CUBA: A VIEW OF REVEALED EXPORT ADVANTAGE

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The demise of socialism in Eastern Europe and the subsequent dissolution of the Soviet Union brought an end to decades of preferential trading arrangements upon which the Cuban economy had come to rely. The initial response to this crisis by the Cuban government was, among other things, to issue a call for the Cuban economy to become better integrated into the global economy. More recently, however, Fidel Castro and other high level Cuban government officials have increasingly called upon developing nations throughout the world to reject the process of "neoliberal globalization." At the very least, this change in official position suggests that the Cuban government found the process of "inserting" its economy into the global economy to be more difficult than initially expected. At a more fundamental level, it may be an indication that the Cuban government recognizes the incompatibility of its centrally planned, socialist economic system and the market forces driving today's international marketplace.

Cuba's agricultural sector, which historically has been a critically important element of the Cuban economy, was particularly hard hit by the loss of trade preferences and subsidies. Because of the key role that agricultural exports have played in the Cuban economy, as well as the country's heavy reliance on agricultural imports, one of the key issues for the Cuban government over the past 10 years has been, and continues to be, the role that the agricultural sector will play in the future, both in terms of generating hard currency export earnings and feeding the population.

Since 1990, officials at all levels of Cuba's agricultural ministries have struggled to respond to the crisis brought on by having been thrust into the "world market" to an extraordinary degree with such great speed and from such heavily subsidized levels. Cuba's agricultural sector has continued to evolve in response to selected policy changes implemented in the period until 1994 (the break up State farms into Unidades Básicas de Producción Cooperativa, UBPCs, and the opening of agricultural markets for the sale of "surplus" production beyond quota obligations), and other internal developments.[1] Nevertheless, questions remain regarding the sector's long-term competitiveness capabilities.

BACKGROUND AND PROBLEM STATEMENT

Cuba's agricultural trade patterns have changed dramatically since the late 1980s. Agricultural and food imports have fallen significantly, primarily due to foreign exchange shortages. However, because of the critical need for food imports to feed the Cuban people, agricultural and food imports have not fallen as much on a percentage basis as other import categories, and they now represent a higher proportion of Cuba's total imports than at any time in the last 50 years.

In terms of agricultural exports, the sugar sub-sector, which had been a driver of the Cuban economy for

1. For additional detail on this topic, see Messina, 1999.

much of the last two centuries, has fallen on especially hard times. Sugar export values have suffered not only from the loss of preferential prices for the commodity, but also from dramatically declining production volumes brought on by the lack of ability to import chemical inputs, equipment, spare parts and fuel.[2] At the same time, foreign investment in other agricultural and natural resource-based commodity sub-sectors—such as citrus, tobacco and fisheries—has driven increases in exports of citrus juices, cigars and high-value seafood products (e.g., shrimp and lobster).[3]

Despite some of the aforementioned policy changes, in Cuba production decisions for crops destined for domestic consumption are still based largely on artificial prices determined by the State for sale to the government collection agency, *Acopio*. The agricultural markets discussed previously have changed this to some degree, however the prices in these markets are still not totally reflective of a free market. (The Cuban government periodically introduces its own products into the agricultural markets if prices in the markets are perceived to be rising too high since the Cuban government acknowledges that citizens in the City of Havana, for example, must rely on the agricultural markets for approximately one-third of their nutritional requirements.[4]) As a result of these distortions in the domestic food market, Cuban agricultural and fisheries exports tell a much more important story regarding the competitiveness and viability of these sectors since the export levels respond to price signals in the global marketplace.

In an effort to quantitatively assess the evolution of Cuba's agricultural and fisheries export sectors during the Special Period following the loss of Soviet support and subsidization, this paper employs analytical techniques and measures to evaluate the relative export performance of Cuba's 10 most important (in value terms) agricultural and fisheries exports for the years 1985 through 1999.

