.S. policy concerns the requirement that democracy be restored in Cuba as a condition of normalizing relations. It is commonly understood in a democracy that each citizen has a political voice through the right to vote in local, regional, and national elections. However, arcane districting rules as well as voting systems in effect at state and national levels have created a situation in the United States whereby organized and vocal minorities can effect policy choices that support their interests at the expense of majority opinion. Such is the case with the Cuban diaspora, composed largely of (aging) exiles with significant confiscation claims from property abandoned in Cuba or nationalized prior to their departure. This group, concentrated in South Florida, uses districting and voting rules to its advantage to press for retention of the embargo against Cuba. Despite its relatively small numbers and the fact that its stance runs counter to majority opinion in the nation (and, for that matter, in the state of Florida), the diaspora has been successful in countering the basic tenets of democracy in promoting its self-interest. The political leaders of Despite public statements by the Castro regime rejecting any retrenchment of socialist ideals and principles for Cuba (*Wall Street Journal* 2002b; Sandza and Remy 2002), most observers believe that some form of political and economic transition will occur in Cuba--either under Castro or, more likely, upon his death or cession of power. Countries like Canada (Boehm 2002) have recognized the importance of working with Cuba now to plan for transition by providing assistance and training to shape the Cuban state administratively (and, potentially, politically and economically). Canada has long provided such training and aid with the objective of forging an enduring partnership with, if not playing a future leadership role in, Cuba. The United States, on the other hand, lacks such leverage. In summary we quote William Ratliff and Roger Fontaine (2000), who argue that "[U.S. sanctions policy toward Cuba is] so cluttered with contradictions and inconsistencies it has become a dishonest, embarrassing and pernicious policy unworthy of the United States."

Avoiding Bad Loans: A Small Blessing for U.S. Firms

One clear, positive impact of sanctions for U.S. firms stems from restrictions on lending by U.S. financial institutions to Cuba. Given the suspension of debt payments by Cuba in 1986 and the country's inability to fully reschedule or renegotiate with the Paris Club, the likelihood of satisfactory resolution of claims by financial institutions against Cuba is low. U.S. sanctions thus insulated U.S. financial institutions from what likely would have been a large-scale loss on bad debts in Cuba.

THIRD-COUNTRY IMPACTS OF U.S. SANCTIONS AGAINST CUBA

Many of the impacts of U.S. sanctions against Cuba are felt beyond the confines of the bilateral relationship. Threats (and, occasionally, actual cases) of extraterritorial application of sanctions under Helms-Burton are perhaps the most prominent of these third-country impacts. We now highlight some of the more important impacts for particular countries.

Caribbean Basin Countries

The Caribbean basin countries are both blessed and cursed with sunshine and proximity to the United States. Although favorable climates produce ideal conditions for growing tropical products (e.g., sugar, citrus, bananas, coffee, and tobacco) and attracting tourists, geography dictates that these nations are endowed with largely similar resources. Other similarities, especially in cultural and political legacies, have resulted in common development paths focused on a reliance on monocrop exports (and, in countries like Cuba, Jamaica, and Trinidad & Tobago, mineral extraction). The imposition of trade sanctions on Cuba, a relatively large nation in the region, lessened competition for U.S. markets (and U.S. aid dollars) among Cuba's neighbors. Should sanctions on Cuba be lifted, its Caribbean neighbors have the most to lose--especially in tourism and agriculture. Of particular importance to many of these countries would be the redistribution of the U.S. sugar import quota, which would directly and immediately curtail their export earnings in this already beleaguered sector (Council on Foreign Relations 1999).

Major Trade Partners

Major exporters to Cuba that might be displaced by the United States if sanctions are lifted include Spain, Venezuela, Canada, France, and China. Meanwhile, chief importers of Cuban goods--Russia, Canada, the Netherlands, Spain, France, China, and Japan--might have to pay higher costs for these products or find alternative suppliers (CIA 1999). An assessment of potential market share/value shifts is beyond the scope of this exposition, however.

Investor Nations

Nations that have made investments in Cuba in sectors geared toward exports to the United States-including big investors in tourism, agriculture, and cement production, such as Mexico, Canada, Australia, South Africa, Italy, Spain, and the Netherlands--stand to gain the most from the lifting of sanctions against Cuba. Secondary benefits would be enjoyed by firms in sectors benefiting from spill-overs from U.S. export sectors (upstream and downstream industries).

