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The “Special Relationship” and the Challenge of Diversifying a Sugar Economy:  
Cuban Exports of Fruits and Vegetables to the United States, 1902 to 1962

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## 1. Introduction

For almost sixty years of the 20th century Cuban exports to the United States enjoyed certain advantages not available to any other sovereign country: at least a 20% reduction in import duties on items subject to a US tariff and privileged access to the US market for its main export, cane sugar. Given this competitive advantage, as well as its comparative advantage of climate and geographic proximity, this paper considers the degree to which Cuba was able to diversify its export economy and the obstacles to doing so to a greater extent.

At the time of the Cuban Revolution of 1959, sugar made up around three-quarters of the value of Cuban exports to the United States, not that much different than in the early decades of the century. The dominant role of sugar in Cuba's economy, nonetheless, conceals the diversification that took place in agricultural exports. The 1902 Reciprocity Convention, which granted Cuba a 20% reduction in US import duties, provided the incentive for the development of a number of non-traditional fruit and vegetable exports geared to the US market. In less than two decades, Cuba became almost the sole foreign supplier of pineapples and grapefruit. Moreover, after the 1934 Reciprocal Trade Agreement that granted Cuba even more favorable duty concessions during the US winter season, it became the dominant foreign supplier of vegetables such as cucumbers, okra and eggplant, and an important source of fresh tomatoes. Further, in the post-World War II period, in most years the value of Cuban exports of processed fruit to the US exceeded that of fresh fruit. Yet, over the sixty years in consideration Cuban exports of fresh and processed fruits and vegetables to the US rarely comprised 4% of total Cuban exports largely because of the dominant role of its sugar exports.

In contrast to the expansion of sugar production in the early 20th century, which was largely at the behest of large US capital, the development of citrus, pineapple and vegetable production for export in these decades was largely undertaken by North American colonists on small and medium-sized farms. But with the exception of citrus, by the late 1930s the production of these non-traditional export crops, along with the processing industry, was largely in Cuban hands.

While Cuban analysts at various points argued in favor of the need to diversify the country's agricultural sector by placing greater attention on domestic food production as well as more diversified export products and markets, the comparative advantage that Cuba held in the production of cane sugar was never really questioned (Fernández 2005). The concentration of land, labor, capital and agricultural research on sugar served as a powerful disincentive to the sustained growth of non-traditional exports, although external factors, as we will see, also played a role.

The paper proceeds as follows. In the next section we describe in more detail the special trading relationship between the US and Cuba which provided the latter with privileged access to the US market. The subsequent section analyzes the trends in Cuba's non-traditional agricultural exports in three periods: 1903 to the early 1920s (a period of falling US tariff rates); the early 1920s to World War II (a period of rising US protectionism as well as two major external shocks); and post-World War II to the Cuban Revolution of 1959 and its immediate aftermath, the imposition of the US embargo on trade with Cuba. Next we consider the long-run trend of

these fresh fruit and vegetable exports along with the growth of Cuba's fruit and vegetable processing industry and exports. We then turn to the analysis of who developed and produced the non-traditional export crops. The concluding section sums up why Cuba was not able to diversify its agricultural exports to a greater extent, and draws out the potential lessons from this analysis for future US-Cuban trade.

## 2. The Special Relationship: The Reciprocity Agreements and US Trade Policy

Cuba's special trading relationship with the US was formalized in the 1902 Reciprocity Convention between the two countries (US Congress 1903), a quid pro quo for Cuba's agreement to include the infamous Platt Amendment in its 1902 Constitution. The Platt Amendment (an amendment to a 1901 US army appropriations bill), spelled out eight conditions deemed necessary for US military forces to be withdrawn from the island after the Cuban-Spanish-American War and for sovereignty to be transferred to the Cuban people. Among them was the right of the US "to intervene in Cuban affairs in order to defend Cuban independence and to maintain a government adequate for the protection of life, property, and individual liberty" (USDS n.d.). Notwithstanding considerable opposition, the Cuban Constitutional Convention acquiesced when the McKinley Administration "promised them a trade treaty that would guarantee Cuban sugar exports access to the U.S. market" (ibid.).<sup>1</sup>

The 1902 Reciprocity Convention contained two provisions of great interest to Cuban leaders: it maintained duty free access to the US market for those products which at the time were being imported free of duty; and it granted Cuba a special 20% reduction on the duty rates provided for in the 1897 US Tariff Act,<sup>2</sup> or "as may be provided by any tariff law of the United States subsequently enacted" (USTC 1929, Appendix I: 172-73). In return, Cuba ceded to the US a similar guarantee to maintain existing provisions for duty free access for certain items, and duty reductions in the range of 25% to 40% on a range of products which Cuba imported at the time.<sup>3</sup> In addition, those items not enumerated specifically in the agreement, or which Cuba might import from the US in the future, were granted a 20% reduction on Cuban import duties (ibid.).

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<sup>1</sup> See Zanetti (2003) for a detailed treatment of those in favor and against the Platt Amendment and the Reciprocity Convention both in Cuba and in the US. The Platt Amendment was not rescinded until 1934. The 1902 Reciprocity Convention, which went into effect in December 27, 1903 (due to delays in its signing), was officially abrogated in August 1963.

<sup>2</sup> It is worth noting that the 1897 Dingley Tariff Act authorized the President to negotiate trading agreements based on reciprocal concessions, including cutting tariffs by 20% and transferring products to the free list, although such agreements required Congressional approval (Eckes 1995).

<sup>3</sup> Among the US agricultural or agro-industrial products ceded the 25% reduction were salted, pickled, smoked or marinated fish, and fish or shellfish preserved in oil or otherwise in tins; those ceded a 30% reduction were butter, wheat flour, corn, corn flour or corn meal, and pickled or preserved vegetables; and those ceded a 40% reduction included cheese, preserved fruits, rice and cattle (USTC 1929: Appendix I). According to the US Tariff Commission (ibid.), Cuba ceded these larger percentage cuts in duties either to stimulate domestic consumption or because the US share of the Cuban market was so small that a larger cut was necessary for US exports to reap some competitive advantage.

The main Cuban agricultural exports that entered the US duty free at this time were cacao, coffee, bananas and plantains, and coconuts (USDC&L 1906).<sup>4</sup> For a brief period of time in the early 1890s, sugar and molasses had been on the free list, but this status was rescinded in the 1894 Wilson-Gorman Tariff Act (Eckes 1995). Thus the main benefit to Cuba from the 1902 Reciprocity Convention was the 20% reduction in the duty on sugar which allowed Cuba's main export to gain market share. Cuba's share of US sugar imports increased from 35% in 1900-03, to 91% a decade later, and to 98% by 1922-25 (USTC 1929: Table 12). The main losers were the European sugar beet industry and Dutch East Indies and British West Indies cane sugar exporters.<sup>5</sup>

The 1913 Underwood-Simmons Tariff Act sharply lowered US tariffs across the board, and provided an additional incentive for Cuban production and export of non-traditional commodities. For example, the duty on grapefruit fell from 64 cents per pound to 28 cents and the duty on vegetables between 15% to 25% ad valorem (Deere 1998). However, this potential stimulus was to be relatively short-lived. The Fordney-McCumber Tariff Act of 1922 raised the average duty on all US imports to 14% from the 9.1% that had prevailed under the Underwood-Simmons Tariff Act (Eckes 1995). Then, the Smoot-Hawley Tariff Act of 1930 increased duties to the levels prevailing at the beginning of the century, with the average duty reaching 19.6% in 1932. It also imposed duties on a few of Cuba's export products that had previously been on the free list, such as avocados and mangoes (Lloyd 1942). As partial cause and consequence of the Great Depression, trade between the US and Cuba, as well as global trade subsequently, contracted severely.

In the early 1930s, the Roosevelt Administration was divided over the potential role of international trade in spurring an economic recovery. Roosevelt's Secretary of State, Cordell Hull, was among those committed to lowering trade barriers and battling the "economic nationalists" responsible for Smoot-Hawley (Steward 1975). He led the effort to achieve a downward revision in US tariffs through bilateral, reciprocal trade agreements that included unconditional most-favored-nation clauses. This is the context in which the US Congress finally authorized the Reciprocal Trade Agreements Act in June 1934 (an amendment to Smoot-Hawley) as an emergency measure to increase US exports.

Between 1934 and 1940 Hull's State Department negotiated some 16 reciprocal agreements world-wide, eleven of these with countries in Latin America. Although not the initial intent, these reciprocal agreements have come to be seen as the economic arm of Roosevelt's Good Neighbor policy in the Hemisphere, a policy initiative that provided many Latin American countries with a potential way out of the Great Depression through increased trade. The rationale responded as much to the deteriorating US trade position in the region as to Latin

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<sup>4</sup> The USTC (1929) mentions that at the time alligator pears (avocados) and certain other fruits and vegetables, along with coconuts, were free of duty *only* if imported from Cuba, but the former are not broken down in USDC&L (1906), nor mentioned explicitly in the Reciprocity Convention.

<sup>5</sup> Cuba was also supplying a growing share of US domestic consumption requirements. While sugar imports from Cuba more than doubled between 1910-13 and 1922-25, receipts from the non-contiguous territories of Hawaii, Puerto Rico, the Virgin Islands and the Philippines grew by only 42% over this period (derived from USTC 1929: Table 12).

America's falling purchasing power.<sup>6</sup> There was also increasing concern regarding the rising number of defaults on US debts held by Latin American governments. Besides tying Latin American economies more closely to the US, these agreements also served to erode German and Japanese inroads into Latin America (Steward 1975).

The very first of these reciprocal agreements that went into effect was with Cuba in 1934 (USDS 1942). The Cuban agreement differed from others negotiated in this period in that it maintained Cuba's special trading relationship with the US and it did not include most-favored-nation treatment. Hence, the Cuban agreement was not negotiated as the others with the objective of promoting freer world trade, but rather, was focused specifically on bilateral concessions aimed at containing Cuba's economic and political instability (Steward 1975). As a monoculture economy dependent on sugar exports for foreign exchange, Cuba was particularly hard hit by the Great Depression and the associated fall in the price and volume of sugar exported. Whereas in 1924 Cuba had been the US's sixth largest export market, by 1933 it ranked sixteenth. Moreover, US investment in Cuba was second in magnitude only to that in Canada.<sup>7</sup> As Steward (ibid: 93) argues, "The United States was well aware that Cuba needed stability and prosperity to safeguard US investments in Cuba."

Negotiations over the trade agreement took place as the US Congress was once again revising US sugar policy. The May 1934 Jones-Costigan Act assured Cuba a fixed quota of 1.9 million short tons of sugar in the US market and reduced the duty for Cuban sugar from that stipulated in Smoot-Hawley of US\$0.02 to US\$0.015 per pound. The final US-Cuba Reciprocal Trade Agreement of September 1934 included a further concession on sugar, reducing the duty to US\$0.009 per pound (Steward 1975).

Besides reaffirming Cuba's 20% duty preference granted in the 1902 Reciprocity Convention, the 1934 treaty gave many Cuban fruit and vegetable exports even greater preferential treatment during the US winter season.<sup>8</sup> For example, under Smoot-Hawley the duty on tomatoes had increased from a half cent to 3 cents per pound meaning that Cuba, with its 20% preferential, faced a duty of 2.4 cents per pound. Under the 1934 treaty, tomatoes could now be exported to the US in the December to February period favored by an additional 20% reduction (a duty of only 1.8 cents per pound); in other months, tomatoes from Cuba would continue to pay the 2.4 cents per pound rate (Lloyd 1942: 273).<sup>9</sup> As Table 1 shows, other crops such as grapefruit and

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<sup>6</sup> Between 1929 and 1932 the value of US exports to the region declined by 78% while imports from Latin America declined by 68%. Besides the decline in the absolute volume of trade, Latin American purchasing power was also eroded by the sharp fall in the price of many of its export commodities (Steward 1975:21).