METHODOLOGY AND DATA

As the Kennedy Round of negotiations of the General Agreement on Tariffs and Trade (GATT) was in progress in the mid 1960s, discussions arose regarding the short run problems of adjustment and the consequences for balance of payments for participating countries, particularly developing countries. In an effort to address these issues through the concept of classical comparative advantage, and to assess the process of resource reallocation attendant to trade liberalization, Balassa (1965) developed the idea that changes in commodity patterns of trade reflect relative costs and other non-price factors and thus demonstrate what he refers to as "revealed" comparative advantage.[5] By measuring relative trade performance of countries for individual products Balassa argued that revealed comparative advantage (RCA) measures reflect differences in relative prices of factors of production along with non-price variables.[6]

One component of Balassa's RCA calculation is a measure of "relative export advantage" (RXA), which is a ratio, in value terms, of a commodity's share of a country's total exports (net of the commodity), to the rest of the world (ROW) exports of that commodity

2. The history of and prospects for Cuba's sugar sector are comprehensively examined in *Cuba's Sugar Industry* by Alvarez and Peña Castellanos (2001).

3. For additional information on foreign agribusiness investment in Cuba see: Fernández Mayo and Ross, 1998; Ross and Fernández Mayo, 1997; and Ross, 1996.

4. Nova González, 1998.

5. Use of relative export performance as an indicator of comparative advantage goes back to the work of Liesner in 1958. Balassa's (1965) methodology extends the work of Liesner.

6. Specifically Balassa points out that such an approach avoids the difficulties which arise from trying to incorporate variations in efficiencies for an industry between countries into efforts to measure comparative advantage, as well as the problems that are encou ntered in applying Hecksler-Ohlin theory to the three factor case (labor, capital and material inputs, or intermediate products) and more than two countries (pp. 101 to 103).

as a proportion of ROW total exports (net of the commodity). Thus the following equation:

$$\frac{\dfrac{X_{cj}}{(X_{ct} - X_{cj})}}{\dfrac{(X_{wj} - X_{cj})}{(X_{wt} - X_{wj}) - (X_{ct} - X_{cj})}}$$

where:

X = export value
c = country (in this case Cuba)
j = product
w = all countries of the world
t = total trade

The results are then converted into an index for ease of comparison across commodities.

For purposes of this study, data is analyzed for the years 1985 through 1999. This allows examination of five years' worth of data (1985 to 1989) during which Cuba was receiving its full complement of trading preferences and subsidies from the former Soviet Union, and 10 years worth of data during which Cuba's agricultural sector was functioning essentially without subsidization.

Appendix tables contain raw data used for this study, along with useful computations that are components of the RXA equation. (In addition to data for the years analyzed in this study, the Appendix tables include data for the years 1965, 1970, 1975, 1980 and 1984 as points of reference.)

The top portion of Appendix Table A.1 contains export values for Cuba's top 10 agricultural and natural resource-based export commodities and products (including fish and shellfish), as well as Cuba's total export figures. Cuban data are taken from various issues of the *Anuario Estadístico de Cuba*. Table 1 contains export values and rankings for each of these 10 products (drawn from Appendix Table A.1) for the years 1985 and 1999 to document shifts in rankings that have taken place.

The lower portion of Appendix Table A.1 contains the world totals for the same data series as the top portion of the table. World figures are from the Food and Agricultural Organization of the United Nations FAOSTAT database.

RESULTS AND ANALYSIS

Appendix Table A.2 contains revealed export advantage calculations using the data in Table A.1. Table 2 shows the indices derived from the RXA calculations in Appendix Table A.2, with 1985 as the base year (i.e., 1985=100).

Looking first at sugar because of its dominant role in the Cuban economy, the general rise in RXA from 1985 through 1990 is an indication of the influence of the trade preferences Cuba was receiving from Eastern Europe and the Soviet Union. In 1990 in particular, the RXA showed a substantial increase which reflects the jump in the value of Cuban sugar exports in the last full year of Soviet subsidization, and in a year when total Cuban exports did not increase appreciably (see figures in top portion of Appendix Table A.1). After 1990, the index declines steadily and dramatically, reflecting the general deterioration experienced by the industry following the loss of trade preferences with Eastern Europe and the former Soviet Union.

In the case of molasses, a pattern similar to sugar might be expected. However, as can be seen in Appendix Table A.1, the value of molasses exports has not decreased nearly as much on a proportional basis as the value of sugar exports. Thus, in this case, the RXA index is more reflective of the increased importance of molasses in Cuba's agricultural export mix resulting from the significant decrease in the total value of Cuban exports after 1990. Appendix Table A.3 contains data to illustrate this; it shows the value of Cuba's exports of the commodities analyzed in this study as a percentage of Cuba's total exports. Data in this table indicate that, despite their decrease in absolute terms, the value of exports of molasses represents more than twice as large a percentage of Cuba's total agricultural exports in 1999 as it did in 1985. However, the value of molasses exports is so small that it is not particularly significant for Cuban export performance in general.