Exile Community Linkages

An open question concerns the potential role of the Cuban exile community in trading relations should sanctions be lifted. Other than the United States, Venezuela and Spain have the largest Cuban diaspora communities. It is possible that with further involvement by the U.S.-based exile community in the Cuban economy, heritage links could benefit Venezuela and Spain as well.

We now turn our attention to conclusions we have drawn regarding the effectiveness of U.S. sanctions against Cuba.

THE EFFECTIVENESS OF U.S. SANCTIONS AGAINST CUBA

In our introduction, we argued for a disjunction of sanctions history at 1990 to reflect the involvement of the Soviet Union in the Cuban economy and Cuban affairs and, later, its withdrawal. This disjunction is particularly important when assessing the effectiveness of sanctions. For our purposes here, we argue that an effective sanction is one that, at a minimum, produces the intended result.

In the 1960-1990 period, the stated objective of U.S. sanctions policy toward Cuba was to contain the threat and spread of communism in the Western Hemisphere. Given the fact that every country in the Americas practices some form of democratic rule, the pre-1990 sanctions appear to have accomplished their objective (Council on Foreign Relations 1999). Furthermore, the Soviet Union was believed to be spending half its foreign aid on Cuba, and this resource drain may have precipitated its fall and helped usher in democracy in the Soviet bloc.

Once the Soviet Union collapsed, many (if not most) observers believed that a socialist Cuba's days were numbered. But national solidarity, coupled with policy flexibility, allowed Cuba to weather the storm in the "Special Period" following the fall of the Soviet Union. The survival of the Castro regime and a socialist economic model in Cuba in the absence of Soviet support required a reassessment of U.S. sanctions policy. U.S. policymakers shifted gears, calling for a return to democracy in Cuba and, subsequently, protection of human rights as the "new" objectives of sanctions against Cuba. An emerging form of "state capitalism" in Cuba, whereby limited economic activity is permitted to ensure the populace's (and the Castro regime's) survival, appears to be holding its own. As recently as June 2002, Castro publicly declared, "Today we are taking another oath ... that we shall be unshakably faithful to the homeland, the revolution and to socialism, that imperialist domination and the capitalist system shall never return to Cuba" (*Wall Street Journal* 2002b).

Most Americans believe the embargo against Cuba to have failed in reaching its stated objectives. The debate over the effectiveness of post-1990 sanctions on Cuba hinges on perceptions of whether sanctions, normalized relations, or enhanced engagement is most likely to produce a smooth, non-violent transition to democracy in Cuba. U.S. policy elsewhere in the world, such as in China and Vietnam, favors enhanced engagement for achieving democratic ends. Canada (among other countries) has chosen engagement with Cuba and is providing training and assistance to help shape and promote a transition to a democratic Cuba. Former U.S. President Jimmy Carter, along with many business, academic, and political observers, has called for the United States to adopt similar measures. The success of the Cuban exile lobby in promoting a continued embargo has ensured that U.S. policy toward Cuba is unique in its insistence on a full return to democracy prior to lifting sanctions.

Remittances, provided largely by the Cuban exile community to friends and family in Cuba, help explain the Cuban economy's staying power. Partly as a result, however, a dual economy has emerged in Cuba, creating extreme social tensions that are likely to produce one of two results. The first scenario envisions a crackdown on economic liberalization to reduce disparities; the second involves some sort of violent overthrow pitting dollarized "haves" against peso-strapped "have nots." Given these scenarios, it appears that some sort of normalized relationship is in the best interest of the United States.

Possible Areas for Normalization

Property claims. Normalizing relations with Cuba will necessitate resolving a significant sticking point: claims by U.S. corporations and citizens for properties nationalized or confiscated after the 1959

revolution. The Cuban government estimates these claims to amount to roughly 50 years' worth of exports by Cuba (Jatar-Hausmann 1999), while the United States Foreign Claims Settlement Commission values the 5,911 certified claims at \$1.85 billion, which includes a permitted interest accrual of 6% per annum (USCTEC 2001c). The Cuban government has settled claims raised in other countries, but argues that the negative economic effects of sanctions (which it estimates at \$67 billion) must be offset against U.S. property claims. The Cuban American National Foundation (the pro-embargo lobby representing Cuban exiles) has stated publicly that private claims of houses can be released, but all commercial claims must be resolved (Hays 2002). An informal market reportedly is emerging in South Florida for buying claim rights of aging Cuban exiles at steep discounts, effectively monetizing these claims (Sanguinetty 2002).