<sup>7</sup> Between 1913 and 1929 the value of US direct investments in Cuba increased by 594%; whereas in 1913 Cuba held 18% of US direct investment in Latin America, by 1929 this share had increased to 27% (Winkler 1929: tables 11 and 12).

<sup>8</sup> Cuba's vegetables could be planted earlier than in Florida and Texas, thus provisioning the US market when domestic supplies were low. This pattern had already developed prior to the Reciprocal Trade Agreement (Wakefield 1937).

<sup>9</sup> Lloyd (1942: 277) reports that the US winter vegetable industry was in a period of expansion between 1934-35 to 1939-40, with Florida production of tomatoes, potatoes, string beans, peppers, cucumbers, and eggplant all increasing. He concludes, nonetheless, "that increased imports of winter vegetables from Cuba, mainly in the 'off'

cucumbers received additional reductions of between 40% and 50% during the US winter season. A few products received an additional duty concession year-round, such as the 40% reduction on Cuban pineapples (Table 2).

Cuban concessions to the US included a reduction in the duty on food items such as meat, lard, vegetable oils, wheat flour, rice and potatoes. According to Steward (1975), popular opinion was that Cuba gave up too much, since the agreement stood to ruin its lard and oil industries, and it was unsuccessful in regaining a quota on Cuban tobacco in the US market, an objective of Cuban negotiators. He concludes that while this agreement, combined with the Jones-Costigan Sugar Act, helped stop the decline in Cuban exports of sugar to the US, “monoculture, not viability, was the chief result of the treaty” (ibid.: 111).<sup>10</sup>

The US Sugar Act of 1937 for the first time created a fixed quota system based on total US consumption requirements, and Cuba was allotted 28.6% of the US market (Smith 1960). According to Steward (1975), this quota amounted to about the same share of Cuban raw sugar but slightly less of its processed sugar exports. The Cuban government then lobbied for a further reduction in the sugar duty and a restoration of the tobacco quota which it had failed to gain in 1934. These negotiations resulted in two further amendments to the 1934 Reciprocal Trade Agreement, in 1939 and 1941, which further lowered the duty on Cuban raw sugar and provided some concessions on tobacco; these amendments also gave further duty reductions to some US exports to Cuba.

In the post-World War II period, one of the main US objectives was to achieve a general liberalization of global trade through the General Agreement on Trade and Tariffs (GATT), negotiated by 23 countries in 1948. Cuba was understandably concerned that it would lose its special preferences in the US market. A condition of its joining GATT was an exclusive 1947 agreement with the US, supplementing GATT, which maintained most of these preferences and even reduced duties further on raw sugar and a number of other items (Smith 1960).<sup>11</sup> Through the Torquay Trade Agreement of 1951, linked to meet the provisions of GATT, Cuba benefited from a lowering of US tariffs on many of its exports and modifications of tariff concessions it had previously granted the US (ibid.). According to the American Chamber of Commerce in Cuba (1957: 97), “since that time there have been reductions or eliminations of the margins of preference on additional products, but the preferential tariffs still remain in effect on a considerable part of the trade between the two countries.”

Another important change in the post-WWII period was in the method of calculating the US sugar quota allocation. The US Sugar Act of 1948 provided for fixed annual quotas for US domestic producers and territories while the remaining amount of projected US consumption was allocated according to percentage quotas. Cuba received 98.6% of this remainder, subject to a guaranteed floor of 28.6% of total US consumption requirements (Smith 1960: 169). This

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season for similar products from Florida and Texas have benefited consumers in the United States without working a hardship on domestic producers.”

<sup>10</sup> See Zanetti (2003) for a similar criticism and a more detailed analysis of the impact on Cuba of US sugar policy.

<sup>11</sup> Technically, the 1902 Convention and 1934 Reciprocity Agreement and Amendments were “inoperative” as long as both countries are GATT members, requiring this special concession.

system was renewed in 1952 and 1956, thus continuing to favor Cuba above other global producers until July 1960 when President Eisenhower eliminated Cuba's sugar quota for the remainder of that year. Then in October 1960 the US declared an embargo of Cuba (except for food and medicine),<sup>12</sup> and in January 1961 cut diplomatic relations with the island. The 1902 Reciprocity Convention was formally rescinded by the US in August 1963.

### 3. Trends in Cuban Exports of Fresh Fruits and Vegetables to the US market

In this section, we examine the trends in US imports of fresh fruits and vegetables from Cuba during three periods: from the passage of the Reciprocity Convention to the early 1920s, the mid-1920s to World War II, and post-WWII to 1962. This periodization allows us to consider the potential impact of changes in overall US trade policy--from falling US tariff rates in the first period to rising US protectionism in the second—as well as of external shocks, the Great Depression followed by World War II. We compare the performance of these “non-traditional” agricultural exports favored under the Reciprocity Convention and the 1934 Reciprocal Trade Agreement, to Cuba's “traditional” non-sugar and tobacco (henceforth, “NST”) agricultural exports of coffee, cacao, coconuts and avocados (the tree crops) and bananas and plantains. These traditional NST agricultural exports entered the US market duty free at the time the Reciprocity Convention was negotiated and, hence, did not require the 20% preferential duty rate.

#### The Impact of the 1902 Reciprocity Convention

At the beginning of the 20th century, 75% of total Cuban exports were to the US market (USTC 1929: Table 109) and 88% of US imports from Cuba consisted of sugar and tobacco while all other products made up only 12% (see Table 3). Post-WWI (1919-21), Cuban exports were even more concentrated on the US market, and these two products constituted 96% of US imports from the island. Sugar alone made up 90%, due to the relative decline of tobacco and the spectacular growth in sugar exports. These trends support the charge that one of the main effects of the 1902 Reciprocity Convention was to condemn the island to a monoculture economy (Steward 1975).<sup>13</sup> But these figures belie the degree of diversification that took place within Cuba's agricultural sector, particularly the growth of non-traditional exports of fruits and vegetables.

Table 4 presents a detailed breakdown of Cuba's NST agricultural exports during the period of the US occupation (1900-02), immediately after the implementation of the Reciprocity Convention (1903-05)<sup>14</sup> and post WWI (1919-21).<sup>15</sup> During these first two decades of the 20<sup>th</sup>

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<sup>12</sup> A complete embargo of trade with Cuba was authorized by the US Congress in September 1961, and by February 1962 almost all imports from Cuba had ceased.

<sup>13</sup> Another effect of the Reciprocity Convention was to give the US a larger share of total Cuban imports. In the 1900-03 period the US was supplying 43% of Cuba's imports; this figure reached a high of 75% in 1919-21 and constituted 68% in 1922-24 (USTC 1929: Table 109).

<sup>14</sup> The Reciprocity Convention did not go into effect until late December, 1903. That was also the first full year that Cuba was an independent republic and the year by which Cuban exports had recovered from the War of Independence and even surpassed 1895 export levels. Cuba's second War of Independence ran from 1895 to 1898,

century the US was characterized by relatively low US import duties and a number of tropical agricultural products entered the US duty free.

As Table 4 shows, of the products that entered the US duty free, only the value of Cuban exports of bananas and plantains was of substantial magnitude in 1903-05 and held significant US market share. The latter fell from 15% to 4% in the aftermath of WWI. The Cuban market share of fresh coconuts also fell precipitously over this period, and that of cacao also fell. After WWI, the main foreign suppliers of bananas and plantains to the US were Honduras, Costa Rica, and Jamaica.<sup>16</sup> Cuban exports of coconuts and cacao were in decline, partly due to competition from Trinidad and Tobago, Panama and Honduras in the case of the former, and the British West Indies, Ecuador and Brazil in the case of the latter.

Cuban cacao production fell after World War I primarily due to the expansion of sugar cane production (Truslow 1951). During the “Dance of the Millions”, when sugar prices reached unprecedented heights, cacao trees were uprooted to make way for cane, and a similar fate may have affected coconut groves. Citrus groves in Oriente were uprooted as well (Deere 1998). Even coffee production, which tended to be located in the more mountainous regions, suffered from the fever to put more land into sugar production (Fernández 2005). While Cuban coffee exports to the US show a slight recovery post-WWI, the value of coffee exports remained quite low and the country never regained market share from Brazil, Colombia and the Central American coffee exporters.

The positive impact of the Reciprocity Convention can be seen in terms of the performance of those fruits and vegetables subject to the 20% tariff reduction (shown as “duty free” in Table 4). The value of “all other fruits,” principally pineapples and grapefruit, more than tripled. In the early post-WWI period, Cuba was supplying 99% of US imports of pineapples and 95% of grapefruit. The value of Cuban exports of vegetables also grew spectacularly, although it was dwarfed in magnitude by pineapple exports. In this period, Cuba was supplying 12% of US imports of “other vegetables”, principally, the winter truck-garden crops; nonetheless, US imports from Mexico and Canada dominated this rubric.<sup>17</sup>

Overall, in 1903-05 some 70% of Cuban agricultural exports other than sugar and tobacco consisted of duty free traditional products, with those subject to duties comprising 30%. Post-WWI period this relationship had been reversed as a result of the incentive provided by the duty

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with the US intervening only in 1898 to quickly conclude the war. Reconstruction under US military rule was a slow process, given the level of destruction in the countryside; see Pérez (1989). Cuba’s first War of Independence, known as the Ten Year War, lasted from 1868 to 1878.

<sup>15</sup> This average has the advantage of smoothing out any potential impact of the 1919 “Dance of the Millions”, when sugar prices reached unprecedented heights, as well as the depression of 1920, when sugar prices crashed.

<sup>16</sup> The data on US imports from all sources is drawn from the same source as Table 4, USDC, *Foreign Commerce and Navigation of the United States*, various issues.

<sup>17</sup> Unfortunately, disaggregated import data on these “other vegetables” is only provided from 1934 on. Lloyd (1942) dates the production of Mexico’s production of winter vegetables for export to the decade of the teens, and also at the behest of American growers. These were largely produced in the northwestern states of Sonora and Sinaloa and shipped by rail to Nogales, on the Mexico-Arizona border, or by steamship to California ports. Cuban exports, in contrast, were usually shipped to either New York or New Orleans.

differential of 20%: traditional NST exports constituted only 30% and non-traditional exports, 70%, of the total average annual \$3.1 million in exports of these products to the US market. We can thus conclude that one of the beneficial impacts of the Reciprocity Convention was to broaden and diversify Cuba's agricultural exports.

### The Impact of Protectionism, the Great Depression and World War II

The 1922 Fordney-McCumber Act ushered in a period of higher US tariffs which peaked with the Smoot-Hawley Act of 1930. Cuba, with its automatic 20% reduction off US tariffs, should have been somewhat buffered from the full effect of US protectionism as compared to other foreign suppliers. However, the higher US tariffs of the 1920s disadvantaged Cuba with respect to domestic producers of similar products, including the non-contiguous territories of Hawaii and Puerto Rico.

Duty free items, which consisted of tropical products the US did not produce, were of course the least likely to be affected by rising US protectionism. In the aggregate, imports of these traditional NST commodities from Cuba show steady growth over the decade of the 1920s (from an average annual value of nearly \$1 million in 1918-21 to \$1.8 million in 1926-29), led by imports of bananas, and more modest increases in imports of other duty free fruit, principally avocados (Table 5). Nonetheless, Cuba did not manage to significantly increase its market share of bananas over this decade (Table 6). The average value of cacao imports was erratic, while coconut and coffee imports declined steadily.<sup>18</sup>

Turning to dutied commodities, while the value of imports of "all other fruits" increased from an average \$1.7 million in 1918-21 to a peak of \$3.2 million in 1922-25, thereafter they declined steadily until the late 1930s. This trend mirrors that of fresh pineapple imports from Cuba, what had become the island's most important non-traditional agricultural export. Also, grapefruit imports, show a steady decline in the average value of imports over the decade of the twenties. Since Cuba remained the main source of foreign imports of these commodities (Table 6), this suggests that it was principally these two products which were most adversely affected by higher tariffs and more intense domestic competition in the 1920s. US production of grapefruit doubled between the early 1920s and 1930s and, according to Minneman (1942), US exports of grapefruit exceeded imports, with Cuba providing a negligible share of total US consumption.