Table 1. Cuban Agricultural and Natural Resource-Based Exports—Value and Ranking for 10 Most Important Commodities, 1985 and 1999

	1985		1999	
Commodity	Export value (1,000 pesos)	ranking	Export value (1,000 pesos)	Ranking
Sugar, raw 96º	4,441,486	#1	458,210	#1
Fresh Citrus	143,973	2	14,926	7
Fish & Shellfish	115,008	3	95,267	3
Cigars	46,246	4	172,115	2
Unmanuf. Tobacco	39,735	5	27,048	5
Coffee	36,641	6	15,862	6
Distilled Alcoholic Beverages (rum)	21,795	7	13,014	8
Citrus Juices	15,075	8	58,176	4
Molasses	14,667	9	8,079	9
Honey	8,063	10	4,296	10

Source: *Anuario Estadístico de Cuba*, various issues

The situation is similar for honey, unmanufactured tobacco (tobacco leaf) and coffee. It should be noted, however, that the examination of coffee faces some data inconsistencies. The data series for Cuba from the *Anuario* issues is for "Coffee, Tea and Cocoa" while the world data series from FAOSTAT is for "Coffee, Green and Roasted." However, an examination of years for which disaggregated data are available for Cuba indicates that coffee consistently represented upwards of 97 percent of the value of the aggregated value of Cuba's "Coffee, Tea and Cocoa" exports, which makes a calculation of the coffee RXA worth considering.

The RXA index for the fish and shellfish category actually shows decreases in relative export performance in the late 1980s and increases from 1991 onward. However, potential data problems exist for this commodity as fisheries specialists have indicated that the FAO "fish and shellfish, fresh and frozen" data series may not include the same products as the Cuban data series; in such a case the RXA index would not be particularly meaningful. Furthermore, use of the aggregated data for fish and shellfish does not permit examination of an otherwise interesting story; within Cuba during the 1990s, there was an important effort to expand production and exports of high value fisheries products such as lobster and shrimp. To the extent that this effort was successful, this could explain the increase in the RXA index during the 1990s.

In the case of Cuban exports, the distilled alcoholic beverage category is essentially rum. For this product category, the RXA index decreased from 1985 through 1992, with improvement thereafter. Inasmuch as there has been some foreign investment in the rum sector, one might expect this result to be reflecting the influence of such activity. However, the value of distilled alcoholic beverage exports was considerably lower in 1999 than it was in the base year of 1985 (see Appendix Table A.1). As was the case with several commodities previously discussed, the increasing RXA index is a reflection of the fact that exports of distilled alcoholic beverages represent a larger proportion of the substantially smaller value of Cuba's total exports.

Cigars show the largest increase in relative export advantage index. This is because of the nearly tripling of the value of Cuba's cigar exports and, in particular, the increase seen from 1997 through 1999. Multiple and active foreign joint venture investments would appear to be at least partially responsible for the improvement of this RXA index series.

Perhaps the most interesting case is that of the citrus industry in Cuba. In the early 1990s, decreases in the fresh citrus RXA index are directly attributable to the loss of preferences in Eastern Europe and the former Soviet Union. At the same time, there were a number of foreign joint ventures in the citrus industry in Cuba during the 1990s. The continued decreases in the fresh citrus RXA index during the mid to late

1990s reflect the fact that foreign joint venture partners were not focusing their efforts on promoting fresh citrus exports. Rather, their energies appear to have been spent in advancing the exports of citrus juices as can be seen in the increase in the processed juice RXA export index series.

CUBA AND THE CARIBBEAN

During the 1990s, Cuba has been actively seeking trade agreements with many country members of CARICOM.[7] Its participation as a full member of The Association of Caribbean States (ACS)[8] ties Cuba to the broader Caribbean, at least on paper. These developments suggest that, to some extent, Cuba's efforts in the Caribbean region represent the most tangible attempts to "engage" in globalization and the ongoing trade liberalization negotiations. However, Cuba's trade flows within the Caribbean have not increased to any appreciable degree primarily because, in agriculture in particular, it tends to export and import the same crops and commodities as its Caribbean neighbors.