The situation appears ripe for some sort of brokering of key interests between the exile community, which seeks compensation for confiscated property, and the Cuban government, which wants to attract foreign investment and technology. A mechanism whereby joint enterprise rights to former commercial holdings would be granted to former property owners might provide the currency needed to effect a workable solution on the property claims question.

The joint enterprise rights would provide partial ownership of former commercial holdings that would become effective only upon rights holders investing a stipulated amount of capital, technology, or other valuable resources to the venture controlling the property. Claimants could sell their joint enterprise rights to the highest bidder in an open market. Cuba would gain infusions of capital and other important resources needed to reinvigorate lagging industry as well as create opportunities for new enterprise development. As a nod to the need for human rights protection, a further stipulation might be the incorporation of some level of privatization for these joint enterprises, with potential entrepreneurial promotion within Cuba. This sort of policy initiative to normalize economic relations with Cuba may be sufficient to satisfy the lingering concerns of the Cuban exile community in the United States.

Travel and tourism. Cuba welcomes visitors from the United States who spend dollars in the country. An inevitable result of travel by U.S. citizens in Cuba is an exchange of ideas and experiences. Travel by professionals could promote the exchange of important information in areas such as biotechnology and organic agriculture, to the benefit of both nations. By allowing for greater interaction between Americans and Cubans, a fuller understanding of each other's economy and society is likely to result. Common middle ground might be discovered--for example, the U.S. position could be modified to allow for an economic model in Cuba that arguably is capitalistic and perhaps, to a certain extent, democratic while relying heavily on socialist principles. Such hybrid models already exist in Scandinavian countries allied with the United States.

We conclude that although the direct trade impact of sanctions on the United States and Cuba is small, many indirect effects will likely stay with both countries for a long time to come. For the United States, Cuba will always remain a fairly insignificant trading partner in absolute terms, though certain sectors (such as agriculture) could stand to gain significantly from access to the Cuban market. Despite the limited importance of trade considerations, the costs to U.S. political leadership in the region and beyond as well as the potential security interests in the region would indicate a need for the United States to consider normalizing relations with Cuba.

The Cuban people clearly have a lot to gain from normalized trading relations with the United States. Cheaper, more varied, and higher-quality imported products would enhance the public welfare. Export sales to a lucrative market such as the United States would provide Cuba with more resources to fund economic development. Given the current regime's adherence to an economic model that has not succeeded in producing economic prosperity and a stated policy of avoiding dependence on a single trading partner (even when such a partner represents the most viable and economically advantageous trading opportunities), it is questionable whether the potential economic gains from lifting sanctions would in fact be enjoyed by Cuba.

Despite rhetoric and some actions to the contrary, Cuba is creeping toward market-based economic organization. Whether the island is successful in fleshing out its emerging form of state capitalism in terms of providing prosperity and growth remains to be seen. In the interim, economic hardships suffered by its citizens are conveniently attributed to U.S. sanctions, easing the regime's ability to maintain control over the economy and society (Haass 1999).