In the 1920s, the most spectacular increase in Cuba's non-traditional exports to the US was with respect to winter vegetables, whose value more than tripled from 1918-21 to the end of that decade, reaching an average \$1.6 million; tomatoes accounted for almost half of the latter value (Table 5). By the late 1920s Cuba was supplying 18% of US tomato imports and 23% of other winter vegetables, principally cucumbers, eggplant, peppers and okra (Table 6). It was the leading foreign supplier of these other truck crops, surpassed by Mexico only in the export of tomatoes.

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<sup>18</sup> Coconut imports declined even though only Cuba and the Philippines had duty free entry on a portion of their sales; in the late 1920s Cuba provided 100% of the duty free imports but a minimal share of those paying duty. Moreover, total US imports of coconuts were increasing, with Jamaica and Panama dominating this market irrespective of the higher tariffs they faced.

The contraction in US aggregate demand as a result of the Great Depression resulted in a fall in the value of Cuba's exports of fruits and vegetables to the US from an annual average of \$5.6 million in the late 1920s to \$4.6 million in the early 1930s (Table 5, bottom line). It is interesting that the non-traditional exports suffered greater losses than traditional NST exports, principally because US banana imports remained relatively stable while coffee and avocado imports from Cuba increased significantly. The increase in coffee imports from Cuba is related to the growth in Cuban domestic production in response to the import-substitution policies that the country adopted in 1927 (USDC 1956). Cuba's share of the US coffee market, nonetheless, remained negligible, while that of bananas increased marginally.

In the early 1930s, US imports of Cuban non-traditional fruits and vegetables declined. This decline was particularly steep for fresh pineapple, reflecting both demand factors and expanding domestic production in the US, as well as the fact that Cuba developed its pineapple canning industry in this period and began to export processed fruit. The fall in grapefruit imports may also partly reflect other internal factors, such as declining production from the now aging citrus groves on the Isle of Pines (Minneman 1942). Foreign competition was not a major factor, since Cuba continued to supply almost all of US imports of pineapples and grapefruit in the early 1930s (Table 6). In contrast, winter vegetables lost some market share and overall, were likely the most affected by decreased US demand, in addition to Cuba's two main traditional exports, sugar and tobacco.

Cuba's total exports to the US decreased from \$229.4 million in 1926-29 to \$82.2 million in 1930-33, largely due to the fall in the price and volume of sugar exports. The severity of the depression in Cuba was one of the reasons President Roosevelt urged speedy approval of the 1934 Reciprocal Trade Agreement. It entered into effect in September of that year, in time to encourage a spurt in winter vegetable production during late 1934.<sup>19</sup> Recall that this treaty gave Cuba substantial duty reductions on vegetables and certain fruits during the US winter season (Table 1).

Overall, the 1934 Treaty had a minimally positive effect on Cuban exports of fresh vegetables to the US, whose total average annual value increased in the 1934-37 period compared to 1930-33, but remained below the 1926-29 peak of \$1.6 million. The main winner was tomato exports which reached a new peak; Cuba's share of US tomato imports increased from 16% in the early 1930s to 40% in 1934-37.<sup>20</sup> While the island became almost the sole foreign supplier of cucumbers, eggplant and okra, the total average value of these other fresh vegetables in 1934-37 (which sum to \$319,859) was similar to the pre-treaty level (\$317,977 for "other vegetables"), perhaps reflecting continued stagnant US demand for fresh produce as the Depression ran its

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<sup>19</sup> The data for 1934 reported in *Foreign Commerce and Navigation of the United States* is already broken down to reflect imports from Cuba which came in under the special treaty rates versus the normal 20% duty reduction, demonstrating the immediate impact of the 1934 Treaty. In 1934, 81% of the okra, 30% of cucumbers, 29% of tomatoes and 7% of eggplant imports from Cuba were imported under the special treaty rates (see Table 7).

<sup>20</sup> This increase also reflects a steep decline in Mexico's tomato exports after 1930, which according to Lloyd (1942: Table 72), did not recover from the effects of the depression until the 1940s.

course.<sup>21</sup> Although both pineapple and grapefruit imports from Cuba received extra preferential treatment under the 1934 Treaty,<sup>22</sup> this did not stop a decline in the average value of imports of both products in the 1934-37 period.

In the late 1930s, the average value of US imports of dutied fruits and vegetables from Cuba continued to increase –perhaps facilitated by the 1934 Treaty—but in neither case did these imports reach their previous peak levels prior to the outbreak of World War II (for dutied fruit, the peak period was 1922-25 and for vegetables, 1926-29). With the outbreak of war in 1941, transportation became a problem and US imports of fresh vegetables from Cuba, with the exception of tomatoes, were among the most affected. The increase in the value of Cuban tomato exports during World War II, however, appears to be largely because of steep price increases, since Cuba lost market share to Mexico in the 1942-46 period (Table 6).

In sum, Cuba’s recovery from the Great Depression was facilitated more by the growth of its traditional duty free exports of bananas and avocados rather than the non-traditional products favored by the 1934 preferential treaty rates. The average value of banana and plantain imports from Cuba peaked in 1934-37 at \$2.9 million along with its US market share of foreign imports (at 10%), while avocados (of which Cuba was the sole foreign supplier)<sup>23</sup> reached a pre-war peak in 1938-41. The main other traditional NST export which continued to grow through WWII was coffee, and among the non-traditional exports, tomatoes.

As Table 7 shows, the 1934 treaty resulted in concentrating US imports of Cuban non-traditional fruits and vegetables during the months in which they were less likely to compete with US domestic production and when prices could be expected to be higher. There were a few negative consequences, however, to Cuba’s privileged access to the US market. In the case of grapefruit, concern was voiced that the concentration of exports in a small window of the year discouraged investment because of the difficulties faced in developing early ripening varieties to replace the aging tree stock (Truslow 1951). Moreover, the concentration of the non-traditional exports to the US to a few months of the year sometimes caused marketing problems, discussed in more **detail in a subsequent section.**

### World War II to the US Embargo of Cuba

In the post-WWII period, 1955-58 were the most prosperous years for Cuban NTS exports to the US, reaching an average annual value of \$13.4 million. This surge was led by a dramatic increase in one of Cuba’s traditional exports, coffee (Table 8). After a promising recovery in the

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<sup>21</sup> The value of US imports from Cuba of course also reflects prevailing prices, which could fluctuate substantially depending on growing conditions in Florida and California. Lloyd (1942) notes how Cuba and Mexico tended to benefit from frosts in these competing states, such as in 1939-40, which resulted in relative high prices and expanded acreage in both countries.

<sup>22</sup> Note in tables 1 and 2 that pineapples received a preferential reduction of 40% year-round while the preferential reduction for grapefruit of 40% was limited to the months of August and September.

<sup>23</sup> By a side agreement to the 1934 Treaty, Cuba agreed to limit avocado exports to the months of June to September in exchange for duty free treatment; the US maintained relatively high duties on the imports from other countries (USTC 1947).

level of non-traditional agricultural exports in the late 1940s, these stagnated in the early 1950s and then peaked in 1955-58, at a new historic high of \$4.5 million (Table 8, “sub-total, dutied”).

The surge in Cuban coffee exports to the US, reaching an annual average \$7.3 million in 1955-58, is all the more remarkable given that these had fallen substantially after 1946.<sup>24</sup> While domestic production had been increasing steadily as a result of Cuban protectionist measures, so had internal demand, resulting in Cuba importing coffee in some years (USDC 1956).<sup>25</sup> Worth noting for perspective was that in 1953, 5% of Cuba’s cultivable land was in coffee, compared to 61% in sugar cane (Fernández 2005: 316).<sup>26</sup>

The expansion in Cuban coffee exports helped cushion the dramatic decrease in the island’s banana exports to the US, which decreased tenfold in the 1951-54 period due to the combined impact of sigatoka and Panama disease. But the production of plantains for export had been growing from the 1940s on and, from 1954 to 1961, eclipsed bananas; taken together, they never regained their pre-WWII level.<sup>27</sup> Cuban cacao and avocado exports to the US performed somewhat differently, reaching their peak in the early 1950s, with their average annual value falling in 1955-58. Given its unique duty free status, Cuba dominated US imports of avocados (Table 9), but had to compete with US domestic producers.

The performance of non-traditional fruit exports from Cuba was lackluster, principally due to the fluctuations in the average annual value of Cuban fresh pineapple exports to the US. Beginning in the late 1940s, Cuba lost market share to Mexico, principally in bulk exports of pineapples destined for the US processing industry, while it retained the lead in crated fresh pineapple exports. Mexico also began challenging Cuba’s predominance in grapefruit imports to the US. In the mid-to late 1950s, however, Cuba made some inroads on Mexico’s dominance in orange and lime exports to the US market. Diversification in the number of different fruit exports from Cuba to the US continued up through the 1959 Revolution, with watermelon appearing in the 1940s and then mangoes from 1954 on (included under “other fresh fruit”). In 1958, nonetheless, Mexico was the dominant foreign supplier of both of these.

Turning to winter vegetables, the average annual value of Cuban exports of tomatoes to the US reached a historic peak in the 1947-50 period, when this commodity made up 8% of US imports of tomatoes (tables 8 and 9). Mexico remained the dominant supplier irrespective of Cuba’s special duty treatment during the months of December to February and its normal 20% duty advantage during the other months of the year. The most dynamic of the winter vegetable exports in the 1950s were cucumbers and okra. While the value of cucumber exports surged, US imports of cucumbers were growing at an even faster rate, and Cuba’s share of US imports decreased from 95% in 1947-50, to 76% by 1955-58, due to principally to competition from

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<sup>24</sup> US coffee imports from Cuba at this peak represented less than 1% of US total imports of coffee (Table 9).

<sup>25</sup> This USDC (1956) report predicted a historic coffee harvest of 102.5 million pounds in 1955-56, but does not explain the factors in how it was achieved.

<sup>26</sup> In terms of other crops, 5% was in fruit of all types, 3.6% in bananas and plantain, 2.3% in tobacco and 1.3% in vegetables, with the remainder in crops produced only for the internal market (ibid.).

<sup>27</sup> While Cuba was supplying less than 1% of total US imports of bananas and plantains in the 1950s (Table 9), by 1958 it was the top supplier of plantains, outcompeting the Dominican Republic and Haiti.

Mexico. Imports from Mexico were also responsible for Cuba's declining share of US eggplant imports. In contrast, from 1947-50 to the 1959 Revolution, Cuba was providing almost all of US imports of okra. Also worth noting is that Cuba continued to diversify the number of different fresh vegetables exported, with the category "other fresh vegetables" increasing notably in 1955-58 and in the early years of the Revolution.

The data for 1959-62 capture the initial impact of the 1959 Revolution followed by the embargo placed on imports from Cuba in late 1960. US imports of the fruits and vegetables did not decline drastically until 1961, hence the average annual total value for 1959-62 of \$4.4 million is not much below the level of \$4.9 million of the early 1950s.

#### 4. Cuban Fruit and Vegetable Exports to the US in Broader Perspective

Up to now we have considered only US imports of fresh fruits and vegetables in current prices for each period. In this section we focus on the long-term trend of traditional NST and non-traditional agricultural exports from Cuba to the US in constant 1960 prices. This is followed by an analysis of the growth of Cuba's fruit and vegetable processing industry and how this began to change the composition of its export bundle, as well as the share of fresh and processed fruit and vegetables in Cuba's total exports to the US.