In a world of subsidies and preferential trade arrangements, Balassa makes the case that RCA and RXA measures do not provide much insight into comparative advantage, competitiveness and export performance. While Cuba was forced into the "free market" beginning around 1990, the Caribbean still enjoys most of its trade preferences for agricultural exports. For that reason, RXA measures for a number of the Caribbean countries that have been calculated previously by Taylor and Bonnett[9] have not proven to be comparable. In subsequent work, the authors will examine alternative methodologies in an effort to offer some comparison between Cuba's relative export performance and that of selected countries in the Caribbean.

CONCLUSION

In summary, the RXA appears to be a useful tool for analyzing the performance of Cuba's agricultural export sector. It helps to quantify the decline that Cuba has experienced in the export performance of its sugar industry and it offers interesting insights into the improved performance of selected other commodity sectors.

Using the argument developed by Balassa, these results should reflect resource (i.e., input or factor of production) reallocation within Cuba's agricultural sector and its economy more generally. In Cuba's case, such an interpretation must be viewed with caution because of two considerations. First, shifts in agricultural exports are only partially reflective of resource reallocation within the agricultural sector in Cuba because of the distorted price signals present within the system for agricultural and food production as discussed previously. Secondly, the Cuban government has demonstrated an unwillingness or inability to make decisions to allow reallocation of some of its resources. For example:

- Land—The breakup of the state farms, while important, resulted in relatively few changes in land utilization. Even in instances where UBPC members recognize that their land is better suited for crops other than those that traditionally have been produced on it in years past, the Cuban government typically has offered little latitude in what is produced on the land. (Self-provisioning plots provided on farms have alleviated some of the pressure brought on by these policies, however, land area for self-provisioning plots as a percentage of total agricultural land area is insignificant.)
- Labor—Bringing the Working Youth Army (EJT) into agricultural production has been one

7. The Caribbean Community, which includes Antigua and Barbuda, the Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Kitts and Nevis, Saint Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago.

8. Full members of the ACS include: Antigua and Barbuda , the Bahamas, Barbados, Belize, Colombia, Costa Rica, Cuba Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, St. Kitts and Nevis, Saint Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, and Venezuela.

9. Separate research report not yet released.

Table 2. Relative Export Advantage (RXA) Indices (1985 as base year)

Year	Coffee, Green & Roasted	Fish & Shellfish, Fresh & Frozen	Distilled Alcoholic Beverages	Honey	Molasses	Sugar	Cigars & Cheroots "Tobacco Manuf."	Tobacco Leaves "Tobacco Unmanuf."	Fresh Citrus	Processed Citrus
1985	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1986	107.3	87.2	81.3	114.2	120.3	101.6	93.0	104.8	98.6	n/a
1987	178.6	91.4	57.5	143.5	118.3	123.6	114.7	129.2	118.3	n/a
1988	225.6	96.0	56.3	148.2	183.6	125.0	128.2	150.2	134.3	n/a
1989	272.4	85.0	78.0	181.6	288.1	105.0	104.6	138.7	122.0	101.0
1990	212.6	59.8	52.4	126.7	190.4	161.4	137.5	177.0	125.1	81.1
1991	251.1	135.1	39.1	240.3	410.5	137.9	248.8	268.9	84.1	374.3
1992	620.6	183.3	70.7	316.5	486.1	110.2	418.1	226.3	15.9	831.3
1993	628.8	201.9	136.5	361.3	242.2	90.0	536.9	315.2	51.6	1013.8
1994	544.2	280.5	110.3	335.9	473.6	62.0	481.8	306.2	52.9	931.4
1995	656.8	343.8	155.4	329.9	347.4	35.4	682.3	539.5	40.1	1235.9
1996	442.4	276.2	173.8	1009.0	169.5	43.5	516.5	380.6	28.7	943.8
1997	479.8	307.9	173.6	539.2	233.0	40.5	910.2	407.7	24.4	1085.5
1998	778.2	n/a	187.7	407.3	328.9	29.8	1527.2	465.0	68.2	984.7
1999	520.5	n/a	243.0	359.7	612.3	26.1	1930.6	541.8	59.1	1864.5

n/a = data not available

of the most important examples of resource reallocation by the Cuban government during the Special Period. However, there is little indication that these human resources were allocated to where they would be the most productive. Also, it is difficult to envision that the limited agricultural skills of the EJT enabled the agricultural sector to significantly improve its efficiency. Still, it does represent an increase in the agricultural labor force.