References

- Boehm, Peter. 2002. Cuba and the Western Hemisphere. In *Cuba: What Next?* Presentation to the Interamerican Dialogue, Washington, DC, June 6.
- Carranza Valdez, Julio. 2001. La economia cubana: Un balance breve de una decada critica. University of London-Institute of Latin American Studies: Workshop Facing the Challenges of the Global Economy, January 25-26.
- Carter, Jimmy. 2002. Openings to Cuba: We must find a common ground. Washington Post, May 24.
- CIA. 1999. Cuba: Handbook of Trade Statistics, 1999. Washington, DC: Central Intelligence Agency Directorate of Intelligence. Available at http://www.cia.gov/cia/di/products/cuba_hbk99/index.html.
- Coughenour, Amy. 2002. Cuba. Hemisphere Highlights Volume I Issue 2. CSIS Americas Program.
- Council on Foreign Relations. 1999. U.S.-Cuban Relations in the 21st Century: Independent Task Force Report (Co-Chairs: Hon. Bernard W. Aronson and Hon. William D. Rogers). New York: Council on Foreign Relations Reports.
- Crespo, Nicolas and Charles Suddaby. 2000. A comparison of Cuba's tourism industry with the Dominican Republic and Cancun 1988-1999. *Cuba in Transition*, Vol. 10 ACSE.
- Dominguez, Jorge. 2002. The Cuban political system. In *Cuba: What Next?* Presentation to the Interamerican Dialogue, June 6, Washington, D.C.
- DuBois, Frank. 2002. *Location, Location, Location*. Presentation at the Academy of International Business annual meeting in San Juan, Puerto Rico, July 1.
- Erickson, Daniel P. The new Cuba divide. The National Interest, Issue 67, Spring.
- Falcoff, Mark. 2000. Cuba after Castro. Chief Executive, April: 28-30.
- Haass, Richard and Meghan O'Sullivan. 2000. Terms of engagement: Alternatives to punitive policies. *Survival*, Vol. 42, No. 2, Summer: 1-23.
- Haass, Richard. 1998. *Economic Sanctions: Too Much of a Bad Thing*. Washington, DC: Brookings Institution Policy Brief #34, June.
- Haass, Richard. 1999. *Hearing on the Use and Effect of Unilateral Trade Sanctions*. Statement before the Subcommittee on Trade, Committee on Ways and Means, U.S. House of Representatives, May 27.
- Hays, Dennis. 2002. Cuba and the United States. In *Cuba: What Next?* Presentation to the Interamerican Dialogue, June 6, Washington, D.C.
- Hufbauer, Gary Clyde, Jeffrey J. Schott, Kimberly Ann Elliot. 1990. *Economic Sanctions Reconsidered*, 2nd Edition. Washington, DC: Institute for International Economics.
- Hufbauer, Gary Clyde, Kimberly Elliot, Tess Cyrus and Elizabeth Winston. 1997. U.S. Economic Sanctions: Their Impact on Trade, Jobs and Wages. Institute for International Economics Working Paper.
- Jatar-Hausmann, Ana Julia. 1999. *The Cuban Way: Capitalism, Communism and Confrontation*. West Hartford, CT.: Kumarian Press.

Kittredge, Frank D. 2001. USA*Engage Response to CBO Study. Available at http://www.usaengage.org/resources/difperspectives/index/html. Accessed April 5, 2002.

Marquetti Nodarse, Hiram. 2000. Cuba reanimacion del sector industrial. *Revista Bimestre Cubana*, No. 13, July-December: 5-30.

NAM. 2001.

- OFAC. 1998. Terrorist Assets Report. Washington: U.S. Department of Treasury Office of Foreign Assets Control, January, 5.
- Perez-Lopez, Jorge F. 2000. Cuba's balance of payments statistics. *Cuba In Transition*, Volume 10, ACSE: 136-143.
- Preeg, Ernest. 1998. U.S. Economic and Trade Policy Toward Cuba. Testimony before the House Committee on Ways and Means Subcommittee on Trade. May 7.
- Preeg, Ernest. 1999. Cuba: A Western Hemisphere anachronism (chapter 2). In Feeling Good or Doing Good with Sanctions. Washington, DC: CSIS.
- Ratliff, William and Roger Fontaine. 2000. A Strategic Flip Flop in the Caribbean: Lift the Embargo on Cuba. Los Altos, CA: Hoover Institution on War, Revolution and Peace, Stanford University.
- Rich Kaplowitz, Donna. 1998. Anatomy of a Failed Embargo: U.S. Sanctions Against Cuba. Boulder, CO: Lynne Rienner.
- Sandza, Raymond and Mina Remy. 2002. Cuba. *Hemisphere Highlights*. Washington, DC: CSIS Americas Program email distribution, June.
- Seiglie, Carlos. 2001. Cuba's road to serfdom. Cato Journal, Winter.
- Spadoni, Paolo. 2001. The impact of the Helms-Burton legislation on foreign investment in Cuba. Cuba In Transition, Volume 11, ACSE.
- Stern, Hon. Paula. 2000. The Impact on the U.S. Economy of Lifting the Food and Medical Embargo on Cuba. Washington DC: Stern Group.
- Suchlicki, Jaime. 2000. *The U.S. Embargo of Cuba*. Gainesville, FL: Institute for Cuban and Cuban American Studies Occasional Paper Series, June.
- Triana Cordovi, Juan. 2001. La economia Cubana en el ano 2000. La Economia Cubana en el 2000: 1-17.
- USITC (United States International Trade Commission). 2001. The Economic Impact of U.S. Sanctions with Respect to Cuba. U.S. International Trade Commission Publication # 3398, Investigation # 332-413, February.

Wall Street Journal 6/17/2002. Castro rejects reform demands by opposition. A12.

World Bank. 2001. World Development Indicators. Washington, DC.

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