As Figure 1 shows, in constant 1960 US\$, Cuba's non-traditional exports of fresh fruits and vegetables to the US grew rapidly up through 1922-25, led by pineapple and grapefruit exports, commodities in which Cuba became almost the sole foreign supplier. Cuban exports of tomatoes and other truck-garden crops contributed to this overall growth, which was largely related to the privileged position that Cuban imports held in the US market as a result of the 1902 Reciprocity Convention. Their potential dynamism appears to have been cut short by the growth of US protectionism after 1922, then the shock of the Great Depression which severely constricted external demand throughout the decade of the 1930s, combined with increasing US domestic production.

From 1903 to 1918-21, non-traditional agricultural exports served to compensate for the decline in traditional NST agricultural exports (see "total" in Figure 1). From 1925 through the Great Depression traditional NST agricultural exports outperformed non-traditional exports. In fact, it was traditional fruit and tree crop exports to the US, such as bananas and avocados, that served to somewhat cushion Cuba's dismal export performance during the Great Depression and which led the recovery of export earnings.

Figure 1 also suggests that the 1934 Reciprocity Agreement had a minimally positive effect on the production and export of non-traditional fresh fruit and vegetable exports. While the treaty, which concentrated Cuban exports in the US winter season, initially created an almost exclusive market for some vegetable exports, such as cucumbers, eggplants and okra, Cuba's share of the US market vacillated considerably, usually because of competition from Mexico. This was particularly the case in terms of tomatoes (the most important in export volume), which led the 1938-41 recovery of non-traditional exports, with Cuban tomato exports in that year representing

a high of 43% of US imports. But during and after World War II, Cuban tomato exports never reached more than 9% of total US imports, irrespective of its special US duty treatment.

The rather flat trajectory depicted in Figure 1 of Cuban non-traditional fresh fruit and vegetable exports to the US from the mid-1930s to the years immediately preceding the 1959 Revolution suggests that this sub-sector stagnated. However, before reaching such a conclusion we must consider developments in Cuba's food processing industry, particularly the production of prepared or processed fruit for export, since it constitutes one of the success stories of the post-WWII period.

Cuba's first pineapple canning factory oriented to the export market dates from 1928, and two others began operations in 1937 and 1939, the latter consisting of a cannery that was moved from Florida to Cuba (Lloyd 1942). From this period on processed pineapple exports to the US began to gain ground on fresh pineapple exports. The first vegetable processing and canning factory in Havana dates from 1935.<sup>28</sup> Tomatoes were the main processed vegetable, with modest volumes of canned tomatoes exported to the US when domestic surpluses warranted it.

As Table 10 shows, from 1947 to 1962 the combined value of Cuban exports of processed fruits, nuts and vegetables to the US almost rivaled that of fresh products in most years. With the exception of the early 1950s, the average annual value of Cuban exports of processed fruits to the US exceeded that of fresh fruits, with the dominant product being prepared and canned pineapple. Moreover, Cuban exports of processed fruit were capturing a larger share of the US import market than fresh fruit.<sup>29</sup> After a surge in exports of processed nut products (principally, shredded coconut meat) to the US in the late 1940s, these subsequently became negligible.

While the fruit and vegetable sub-sector both expanded, diversified, and generated forward linkages to agro-industrial processing in the post-World War II period, this sub-sector never constituted more than 4% of total US from Cuba and generally much less. As Table 11 demonstrates, sugar and sugar-based products continued to dominate exports, representing from 81% to 85% of exports to the US from 1947 to 1952, and then from 75% to 79% from 1953 to 1960. Tobacco and cigars followed, constituting between 6% and 9% from 1947 to 1960.

The relative decline of sugar exports in total Cuban exports to the US from 1953 on is partly related to the development of new agricultural and agro-industrial exports in the 1950s, as well as the growth of non-agricultural exports, related to mining and manufacturing activities. The new agricultural sector exports of the 1950s consisted primarily of livestock by-products and shellfish (listed under "all other agricultural & agro-industrial" in Table 11). However, while rivaling the fruit and vegetable sub-sector, these new exports never exceeded much more than 2% of total Cuban imports to the US. The peak year for these was 1956, when these totaled \$9.9 million, led by shellfish (\$3.5 million), inedible animal products (\$1.3 million), and leather

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<sup>28</sup> This canning factory, established by Barlomé Sanso Borday, a Spanish immigrant, canned tomatoes, peppers and beans under the label "Sanso". He was also a packer and shipper of fresh cucumbers (Jiménez 2004: 534).

<sup>29</sup> Note from Table 2 that fruit pastes and pulps and other processed fruits not specifically mentioned in this table received a minimum preferential reduction of 50% per the 1934 Treaty.

rawhide (\$1.3 million). Meat exports, while growing in the mid-1950s, were dwarfed by animal by-products until 1959 when meat exports reached a historic peak of \$1.6 million.

Considering the total value of US imports from Cuba, these reached a historic high of \$518 million in 1958, only slightly exceeding the previous 1947 peak (Table 11), but representing a significant decline in constant 1960 dollars (from \$682 million to \$531 million).<sup>30</sup> With respect to the share of the agricultural and agro-industrial sector in the composition of total Cuban exports to the US, from the late 1940s to the late 1950s this share was in decline, but was never lower than 87% (in 1957), illustrating some of the broader, but modest diversification of the Cuban economy that took place in this period.

The role of sugar in the Cuban economy was, nonetheless, made starkly apparent in 1960 when the US cut Cuba's sugar import quota and the value of total Cuban exports to the US plummeted to \$35 million in 1961 compared to \$342 million the previous year. The last US imports which are registered from Cuba, during 1963, are tobacco products which entered the US prior to the embargo and were released from custom warehouses in that year.

## 5. Production of Cuba's Non-traditional Agricultural Exports

In this section we turn to who developed, produced and exported Cuba's fruits and vegetables. The story of the expansion of sugar cane production and sugar exports in the early 20<sup>th</sup> century at the behest of large US capital, particularly in eastern Cuba, is well known (Jenks 1928; Foreign Policy Association 1935; McAvoy 2003). Much less attention has been given to the role of small and medium-size investors who engaged in the development of non-traditional agricultural exports, such as citrus, pineapples and fresh vegetables in the early decades of the century.

Many of the pre-conditions for the development of Cuba's agricultural export sector were put into place by the US Government of Occupation between 1899 and 1902. These included fostering the development of a land market and facilitating the construction of the railway that, for the first time, would connect eastern and western Cuba.<sup>31</sup> But what specifically encouraged the flow of American capital to the island and led to US dominance in the development of the export sector were the Platt Amendment to the Cuban Constitution – which promised policy stability-- and the 1902 Reciprocity Convention – which guaranteed Cuban exports favorable entry into the US market.

US-based land development companies played an extraordinary role in facilitating opportunities for North American investors in Cuba- small, medium and large (Jenks 1928; Pérez 1989; Deere

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<sup>30</sup> According to Wylie (1969), in 1958 67% of total Cuban exports of \$734 million were to the US, thus in the post-WWII period Cuba also succeeded in somewhat lessening its dependence on the US market. At that time, the US provided 70% of total Cuban imports of \$777 million.

<sup>31</sup> On the development of the land market, particularly why many Cuban landowners were forced to sell their properties and how Cuban peasants also lost their usufruct rights, see Pérez (1985; 1989). On the building of the central railroad by the Cuba Company and its role in opening up Eastern Cuba to US investment, see Zanetti and García (1987) and Santamarina (2000).

1998; Neagle 2012). These took the initiative in buying up bankrupt estates throughout the island and opening up the agricultural frontier in Oriente (eastern Cuba), particularly along the new railway of the Cuba Company.<sup>32</sup> In the early 1900s, this land was unbelievably cheap compared with land prices in Florida and California.<sup>33</sup> These land development companies, along with the Cuba Company, also played a major role in promoting the opportunities offered by investing in Cuba in the US, particularly in citrus, vegetable and pineapple production, and each of these experiences is discussed in turn.

### Citrus Production

The development of citrus production in Cuba took place under four principal modalities (Deere 1998). One was based on the incorporation of the land development company as a stockholding company in the US, which then purchased land in Cuba to develop a citrus plantation under the administration of a general manager. A second modality was for these plantations, once constituted, to then be sold as 10- to 40-acre citrus groves to absentee investors. In this case, management continued to be centralized with investors receiving a share of the net sales. A third was for the land development company to resell land to American investors capable of developing and working their own medium-scale plantations directly, which ranged from 500 to 5,000 acres in size. The fourth scenario, which involved the greatest number of American immigrants, was the development of settlements or colonies by the land development companies where land was generally resold in 10- to 40- acre tracts.

Some 37 American colonies had been established in Cuba by 1903; by the end of the next decade there were around 80 of these settlements (Deere 1998: 730). While most of these were populated by immigrants from the US, among the colonists were families from Canada, England, Scandinavia, Germany and Eastern Europe, some of whom formed their own colonies. While most of these settlements were located in eastern Cuba (in the provinces of Camaguey and Oriente) there was a dense concentration of settlers on the Isle of Pines (part of Havana province in that period) and a smaller concentration in the province of Pinar del Rio, in western Cuba.<sup>34</sup> Most of the settlements were established with the explicit purpose of developing citrus production for export.

Initially orange groves dominated, but by the early teens the US market was saturated by California and Florida production, and US imports of oranges became negligible. Thus orange production became principally oriented towards the internal market, making Cuba self-sufficient. After 1911, most of the colonies and citrus companies focused on developing grapefruit groves,

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<sup>32</sup> Some of these land development companies had previously been fruit importing companies or were multi-faceted, such as J.M. Ceballos & Co., John E. Kerr and Co. and West Indian Fruit Co. These are mentioned as among the 27 banana importing companies which were bought out by United Fruit Co. in the 1899 to 1905 period in Cohen (2012: 46-47).

<sup>33</sup> In the early teens, the price for large tracts of undeveloped land (between 5,000 to 20,000 acres) ranged from \$5 to \$20 per acre, depending on access to transportation. Small tracts of 10 to 100 acres could be purchased in the American colonies, subsequently described, for \$40 to \$100 per acre (Reno 1915: 49, 51).

<sup>34</sup> See Neagle (2012) on the colonies on the Isle of Pines; Jenks (1928) on those in Havana province; Deere et al (1998) on the few that flourished in central Cuba, in Las Villas; and that latter source as well as Deere (1998) on those in Oriente.

which accounts for the subsequent surge in grapefruit exports. A Cuban government official estimated that by 1915 there were 20,000 acres planted in citrus valued at US\$15 million. As he concluded, "...it may be said that the cultivation of citrus fruit in the hands of Americans has been most satisfactory" (Reno 1915: 37).

In many locales the citrus companies owned the packing houses that collected the products of the settlers and marketed these directly in the US. In some cases, the colonists formed their own marketing cooperatives. For example, in Oriente, citrus growers formed the Omaja Fruit Growers Association in 1914 to export grapefruit collectively to one commissioning agent in New York (Deere 1998).

The dynamism that these agricultural settlements reached is indicated by the fact that the colonists formed two national agricultural societies, and in 1912 they held four major agricultural fairs across the island. But after 1917 the colonies fell into decline, for different reasons in different parts of the island. All were impacted by a quarantine that the US placed on Cuban fruit after the Mediterranean fruit fly appeared on the island. The depopulation of the American settlements on the Isle of Pines was also precipitated by the effects of a ferocious hurricane that year. In eastern Cuba, the exodus was spurred by the effects of the 1917 Liberal uprising which caused considerable destruction of property in this region. The fact that the US did not intervene to quell the uprising also discouraged those that still expected Cuba to eventually be annexed to the US. Finally, after the US entered World War I, many of the young Americans in the settlements were drafted depriving their households of family labor (Deere 1998).