- Capital—Since 1990, the Cuban government has had precious little capital to invest in agricultural, even for fertilizers and chemical inputs, let alone for machinery and equipment.

Therefore, in reality, the resource reallocation process that is taking place within Cuba's agricultural sector is being driven almost exclusively by foreign investment and foreign business partners. Because of the relative lack of domestic purchasing power, to this point foreign investment in Cuban agriculture has generally been limited to crops and commodities with the potential for export at profitable price levels (and, in a few cases, for products with potential for sale to the tourist industry in Cuba). Furthermore, without the prospect of access to the U.S. market, significant new investment necessary to alter the competitiveness of Cuba's agricultural sector is unlikely.

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Appendix Table A.1: Cuba Exports (1000 pesos)

Year	Coffee Green+Roast	Fish & Shellfish Fresh & Frozen	Distilled Alcoholic Beverages	Honey	Molasses	Sugar	Cigars & Cheroots "Tobacco Manuf."	Tobacco Leaves "Tobacco Unman."	Fresh Citrus	Processed Citrus	Total Trade
1965	54	1,277	758	586	9,311	583,338	9,685	18,906	763		690,645
1970	5,089	15,754	1,915	780	20,716	784,851	10,352	15,242	2,741		1,049,477
1975	11,193	50,429	15,617	3,691	21,256	2,630,515	22,440	18,356	14,864		2,952,173
1980	21,765	86,102	25,163	8,009	37,732	3,279,206	29,035	3,649	41,315		3,966,730
1984	17,594	88,792	35,275	9,938	25,060	4,090,116	36,737	18,203	118,374		5,476,524
1985	36,641	115,008	21,795	8,063	14,667	4,441,486	46,246	39,735	143,973	15075	5,991,477
1986	42,730	120,771	16,944	9,441	19,759	4,069,106	38,172	32,429	149,860		5,321,489
1987	41,708	138,514	12,685	9,517	16,422	3,987,254	47,642	35,177	162,608		5,402,060
1988	47,799	142,517	12,645	8,451	22,682	4,086,530	53,700	37,930	170,710		5,518,373
1989	47,932	125,217	17,403	9,927	28,029	3,913,666	45,260	34,201	138,841	13233	5,392,004
1990	26,646	96,200	13,239	6,728	19,619	4,313,843	68,689	42,886	145,062	12464	5,414,949
1991	16,519	124,344	5,843	7,080	23,126	2,259,280	71,971	41,767	61,205	21563	2,979,512
1992	19,027	103,566	6,541	5,488	15,831	1,220,076	73,388	20,307	6,855	29593	1,779,424
1993	13,376	67,492	8,055	3,670	4,753	752,505	55,007	15,578	13,710	22501	1,156,663
1994	21,249	98,166	7,337	3,739	11,477	748,007	55,151	15,414	15,724	25671	1,330,756
1995	27,235	120,574	10,022	4,261	9,205	704,405	75,430	25,536	12,920	37147	1,491,634
1996	19,098	124,563	13,163	18,509	6,151	957,457	79,656	27,619	11,913	38189	1,865,526
1997	24,214	127,103	12,581	8,696	5,766	844,596	128,281	29,311	8,610	33903	1,819,130
1998	30,300	102,661	10,280	5,538	6,231	593,694	162,750	25,785	19,103	31414	1,512,197
1999	15,862	95,267	13,014	4,296	8,079	458,210	172,115	27,048	14,926	58176	1,456,068

Source: Anuario Estadistico de Cuba, various issues

Appendix Table A.1: World Exports ($1000) (continued)

Year	Coffee Green+Roast	Fish & Shellfish Fresh & Frozen	Distilled Alcoholic Beverages	Honey	Molasses	Sugar	Cigars & Cheroots "Tobacco Manuf."	Tobacco Leaves "Tobacco Unman."	Fresh Citrus	Processed Citrus	Total Trade
1965	2,236,268	134,998	657,516	29,271	70,496	1,506,353	47,451	1,172,603	494,778	63,384	187,045,310
1970	3,093,006	238,958	1,095,758	35,649	113,545	1,973,767	77,029	1,292,505	616,158	128,841	314,644,043
1975	4,269,038	663,039	2,093,131	120,312	320,848	9,093,868	213,350	2,607,955	1,283,667	294,960	883,344,890
1980	12,457,185	978,438	4,129,774	253,427	609,770	9,785,492	410,899	3,813,928	2,248,930	793,301	2,024,733,310
1984	10,974,120	929,488	3,469,795	250,610	413,863	7,504,227	271,935	4,128,832	1,904,604	2,011,293	1,926,525,100
1985	11,374,095	1,124,425	3,594,009	249,368	326,517	6,949,314	278,739	4,047,569	1,999,841	1,376,704	1,957,297,770
1986	15,295,074	1,629,914	4,239,940	315,661	452,210	7,143,917	351,888	3,890,639	2,583,311	1,205,257	2,148,870,970
1987	10,361,867	2,042,991	5,148,731	292,229	436,959	6,548,274	387,583	3,946,423	2,701,225	1,637,727	2,509,752,070
1988	10,524,950	2,227,728	5,862,912	279,863	441,084	7,015,226	400,379	4,093,337	2,796,007	2,164,586	2,864,094,960
1989	9,646,998	2,400,934	6,422,353	296,951	391,711	7,395,121	394,964	4,395,697	2,716,488	2,088,517	3,084,100,170
1990	7,720,889	2,885,505	8,198,815	321,271	453,739	8,113,825	516,619	4,888,333	3,112,232	2,757,477	3,495,454,930
1991	7,376,011	3,103,280	8,810,517	325,135	457,130	5,827,288	575,322	5,733,332	3,429,220	1,905,885	3,499,975,970
1992	6,212,624	3,444,887	9,809,910	341,926	466,893	4,551,259	650,569	5,909,748	3,534,425	2,140,588	3,752,374,310
1993	6,624,347	3,107,467	9,654,307	306,696	420,635	4,232,192	444,648	5,013,344	3,378,254	2,051,708	3,749,089,170
1994	12,093,718	3,305,371	10,775,844	332,790	522,896	4,719,588	464,012	5,052,467	3,748,849	2,523,439	4,276,195,200
1995	13,735,266	3,575,096	11,163,634	411,550	604,164	6,496,517	529,705	5,106,703	4,317,242	2,958,998	5,112,063,400
1996	11,851,039	3,780,081	10,961,954	505,282	684,919	6,759,229	585,321	6,520,381	4,630,899	3,309,793	5,342,363,490
1997	14,770,698	3,696,842	11,145,797	461,324	497,780	6,155,003	648,895	6,875,850	4,175,712	2,714,065	5,538,207,470
1998	13,619,480		9,993,456	457,682	453,538	5,909,247	777,450	6,297,648	3,974,094	3,285,434	5,461,007,500
1999	11,190,764		10,379,996	424,895	338,761	4,859,995	726,666	6,021,051	3,788,139	3,498,697	5,572,852,640

Source: FAOSTAT

Appendix Table A.2: Revealed Export Advantage Calculations for Cuba, selected years

Year	Coffee Green+Roast	Fish & Shellfish Fresh & Frozen	Distilled Alcoholic Beverages	Honey	Molasses	Sugar	Cigars & Cheroots "Tobacco Manuf."	Tobacco Leaves "Tobacco Unman."	Fresh Citrus	Processed Citrus
1965	0.0064	2.5797	0.3107	5.5161	41.6092	1092.1124	70.1664	4.5180	0.4161	
1970	0.4900	21.3966	0.5223	6.6884	68.0061	779.3318	46.8443	3.6036	1.3361	
1975	0.7831	24.9581	2.2484	9.4490	21.3047	1105.7702	35.3141	2.1208	3.5062	
1980	0.8910	50.2235	3.1366	16.6564	33.9154	1476.6014	39.0126	0.4874	9.6237	
1984	0.5619	37.6424	3.6196	14.5091	22.7085	1657.0391	55.1535	1.5552	23.7377	
1985	1.0529	37.8131	1.9907	10.8956	15.3526	2226.7338	65.2784	3.2438	25.8628	3.6123
1986	1.1295	32.9607	1.6182	12.4392	18.4696	2261.7964	49.3596	3.4003	25.4962	
1987	1.8804	34.5783	1.1453	15.6318	18.1554	2753.0539	65.5406	4.1902	30.5853	
1988	2.3752	36.3163	1.1199	16.1526	28.1937	2782.8491	81.0177	4.8715	34.7270	
1989	2.8677	32.1401	1.5532	19.7824	44.2299	2338.4408	74.5150	4.4996	31.5412	3.6473
1990	2.2381	22.6127	1.0425	13.8020	29.2298	3594.2721	100.0925	5.7421	32.3498	2.9309
1991	2.6435	51.0807	0.7784	26.1863	63.0212	3071.3102	171.9465	8.7212	21.7550	13.5215
1992	6.5343	69.3066	1.4078	34.4852	74.6314	2453.6949	279.4848	7.3400	4.1079	30.0304
1993	6.6211	76.3353	2.7177	39.3655	37.1811	2003.5786	480.2351	10.2242	13.3501	36.6233
1994	5.7297	106.0748	2.1953	36.6020	72.7085	1380.3187	452.0040	9.9337	13.6803	33.6450
1995	6.9151	130.0125	3.0926	35.9438	53.3313	788.6084	599.1428	17.5010	10.3652	44.6454
1996	4.6582	104.4564	3.4590	109.9329	26.0246	969.5037	471.0276	12.3455	7.4244	34.0937
1997	5.0513	116.4283	3.4562	58.7471	35.7767	902.6804	806.7285	13.2263	6.3134	39.2103
1998	8.1941		3.7363	44.3790	50.4956	663.2283	1071.0396	15.0829	17.6485	35.5717
1999	5.4800		4.8376	39.1948	93.9983	580.7481	1346.6320	17.5742	15.2825	67.3507