Among those settlers who did not leave as a result of the above factors, the rising land prices of the late teens, particularly in areas suitable for the expansion sugar cane production, subsequently proved irresistible. Plummeting sugar production in Europe during World War I sent international sugar prices sky high, ushering in what is known as the "Dance of the Millions" in 1919 and 1920. In Oriente, many settlers sold their citrus groves to Cuban investors who cut them down to plant cane, while many of the citrus companies also diversified into sugar cane. This expansion into cane temporarily came to a halt with the crash of sugar prices in late 1920.<sup>35</sup>

By the 1920s citrus production was becoming consolidated in medium-size enterprises, although conditions were not very favorable either for them or the remaining small growers. The presence of the black fly resulted in periodic quarantines against Cuban fruit up through 1926. Moreover, US import duties on grapefruit doubled in 1922, with the Fordney-McCumber Tariff Act, then increased again in 1930 under Smoot-Hawley, making the export of grapefruit less profitable (Deere 1998).

In 1930, *The Times of Cuba* (1930: 105) provided a list of the major fruit and vegetable producers engaged in production for export. It included 121 citrus growers, 80% of whom had English surnames. Some 60% of these citrus exporters were located on the Isle of Pines with most of the remainder located in Oriente; whereas the vast majority of growers on the Isle of

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<sup>35</sup> The price of a pound of sugar fell from a peak of 22.5 cents a pound in May, to 4 cents a pound in December 1920 (Jenks 1928: 219).

Pines were Americans, Cuban growers dominated in Oriente. Some 17 of these 121 growers produced and exported both citrus and vegetables, and the majority of these mixed producers were located in either Pinar del Rio or Havana provinces. Among the companies mentioned who both produced and exported citrus were the Buenaventura Fruit Co. (in Pinar del Rio), Southern Fruit Co., Upland Citrus Co. and the McKinley Packing Association (all on the Isle of Pines), and the United Fruit Company (in Oriente).<sup>36</sup>

According to Lloyd (1942: 222), the Isle of Pines supplied about four-fifths of Cuba's production of grapefruit and most of the exports to the US and the United Kingdom, the other major market. He reports that in 1927 there were at least 25 packing houses located there, with two of these operated by local associations of growers, and the rest being owned either by a single fruit enterprise or being independent packing houses which provided only this service. While exports to the US usually took place after Florida production was placed on the market and before the new crop from Texas and Florida entered, after 1934, exports of grapefruit to the US were confined to the months of August to October when the lower duty prevailed.

Analysts of the 1950s praised the advanced methods used on the Isle of Pines which produced high quality fruit, but noted that Cuba would do better if the low duty period was extended a month, through November. For Isle of Pines producers to deliver in August they required new strains and varieties of early maturing fruit (Truslow 1951; USDC 1956). In the 1950s industrial processing of grapefruit had yet to be developed.

### Winter vegetables

Reno (1915: 43) reports that the development of winter vegetables for export was also the initiative of American colonists: "With the advent of the American colonies in 1900, truck gardening sprang rapidly into prominence... They are usually planted at the close of the rainy season in October or November and are brought to maturity in time to reach the North during winter and early spring, when high prices prevail." He noted that the best results were obtained with early potatoes, tomatoes, eggplants, sweet peppers, okra, white squash and string beans.

Fernández (2005) also attributes the development of winter export crops to the opening of the US market through the Reciprocity Convention, the American colonists, and the role of Cuba's first modern agricultural experiment station, the Estación Central Agronómica, in Santiago de las Vegas (Havana province) in 1904. The experiment station was largely staffed by Americans up through the teens, and many of the field trials were carried out on the farms of colonists in this region. The director of the experiment station in this period, E.S. Earle, was himself a colonist in near-by Herradura.<sup>37</sup>

The export of winter vegetables to the US was a riskier proposition than grapefruit exports, since fresh vegetables were more perishable. While its production developed along the route of the

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<sup>36</sup> The majority of exporters were listed as individual male growers, but there were also a number of family owned enterprises, such as J.C. Arbeit & Sons and J.A. Miller & Sons on the Isle of Pines, and the Hermanos Gallardo and Diaz & Sons in Oriente. Four women were listed as owners, all American exporters on the Isle of Pines. Among the Cuban exporters listed in Havana Province was then President Gerardo Machado (*Times of Cuba* 1930: 105).

<sup>37</sup> See her detailed analysis of the modern agricultural practices which were introduced by the colonists.

Western Railroad, which facilitated delivery to the port of Havana, ocean transport was still pretty rudimentary, so that these products often arrived in the New York market in poor shape. Moreover, US wholesale buyers had fairly stringent standards and often rejected products such as tomatoes which were not of uniform size and shape. Combined with the growing emphasis in the US on meeting sanitary requirements, the export of whole lots could result in a loss (ibid.).

The *Times of Cuba* (1930:105) in 1930 listed the names of 150 major growers and exporters of these winter crops (including the 17 mixed citrus-vegetable exporters). The Cuban presence among these at that time was greater than in citrus, constituting 44%, while Americans made up 47% and Japanese exporters, 9%. Of the total, 41% were located on the Isle of Pines (suggesting production there had diversified over time), 32% in Pinar del Rio, 24% in Havana and the rest in Oriente and Camaguey. The 14 Japanese growers were located on the Isle of Pines; the Americans were divided between the Isle of Pines and Pinar del Rio (principally in Herradura) and the Cubans, in Pinar del Rio and Havana provinces. Among the grower-exporters constituted as firms were the Cia Agrícola de Puerto Nuevo and Juan Lorente y Cia. in Pinar del Rio; the Central Amistad, Central Providencia, the Week-end Nursery,<sup>38</sup> Estrada Hermanos in Havana province; and Godíñez Hermanos in Oriente. The remainder were individual grower-exporters.<sup>39</sup>

Several decades later, a US Department of Commerce report notes in passing that the production of winter vegetables “provides income for many small farmers” in Cuba (USDC 1956: 43). But there is not much evidence regarding whether Cuban small farmers were able to engage in either citrus or vegetable production for export. Fernández (2005:269) argues that while the opening of the US market stimulated a certain degree of diversification in Cuba’s export mix, “the Cuban government was unable to set in place the necessary mechanisms to incorporate small farmers, and that these continued to opt for the crop which was much more lucrative and secure, cane sugar, along with their traditional subsistence production.”

Given the degree of land concentration in Cuba in large plantations and estates, there were few small independent farmers in the 1940s, with those that existed concentrated in western Cuba, in the provinces of Matanzas, Havana and Pinar del Rio (Tuthill 1949).<sup>40</sup> The 1946 Agricultural Census revealed that of Cuba’s 159,958 enumerated farms, only 30.5% were worked by their owners. Small farms, those less than 25 hectares, represented 69.6% of total farms. Of these, 30.9% were rented (or sub-rented), 25.7% were sharecropped and 27.7% were owner-operated, with the remainder being squatters or in other forms of tenancy. Among owner-operated farms, the densest concentration of small farms was in the provinces of Havana and Pinar del Rio (see Appendix, tables A1 and A2); the main cash crop of most of these, similar to those of tenant farmers, was either sugar cane or tobacco.

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<sup>38</sup> Founded in 1927, the Week-end Nursery was an importer of insecticides, garden implements and equipment; its president was Federico Morales Varcárcel. In 1941 its name was changed to Tropical Agriculture, and was later owned by Evelio Mederos and Carlos Maldonado (Jiménez 2004: 590).

<sup>39</sup> Three women were listed among the vegetable exporters, two in Herradura and one in Nueva Gerona on the Isle of Pines.

<sup>40</sup> Also see Foreign Policy Association (1935) on land concentration and the relative scarcity of owner-operated small farms in Cuba. They advocated that the government undertake a comprehensive agrarian reform.

Tuthill (1949) provides an interesting case study of one Cuban owner-operated farm in Havana Province, which might have been an exception to the general trend. With approximately 40 acres of land, this household carried out diversified crop and livestock production and managed to export some winter vegetables. The main cash crop was tobacco, complemented by corn and banana production for home consumption as well as sale in local markets. Around a dozen different vegetables were grown, principally by the farmer's wife and children, also for home consumption and sale. This farm had recently begun producing three vegetables for the US market—eggplants, tomatoes and peppers (exporting 50, 100 and 200 fifty-pound boxes, respectively) -- through a dealer in Havana City.

According to Lloyd (1942), prior to 1930 most vegetable production, particularly tomato production, was financed by Havana export agents who advanced funds for the acquisition of seeds, seedlings, fertilizer and labor costs; this financing was curtailed after US import duties were raised by Smoot-Hawley. Analyzing the 1940s, the World Bank Mission considered both crop financing and marketing methods to be problematic. According to the Truslow report (1951: 867), "For many years large US commission houses have advanced much of the money for growing winter vegetables in Cuba." But it appears that in the 1940s this financing was again waning in the face of the growing competition of US domestic growers and Mexican exporters. The report, however, considered the financing squeeze to be beneficial for Cuban long-term development, since the Cuban Growers Association had been forced to turn to local banks for a \$375,000 loan to finance the crop. Prior to this, the agricultural sector – with the exception of sugar and tobacco production– had been virtually ignored by private banks. Moreover, at the time of this report the Cuban government was about to create a new development bank, the Banco de Fomento Agrícola e Industrial (BANFAIC). The World Bank Mission recommended that it undertake the regular financing of production of winter vegetables.<sup>41</sup>

The marketing problem noted by the World Bank Mission was that the winter vegetable crop, being concentrated in a short period when duties were lower, was usually auctioned as a boatload in the New York City market, often depressing prices below the Cuban wholesale price. In contrast, US domestic producers had more stable operations, since they could sell smaller quantities throughout the growing season and had more diverse markets. The World Bank Mission also considered lack of sufficient development of the domestic vegetable canning industry a bottleneck to the further expansion of vegetable production.

It seems that by 1959 the external marketing problem for tomatoes had not been solved. A study of the Havana province municipalities of Güines, Melena del Sur and San Nicolás, the major tomato producing region in the country, found that total production had diminished considerably since 1951, when 100 caballerías had been planted in that crop; production at that time yielded some 500,000 boxes of tomatoes, 40% of which was exported, with the rest destined for the

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<sup>41</sup> BANFAIC began operations in 1951. It is difficult to evaluate whether it fulfilled this role. In 1955 6% of its total financing went to "other crops" such as potatoes, plantains and 15 other products, including winter vegetables, with an almost similar amount to coffee production. Two-thirds of its total financing of almost US\$18 million in that year was channeled to the domestic rice industry, considered the priority for import-substitution purposes (BANFAIC 1956). BANFAIC did apparently give some attention to small producers, organizing these into Rural Credit Associations.

domestic processing industry. Tomato acreage had been reduced in favor of sugar cane production which yielded higher profits. Moreover, the authors considered tomato production to be particularly risky, because of climate and disease as well as the instability of the US market. New York City auctions in the late 1950s had reportedly resulted in prices that did not cover transport costs. As growing numbers of producers switched to other crops, exporters were forced to take on greater risk, buying the crop in the field and harvesting it themselves as market conditions allowed. A positive note was that some of the exporters were diversifying their investments by developing processing facilities oriented to the domestic market (BANFAIC 1959).

At least one group of US entrepreneurs solved the marketing problem in the late 1950s by introducing air transport of tomatoes directly to US markets. The firm Copa leased a good amount of land in the vicinity of Manacas (in the current municipality of Santo Domingo, Villa Clara) and employed up to 400 people in the production, harvesting and packing of this crop. Another American entrepreneur who leased lands in this region for tomato production for export was a resident of the Isle of Pines who exported under the label of Seabrook (Deere et al 1998: 148-49).