Appendix Table A.3: Cuban Exports of Commodity as a Percentage of Total Cuban Exports

Year	Coffee Green+Roast	Fish & Shellfish Fresh & Frozen	Distilled Alcoholic Beverages	Honey	Molasses	Sugar	Cigars & Cheroots "Tobacco Manuf."	Tobacco Leaves "Tobacco Unman."	Fresh Citrus	Processed Citrus
1965	0.008%	0.185%	0.110%	0.085%	1.348%	84.463%	1.402%	2.737%	0.110%	
1970	0.485%	1.501%	0.182%	0.074%	1.974%	74.785%	0.986%	1.452%	0.261%	
1975	0.379%	1.708%	0.529%	0.125%	0.720%	89.104%	0.760%	0.622%	0.503%	
1980	0.549%	2.171%	0.634%	0.202%	0.951%	82.668%	0.732%	0.092%	1.042%	
1984	0.321%	1.621%	0.644%	0.181%	0.458%	74.685%	0.671%	0.332%	2.161%	
1985	0.612%	1.920%	0.364%	0.135%	0.245%	74.130%	0.772%	0.663%	2.403%	0.252%
1986	0.803%	2.269%	0.318%	0.177%	0.371%	76.466%	0.717%	0.609%	2.816%	
1987	0.772%	2.564%	0.235%	0.176%	0.304%	73.810%	0.882%	0.651%	3.010%	
1988	0.866%	2.583%	0.229%	0.153%	0.411%	74.053%	0.973%	0.687%	3.093%	
1989	0.889%	2.322%	0.323%	0.184%	0.520%	72.583%	0.839%	0.634%	2.575%	0.245%
1990	0.492%	1.777%	0.244%	0.124%	0.362%	79.665%	1.269%	0.792%	2.679%	0.230%
1991	0.554%	4.173%	0.196%	0.238%	0.776%	75.827%	2.416%	1.402%	2.054%	0.724%
1992	1.069%	5.820%	0.368%	0.308%	0.890%	68.566%	4.124%	1.141%	0.385%	1.663%
1993	1.156%	5.835%	0.696%	0.317%	0.411%	65.058%	4.756%	1.347%	1.185%	1.945%
1994	1.597%	7.377%	0.551%	0.281%	0.862%	56.209%	4.144%	1.158%	1.182%	1.929%
1995	1.826%	8.083%	0.672%	0.286%	0.617%	47.224%	5.057%	1.712%	0.866%	2.490%
1996	1.024%	6.677%	0.706%	0.992%	0.330%	51.324%	4.270%	1.480%	0.639%	2.047%
1997	1.331%	6.987%	0.692%	0.478%	0.317%	46.429%	7.052%	1.611%	0.473%	1.864%
1998	2.004%	6.789%	0.680%	0.366%	0.412%	39.260%	10.762%	1.705%	1.263%	2.077%
1999	1.089%	6.543%	0.894%	0.295%	0.555%	31.469%	11.821%	1.858%	1.025%	3.995%