### Pineapples

While Cuba had exported pineapples in the late 19<sup>th</sup> century, the concerted development of pineapple exports can also be attributed to the Reciprocity Convention, the American colonies, and the role of the Santiago de las Vegas agricultural experiment station (Fernández 2005). In 1906 the main producers for export, including colonists with 5 to 10 acres planted in pineapples, were located in the provinces of Havana and Pinar del Rio, along the Havana Central Electric Railroad (Reno 1915). During this decade, pineapples were generally shipped in pine wood baskets to New York, and often arrived in very poor shape. Researchers at the experiment station focused their attention on developing varieties of pineapples as well as winter vegetables that would better withstand shipping conditions (Fernández 2005).

In contrast to citrus and vegetable production, pineapple production for export may have become even more concentrated over time on relatively large plantations which were owned by Cubans.<sup>42</sup> Among the early Cuban growers were the Godíñez brothers in Artemisa. They provided the initial financing for at least one future pineapple magnate of relatively humble origins, Benito Remedios Lang, who had worked for them as a wage worker. Remedios Lang came to own several pineapple and vegetable farms in Guira de Melena and eventually a pineapple plantation and cattle ranch in Camaguey (Jiménez 2006: 461).<sup>43</sup> Another important pineapple grower and exporter was Manuel Pérez Galán of Artemisa who came to own multiple farms in Havana province, producing in addition to pineapples, tomatoes and other fruits and vegetables, rice,

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<sup>42</sup> In 1930 *The Times of Cuba* lists only four main growers exporting pineapples, all Cuban. Among them were Vicente Milián in Bainoa, José Maria Cardo in Bejucal, Manuel Martínez in Guira de Melena, all in Havana province, and Enrique Díaz of Baracoa in Oriente.

<sup>43</sup> Remedios Lang was to serve multiple times as a congressman and in 1933 as senator for Havana province. In 1949 he became co-owner of the Central Río Cauto, had several cane *colonias*, and at his death was worth \$7 million (ibid.).

tobacco and cane. He subsequently became one of the largest pineapple producers in Ciego de Avila (ibid, 438; Jiménez 2004: 288).<sup>44</sup> Both Remedios Lang and Pérez Galán were among the founders in 1934 of the Fruit and Vegetable Shipper-Growers' Association of Cuba (del Toro 2003: 192).<sup>45</sup> Lloyd (1942) considers this association in this period to have provided some 80% of Cuban pineapple exports.

According to the 1940 Pineapple Census, at that time there were some 643 growers (Minneman 1942:65). Of these, six growers owned or controlled 22 farms which produced 36% of the total crop. These same six growers financed the crops of 178 smaller growers who produced 24% of total production. Minneman, who was the US Agricultural Attaché in Havana at the time he was writing, thus concluded that six growers controlled 60% of total production, including all production for export, with the remaining production oriented toward the internal market and/or the processing industry. Notwithstanding the discrepancies in these reports, there is consensus among those writing in the late 1940s that fresh pineapples produced for export were generally grown on large-scale holdings and by Cubans (USTC 1947; Nelson 1950).<sup>46</sup>

Pineapples constitute the main fruit crop where forward linkages to the processing industry were developed fairly early on, and, as noted earlier, were exports of processed fruit came to rival exports of the fresh fruit. It may be that smaller producers, who could not meet the standards required for the export of fresh fruit, found a market in this expanding industry.

Several Cuban pineapple grower-exporters established not only canning factories but also industries supplying the export effort. Pérez Galán owned not only a canning factory in Havana province, but in 1935 established one of the first factories mixing imported chemical fertilizers near Havana city as well as a carton factory, developing backward linkages for the pineapple industry (Jiménez 2004: 487-88). Another important fruit processing complex established in the pre-World War II period was the Industrias Ferro S.A. in Luyanó, Havana, which produced fruit juices and canned fruits and vegetables under the label "Conchita."<sup>47</sup> The expansion of these processing facilities was fortuitous in the World War II period, since with shipping possibilities for fresh fruit curtailed, much of the crop could be canned and then stored for export at a later date (USTC 1947).

The number of pineapple processing facilities continued to expand in the post-WWII period, both in Pinar del Río and Ciego de Avila. Among the former were Conservas San Cristobal, established in 1948 by the Havana Pineapple Company (owned by Dennis Figeroux Harris, originally of Trinidad), and Conservas Clipper S.A. in Candelaria (owned by Octavio Verdeja Neyra, a former congressman and sugar mill owner) (Jiménez 2004: 207). Pérez Galán

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<sup>44</sup> He was also a congressman and senator for Pinar del Río multiple times.

<sup>45</sup> Other leaders of this association were Frank Javier Laguera and Simeón Ferró Martínez (del Toro 2003: 192).

<sup>46</sup> Fernández (2005) also mentions, citing Leví Marrera, that pineapples in the 1940s were grown on large plantations.

<sup>47</sup> Simeon Ferro was a senator in 1958, Vice President of the Asociación de Cosecheros Exportadores de Frutas y Vegetales, and a partner with Julio Lobo Olavarría in several sugar mills in Pinar del Río, in addition to being a large *colono* himself. Along with his brother, he also owned several large retail food stores in Havana and Pinar del Río (Jiménez 2006: 220).

established the largest pineapple processing plant to date in 1956 in Ciego de Avila, the Empacadora Majagua, with a capacity to process 800,000 boxes (ibid.).

### Traditional Exports: Avocados and Bananas

For comparative purposes, of the duty free traditional NST agricultural exports, for reasons of space, only avocados and bananas will be discussed here. What is particularly interesting about both of these commodities is that production for export was developed by Cubans and remained in Cuban hands, and seems to have always involved small and medium-size Cuban growers.

Compared to bananas, not much information is available on avocado production for export; it would be worth studying in more depth since in the post-WWII period avocados were Cuba's number two fresh fruit export after pineapples (USDC 1956). We know that production of avocados, a native tree crop, takes place all over the island, but that production for export in the period under study was concentrated in the provinces of Pinar del Rio and Havana, generally within a 30 to 60 miles radius of Havana city, the principal export port (Minneman 1942). In 1930 the *Times of Cuba* listed only five main grower-exporters, all Cubans, four of these in Havana province. According to Minneman (1942), however, only about one-tenth of export production was from large orchards, with the remainder supplied by small farms with five to 100 avocado trees. Whereas the larger growers packed their own avocados for export, about half of the export volume was handled by dealers who purchased, graded and packed the crop produced by smaller growers.

While several of the precursor companies to what would become the major banana producing and trading corporations of the first half of the 20<sup>th</sup> century (United Fruit Company and Standard Fruit and Steamship Company) were importing bananas from Cuba in the late 19<sup>th</sup> century, for various reasons these dominant companies refrained from establishing large-scale banana plantations in Cuba as they did in Central America and elsewhere. Among those companies mentioned in connection with the expansion of Cuba's banana exports in the late 19<sup>th</sup> century are Boston Fruit Co. (incorporated in 1885 by Andrew Preston and Lorenzo Dow Baker, who would go on to form United Fruit Co. in 1899) and the Atlantic Fruit Co. of Joseph DiGiorgio (a major citrus grower and fruit importer in Florida and California who would become a partner of the Vaccaro brothers, founders of Standard Fruit) (Karnes 1978).

Equally important in the early expansion of Cuban banana exports were the Cuban-born Dumois brothers,<sup>48</sup> who began purchasing lands suitable for banana production in the region of Baracoa and then Banes in Oriente in the 1887-1985 period (Zanetti and Garcia 1976). By the time of the War of Independence they had established three companies: The Banes Fruit Co., which owned the Hacienda Banes (consisting of 22,284 acres), the majority of which was planted in bananas; the Samá Fruit Co., which purchased bananas from independent growers; and the Dumois Fruit Co. of New York, which imported the fruit. In this period, Dumois Fruit Co. was importing some 40% of the bananas which were exported from Cuba through the port of New York (ibid.).

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<sup>48</sup> According to Zanetti and Garcia (1976), the patriarch of the Dumois family was originally from New Orleans and moved to Santiago, Cuba, in the early 1800s, initially involved in the coffee trade.

The Hacienda Banes was destroyed during the War of Independence, forcing the Dumois brothers to seek financing from Boston Fruit to maintain its operations. By 1899, the year United Fruit was founded, Preston appears as the president of both Banes Fruit Co. and Samá Fruit Co. That same year, Banes Fruit Co. (which owned 60,245 acres of land) was merged with United Fruit (Zanetti and García 1976). Hipólito Dumois became the first manager of United Fruit at its Banes site, rehabilitating the banana plantation and purchasing more land for United Fruit. After he is replaced as manager in 1901, he begins purchasing land in the nearby Nipe Bay area both in his own name (as the Dumois Nipe Co.) and for United Fruit, as Nipe Bay Corporation.

United Fruit's interest in Cuba, however, centered on developing sugar production for export, and its first mill, the Central Boston, went into operation in 1901. According to United Fruit's 1902 Report to Stockholders, the book value of its Cuba division in that year was \$4,151,834 (United Fruit 1902: 37). It owned 72,330 acres in Banes, of which 6,018 acres were planted in bananas and 7,850 acres in cane. Over the next decade, however, bananas are uprooted to make room for expanded cane production. In its 1914 Report to Stockholders, only 111 acres in banana production are reported for 1913 and 88 acres the next year (United Fruit 1914: 15).<sup>49</sup> A perusal of these annual reports from 1926 to 1947 suggests that United Fruit never again produced bananas for export in Cuba.<sup>50</sup> While in its early years the company continued to purchase bananas for export (such as from the Dumois Nipe Co. who was selling some 700,000 to 800,000 banana bunches per year), it appears that, by 1905, it was no longer purchasing bananas in Cuba either (Zanetti and Garcia 1976: 99), concentrating its banana production and export activities in Central America.

The role in purchasing bananas for export on the north coast of Oriente may have passed to Joseph DiGiorgio's Atlantic Co., who Zanetti and Garcia (1976) report as purchasing the banana output of Dumois Nipe Co. in 1905.<sup>51</sup> By the 1920s, if not earlier, DiGiorgio was also involved in banana production in Cuba. In 1922 he incorporated the DiGiorgio Cuban Fruit Co. based in Baracoa in Oriente, a wholly owned subsidiary of the Mexican American Fruit and Steamship Company (which in 1927 became the American Fruit & Steamship Company). Both of these companies were partnerships between DiGiorgio and the Vaccaro brothers (who incorporated

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<sup>49</sup> In 1914 it also had 694 acres in orange production, 846 in cocoa and 150 in coconut trees, and 33,864 acres in sugar cane production out of a total 64,953 acres of improved land in both Banes and Nipe Bay. It owned another 62,517 acres of unimproved land, for a total of 127,470 acres (United Fruit 1914: Appendix C and B). United Fruit invested in a second sugar mill, the Central Preston, on Nipe Bay in 1907. The Nipe Bay Corporation was fused with United Fruit Company in the 1917 to 1923 period; it also absorbed the Dumois Nipe Corporation. According to Zanetti and García 1976: 65-66), by 1919 United Fruit Company owned 6227 caballerías (206,238 acres) in Cuba.

<sup>50</sup> *The Times of Cuba* (1930), apparently erroneously, reports United Fruit at Preston as one of the two major producers exporting bananas in 1930; the other one listed was Manuel Martínez in Guira de Melena, Havana province.

<sup>51</sup> By 1912 the Dumois Nipe Co. had become the Saetia Sugar Co. and its production had switched to cane sugar, to supply the Preston mill. In 1919 it was incorporated into United Fruit Co. (Zanetti and García 1976).

their Standard Fruit and Steamship Company in 1923); they would all eventually become part of Standard Fruit and Steamship Corporation.<sup>52</sup>

In 1924 the value of the DiGiorgio Cuban Fruit Co. investment at Baracoa is reported as \$205,057. In that year it exported \$51,850 worth of bananas and \$1,016 of coconuts.<sup>53</sup> The value of this company's banana exports represented less than 5% of Cuba's exports of bananas to the US in this period (see Table 5), suggesting that this company was only one of many banana growers and exporters.<sup>54</sup>

The peak period of banana production for export to the US was from 1934-37 (Table 5); the subsequent decline in production and exports is largely blamed on the spread of both the Panama disease and sigatoka. The USTC (1947: 36) reports that the large US fruit importing companies basically stopped purchasing the fruit in Cuba after this due to the combined effect of the spread of plant and soil diseases, the shipping problems caused by World War II, and low prices and rising costs of production.

Minneman (1942: 61), commenting on trends of the late 1930s, says that the greatest production of bananas in Cuba, "including exports, is grown by small farmers on hillsides in the mountain regions." He speculated that the spread of the sigatoka disease might lead to the development of larger plantations on level land, since containing this disease requires investment in irrigation and spraying equipment and hence, economies of scale. Similarly, the Truslow (1951) report considered that bananas might do better in Cuba if grown on larger plantations, implying that the main producers throughout this period had been small and medium-sized growers.

In sum, from this brief overview of the growers of Cuba's fruits and vegetables in the 1898-1958 period, it is apparent how this sub-sector was much more heterogeneous than Cuba's sugar sector. With the possible exception of pineapples, small and medium growers rather than plantation agriculture prevailed. Moreover, while American capital and producers played a predominant role in establishing many of the non-traditional exports in the early decades of the 20<sup>th</sup> century—particularly citrus, vegetable and pineapple production-- by the end of the 1930s most vegetable and fruit production for export was in Cuban hands. Much more primary

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<sup>52</sup> This reconstruction is based on Karnes (1978) and a perusal of the Standard Fruit and Steamship Co. Records, 1900-1977, Louisiana Research Collection, Tulane University, Boxes 4 and 5; accessed March 2, 2015.

<sup>53</sup> "Balance General correspondiendo al año terminado en diciembre 31, 1924". Folder 55, Box 4, Standard Fruit and Steamship Co. Records, Louisiana Research Collection.

<sup>54</sup> In 1933, when all of DiGiorgio's interests in banana production and trade were merged with Standard Fruit, the book value of the DiGiorgio Cuban Fruit Co. was estimated at \$352,297, of which \$176,756 correspond to its land and banana trees in Baracoa, and the remainder to its railroad and equipment, building and wharves, other machinery and equipment, and livestock. Letter of September 25, 1933, from R. McClellan, Comptroller of Standard Fruit and Steamship Co. of New Orleans, to Mr. J. W. Guntzer of New York; Folder 19, Box 5, Standard Fruit and Steamship Co. Records, Louisiana Research Collection. It appears that Standard Fruit later divested itself of these holdings; in 1946 the value of this company's investments in Cuba are reported as consisting of only \$25,995 in addition to the wholly-owned Cia.de Almacenes Atares (Karnes 1978: 262).

research is required, nonetheless, to fill out the sketch presented here, and particularly, on how the production and export of these crops was financed and marketed.

## 6. Conclusion

As noted at the outset, the dominance of sugar in the Cuban economy obscures the considerable diversification in Cuban agricultural exports to the US that took place in the early decades of the 20th century and later, in the post-World War II period. The 20% discount on US duties provided by the 1902 Reciprocity Convention served as an important incentive for both American and Cuban growers to experiment with new crops and develop non-traditional exports geared to the US market.

As Figure 1 showed, Cuba's non-traditional agricultural exports to the US grew rapidly up through the mid-1920s, led by pineapple and grapefruit exports, commodities in which Cuba became almost the sole foreign supplier. The potential dynamism of these non-traditional fresh fruit and vegetable exports appears to have been cut short by the growth of US protectionism, the Great Depression which severely constricted external demand throughout the decade of the 1930s, as well as increasing competition from US domestic producers.

Compared with the 1902 Reciprocity Convention, the 1934 Reciprocity Agreement had a minimally positive effect on the production and export of non-traditional fresh fruit and vegetable exports. Cuba's recovery from the Great Depression is more closely associated with the better performance of the traditional NST exports, such as bananas and avocados, and particularly, the more favorable terms that sugar acquired in the US market. While the treaty, which concentrated Cuban exports in the US winter season, initially created an almost exclusive market for some vegetable exports, such as cucumbers, eggplants and okra, Cuba's share of US imports vacillated considerably, usually because of competition from Mexico. This was particularly the case in terms of the most important crop in export volume, tomatoes. While Cuban tomato exports reached a high of 43% of US imports in 1938-1941, after World War II they never represented more than 9%, irrespective of its privileged US duty treatment.

The rather flat trajectory depicted in Figure 1 of Cuban non-traditional fresh fruit and vegetable exports from the mid-1920s to the years immediately preceding the 1959 Revolution raises the question of why the favorable treatment ceded to Cuban products in the US market did not do more to diversify Cuban agricultural exports. A number of factors—both external and internal—explain the overall underwhelming performance of this sub-sector in terms of the value of exports achieved.

Among the external factors was vacillating US trade policy over these sixty years. During periods of high protectionism Cuba was somewhat buffered from foreign competition by its special relationship to the US. However, increases in US tariff levels made Cuba less competitive against US domestic producers. In addition, US production of fruits and vegetables expanded rapidly over this period, as did the voice of the California, Texas and Florida fruit and vegetable industry lobby. Moreover, as scientific understanding of fruit and vegetable pests and diseases improved, new sanitary and phytosanitary regulations were implemented which

continually raised the bar on the quality of imports. These explanations, however, do not shed much light on why Mexico was able to gain US market share on Cuba in these commodities, a topic that needs to be explored in more depth.

The relatively weak performance of this sub-sector is also related to internal Cuban policies and dynamics. The former focused on creating the conditions for profitable sugar production and exports, and to a lesser extent, for tobacco, the second major export. Cuba's other traditional agricultural export products, such as coffee, cacao, coconuts and bananas, often languished, suffering from neglect. Since these commodities entered the US duty free, along with those from every other country, Cuba's exports had to be internationally competitive to gain market share. The exception here is avocados, which for most of this period had exclusive duty free access to the US market during the off-season for US domestic production, and which was the star performer of the traditional NST agricultural exports in the post-World War II period.

The concentration of land, labor, capital, and agricultural research on sugar stymied diversification in multiple ways (Fernández 2005). In most periods, the above world market prices sugar exports could command in the US probably made the growing of sugar cane more profitable than any other agricultural activity, although this would need to be examined in more detail. The growing of cane may also have been less risky than fresh fruit and vegetable production, providing growers with little incentive to diversify. In addition, both traditional NST and non-traditional agricultural exports suffered directly from "sugar mania" when they were displaced whenever high sugar prices prevailed. As we have seen, rising sugar prices at various times resulted in the uprooting of tree crops such as cacao, coffee, coconuts and citrus, as well as the conversion of lands in banana and vegetable production to sugar cane production. These factors partly explain why, even under favorable tariff concessions for fruits and vegetables, Cuba often lost US market share to foreign competitors such as Mexico throughout these sixty years.

From an economic development point of view, the bright spot in the otherwise discouraging trajectory of non-traditional fresh fruit and vegetable exports, were the backward and forward linkages which these products generated in the Cuban economy. The value of exports of processed fruit in the post-World War II period came to rival that of fresh fruits, while the growth of the domestic vegetable and fruit canning industry contributed somewhat, if insufficiently, to lessen Cuba's dependence on food imports.

Among the lessons that can be drawn from this analysis of Cuba's special relationship with the United States from 1903 to 1960 is that preferential tariffs can be a powerful stimulus, yet by themselves may not be sufficient to transform a country's export profile. A number of other factors need to be in place in order to both develop and sustain the growth of non-traditional exports, such as agricultural research, and financing and marketing channels, to mention a few.

Looking forward, to the eventual normalization of US-Cuban trade, the world is a much different place than in 1959. US tariff levels have fallen to historic lows and trade agreements have proliferated globally. In the Hemisphere, the US now has free trade agreements with Mexico and Canada (NAFTA), Central America and the Dominican Republic (CAFTA), Chile, Panama

and Colombia. This means that once the US embargo is lifted, and full US-Cuba trade can resume, Cuba may find itself in the position of being among the few Latin American countries facing full tariffs for its products in the US market. What is potentially worrisome for Cuba, given the historical record of trade reviewed in this paper, is the current privileged position of Mexico in the US market for fresh and processed fruits and vegetables. Whether Cuba will attempt to once again compete with Mexico in this sub-sector, or focus its efforts again on sugar and sugar by-products, or on non-agricultural sectors in which it holds a potential comparative advantage, remains the big question.

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## Tables

Table 1. Preferential Duty Rates for Cuban Exports of Fruits & Vegetables to the US Market, with Seasonal Preferences, 1941

Product	Minimum seasonal preferential reduction	Duty rate, US winter season	Months when applicable	Duty rate during rest of the year	Smoot-Harley Act rate
Grapefruit	40%	0.6c/lb.	Aug-Sept	1.2c/lb.	1.5c/lb.
Lima beans	40% (60%)	1.4c/lb.	Dec-May	2.8c/lb.	3.5c/lb.
White/Irish potatoes	50% (60%)	0.3c/lb.	Dec-Feb	0.6c/lb.	0.75c/lb.
Tomatoes	20% (40%)	1.8c/lb.	Dec-Feb	2.4c/lb.	3.0c/lb.
Cucumbers	50% (60%)	1.2c/lb.	Dec-Feb	2.4c/lb.	3.0c/lb.
Eggplant	50% (60%)	0.6c/lb.	Dec-March	1.2c/lb.	1.5c/lb.
Okra	50% (60%)	20% ad val.	Dec-May	40% ad val.	50% ad val.
Peppers	20% (40%)	1.5c/lb.	Jan-April	2.0c/lb.	2.5c/lb.
Squash	20% (40%)	1.2c/lb.	Dec-May	1.6c/lb.	2.0c/lb.

Sources and notes: USDS (1942), *US-Cuba Reciprocal Trade Agreement of 1934, as Amended in 1939 and 1941*, Schedule II, pp. 46-50. In parentheses, under the seasonal preferential reduction, is the actual reduction achieved as reported by Minneman (1942: Table 38) which in most cases is greater than the minimum provided by the treaty. The duty rate during the rest of the year and the Smoot-Harley Act rate is also drawn from this source.

Table 2. Preferential Duty Rates for Cuban Exports of other Agricultural-based Products, 1941

Product	Minimum preferential reduction to Cuba	Maximum rate of duty
Sugars	20%	0.51375c/lb.
Molasses & sugar syrups	20%	0.1c/gal.
Wrapper & filler tobacco (unstemmed)	20%	91c/lb.
Cigars	20%	1.80/lb & 10% ad val.
Beef & veal	20%	3c/lb.
Fish, fresh & frozen	20%	0.4c/lb.
-processed	20%	1c/lb.
Corn	20%	1c/bushel
Limes	20%	0.8c/lb.
Mangoes	20%	6c/lb.
Pineapples	40%	20c/crate
-candied	20%	14% ad val.
Jellies & jams	20%	14% ad val.
Fruit pastes & pulps	50%	14% ad val.
Other fruits, natural or processed	50%	14% ad val.

Note: For sugars, molasses and tobacco the regulations differentiate in great detail based on product characteristics. Only the major category of imports is reported here.

Source: USDS (1942), *US-Cuba Reciprocal Trade Agreement of 1934, as Amended in 1939 and 1941*, Schedule II, pp. 46-50.

Table 3. Composition of US Imports from Cuba, 1900-1925 (in millions of current US\$)

Period	Total Imports	Sugar		Tobacco		All other products	
	Total av. value	Total av. value	%	Total av. value	%	Total av. value	%
1900-03	43.3	26.5	61.2	11.7	27.0	5.2	11.8
1904-09	91.5	66.4	72.6	16.8	18.4	8.3	9.1
1910-14	122.1	91.7	75.1	19.1	15.6	11.3	9.2
1915-18	229.9	139.3	82.4	17.3	7.5	23.3	10.1
1919-21	456.9	412.3	90.2	26.9	5.9	17.8	3.9
1922-25	716.9	268.1	84.6	25.9	8.2	22.9	7.2

Source: USTC (1929): Table 10.

REVISED Jan 23, 2016 –

Table 4. US Imports of Fresh Fruits and Vegetables and Tree Crops from Cuba by Duty Status, 1900 to early 1920s (current US\$)

Product	1900-1902 (av. annual)	Cuban share of US imports	1903-1905 (av. annual)	Cuban share of US imports	1918-1921 (av. annual)	Cuban share of US imports
<b>Free of duty</b>						
Coffee	4,994	negl	6,159	negl	28,199	negl
Cacao	292,347	5.2% <sup>f</sup>	197,709	3.9%	84,110	negl
Coconuts	153,127	22.9% <sup>f</sup>	233,491	23.6%	55,952	1.7%
Bananas & plantains	386,316	7.2% <sup>f</sup>	1,299,584	14.9%	683,002	3.9%
Other fruit <sup>a</sup>	13,664	3.9% <sup>f</sup>	19,060	4.3%	93,666	3.8%
<i>Sub-total, free</i>	<i>850,448</i>		<i>1,756,003</i>		<i>944,929</i>	
<b>Dutied</b>						
All other fruits	239,581		657,923		1,740,204	
Of which: Pineapples	n.a.	n.a.	n.a.	n.a.	1,213,071	99.3%
Grapefruit	n.a.	n.a.	n.a.	n.a.	477,200	95.3%
Other citrus <sup>b</sup>	1,391 <sup>f</sup>	negl	3,007	negl	7,006	negl
Other	238,190	18.7% <sup>f</sup>	654,916	29.3%	42,927 <sup>c</sup>	2.1%
All vegetables	51,632		99,057		419,214	
Of which: Beans <sup>d</sup>	2,866 <sup>f</sup>	negl <sup>f</sup>	6,048	negl	105,211	1.0%
Peas	-	-	-	-	7,833	negl
Onions & garlic	25,437	6.8%	27,252	3.6%	11,421	negl
Potatoes	6,915 <sup>f</sup>	negl <sup>f</sup>	5,444	negl	49	negl
Other <sup>e</sup>	16,414	5.4%	60,313	9.4%	294,700	12.2%
<i>Sub-total, dutied</i>	<i>291,213</i>		<i>756,980</i>		<i>2,159,418</i>	
<b>Total</b>	<b>1,141,661</b>		<b>2,512,983</b>		<b>3,104,347</b>	

Notes:

“negl” = negligible, less than 1%

<sup>a</sup> Other fruit refers largely to avocados which were mostly imported duty free.

<sup>b</sup> Oranges, limes and lemons.

<sup>c</sup> Primarily avocados on which duty was charged.

<sup>d</sup> For 1903, includes dried beans & peas; for 1918-21, dried beans & lentils.

<sup>e</sup> Includes tomatoes, cucumbers, eggplant, peppers, & other fresh vegetables which are not reported separately until later years.

<sup>f</sup> Two-year averages since data for 1900 not available either for imports from Cuba or for total US imports for that category.

Source: Compiled from USDC, *Foreign Commerce and Navigation of the United States*, for General Imports, various issues.

Table 5. US Imports of Fresh Fruits and Vegetables and Tree Crops from Cuba by duty status, 1920s to WWII (current US\$) (Revised Jan 2016)

Product	1922-1925	1926-1929	1930-1933	1934-1937	1938-1941	1942-1946 <sup>e</sup>
<b>Free of duty</b>						
Coffee	20,698	9,356	238,308	206,997	469,205	695,027
Cacao	60,802	143,626	62,203	36,498	9,743	5,032
Coconuts <sup>a</sup>	21,345	10,313	7,626	5,112	6,038	31,303
Bananas/plantains	1,130,364	1,522,304	1,426,643	2,883,155	1,865,288	1,982,163
Other fruit <sup>b</sup>	94,611	100,206	151,081	2,942	24,437	6,522
Avocados	-	-	-	171,042	198,789	121,721
<i>Sub-total, free</i>	<i>1,327,820</i>	<i>1,785,805</i>	<i>1,885,861</i>	<i>3,305,746</i>	<i>2,573,500</i>	<i>2,841,768</i>
<b>Dutied</b>						
All other fruits	3,174,677	2,239,120	1,738,049	947,525	1,129,352	1,805,558
Of which:						
Pineapples	2,632,379	1,998,449	1,490,017	833,557	1,009,014	1,748,318
Grapefruit	506,000	220,835	179,226	108,761	116,846	54,371
Other citrus	14,966	1,229	588	5,207	3,492	2,869
Other <sup>c</sup>	21,332	18,607	68,218	-	-	-
All vegetables	753,849	1,574,638	943,041	1,234,593	1,366,829	1,214,334
Of which:						
Beans	12,845	6,090	36,748	124,974	121,380	66,635
Peas	25	3	540	403	1,033	5,405
Onions & garlic	18,795	1,156	279	386	1,366	0
Potatoes	10,109	135,917	63,064	32,087	33,739	1,533
Tomatoes	102,719	655,890	524,433	756,784	843,068	991,753
Other <sup>d</sup>	609,356	775,582	317,977	23,384	19,375	27,209
Cucumbers	-	-	-	47,094	60,341	45,075
Eggplant	-	-	-	111,806	120,855	32,236
Okra	-	-	-	54,104	69,187	24,191
Peppers	-	-	-	83,571	96,485	20,297
<i>Sub-total, dutied</i>	<i>3,928,526</i>	<i>3,813,758</i>	<i>2,681,090</i>	<i>2,182,118</i>	<i>2,496,181</i>	<i>3,019,892</i>
<b>Total</b>	<b>5,256,346</b>	<b>5,599,563</b>	<b>4,566,951</b>	<b>5,487,864</b>	<b>5,069,681</b>	<b>5,861,660</b>

Notes:

<sup>a</sup> There was a US duty on coconuts from 1922 to 1933; however, under the terms of the Reciprocity Convention, the majority of coconut imports from Cuba remained duty free.

<sup>b</sup> Other duty free fruit are largely avocados; these are not listed separately until 1934. Watermelons are listed separately from 1927 on, but have been kept in this category of other duty free fruit given its small volume.

<sup>c</sup> Largely coconut and avocado imports on which duty was paid. After 1934 both products were moved to the US free list for all.

<sup>d</sup> All other vegetables; beginning in 1934 most of these are listed separately as shown. Tapioca (which was duty free) and cabbage which from 1937 is listed separately, have been retained in this category of other dutied vegetables, given the small quantities which were imported from Cuba.

<sup>e</sup> This is a five-year average; 1946 was included since the official publication of US imports changes format in 1947.

Source: Compiled from USDC, *Foreign Commerce and Navigation of the United States*, for General Imports, multiple issues.

Table 6: Cuban Share of US Imports of Fresh Fruits and Vegetables, and Tree Crops, 1920s to WWII

Product	1922-1925	1926-1929	1930-1933	1934-1937	1938-1941	1942-1946
<b>Free of duty</b>						
Coffee	Negl	Negl	negl	negl	negl	negl
Cacao	Negl	Negl	negl	negl	negl	negl
Bananas/plantains	5.0%	4.4%	5.2%	10.2%	6.4%	8.0%
Coconuts <sup>a</sup>	7.7%	100%	94.2%	negl	1.5%	1.4%
Other fruit <sup>b</sup>	37.8%	97.8%	43.2%	11.9%	91.4%	24.9%
Avocados	-	-	-	99.9%	99.9%	99.9%
<b>Dutied</b>						
All other fruits						
Pineapples	96.9%	98.5%	99.5%	89.8%	90.7%	62.4%
Grapefruit	99.2%	97.0%	99.7%	99.3%	97.4%	99.9%
Other citrus	Negl	Negl	negl	negl	2.6%	1.1%
Other	Negl	Negl	3.7%	-	-	-
All vegetables						
Beans	Negl	Negl	1.9%	11.8%	29.9%	15.5%
Peas	negl	Negl	negl	negl	negl	1.1%
Onions & garlic	negl	Negl	negl	negl	negl	-
Potatoes	negl	2.6%	2.6%	5.7%	15.5%	negl
Tomatoes	6.2%	17.6%	16.4%	39.8%	42.8%	9.2%
Other	21.8%	23.3%	20.5%	negl	negl	negl
Cucumber	-	-	-	98.3%	98.0%	79.8%
Eggplant	-	-	-	94.1%	92.3%	53.4%
Okra	-	-	-	99.5%	99.9%	99.9%
Peppers	-	-	-	43.0%	39.4%	2.3%

Notes:

“negl” = less than 1%

<sup>a</sup> From 1926 to 1930, only coconuts from Cuba were on the free list, with imports from other countries subject to a duty. Nonetheless, imports from Cuba represented less than 1% of total US imports of coconuts. In 1934, coconuts go on the US free list to all.

<sup>b</sup> Largely avocados for which Cuba had an almost exclusive duty free quota in certain periods; avocados are not listed separately until 1934.

Source: See Table 5.

Table 7: Share of US Imports of Cuban Fresh Fruits and Vegetables which Imported under the Preferential 1934 Treaty Rates, selected years<sup>a</sup>

	Pineapples	Grapefruit	Lima beans	Tomatoes	Cucumber	Eggplant	Okra	Peppers
1934 <sup>b</sup>	8.1%	0	32.6%	28.5%	30.4%	6.7%	81.2%	0
1937	100%	98.9%	89.9%	81.1%	85.7%	90.5%	88.1%	92.5%
1941	100%	72.4%	84.7%	52.0%	78.0%	88.2%	82.5%	90.7%
1946	100%	99.9%	98.4%	0 <sup>c</sup>	99.7%	98.9%	99.4%	0 <sup>c</sup>

<sup>a</sup> See tables 1 and 2 for the preferential rates and the months during which these applied.

<sup>b</sup> The 1934 Reciprocity Treaty was not signed until September.

<sup>c</sup> Imports of these crops during 1946 were reported as having taken place under the “Agreement rate less 20%” rather than under the “Cuba Treaty rate”, referring to the 1934 treaty, or the 1902 Reciprocity Convention rate which is usually reported as “Cuba (less 20%)”. In the case of tomatoes, this same designation applied to most tomato imports during 1943 and all those during 1945. Since in 1943 the same designation of “Agreement rate” of 1.5 cents a pounds was applied to tomato imports from Canada, Mexico and the Bahamas, this might have been a special wartime provision.

Source: Compiled from USDC, *Foreign Commerce and Navigation of the United States*, for “Imports for Consumption or General Imports”, Table 1, various issues, 1934 to 1946.

Table 8. US Imports of Fresh Fruits and Vegetables and Tree Crops from Cuba by Duty Status, Post-WWII to 1962 (current US\$)

Product	1947-50	1951-54	1955-58	1959-62
<b>Free of duty</b>				
Coffee	18,902	0	7,307,057	426,119
Cacao	469,055	636,563	605,374	228,158
Coconuts	7,660	18,782	14,785	12,318
Bananas/plantains	1,927,173	180,854	612,620	421,160
Avocados	344,693	432,172	290,076	188,581
<i>Sub-total, free</i>	<i>2,767,483</i>	<i>1,268,371</i>	<i>8,829,911</i>	<i>1,276,336</i>
<b>Dutied</b>				
All other fruits	1,933,185	1,680,657	2,187,716	1,122,067
<u>Of which:</u>				
Pineapples	1,759,972	1,458,551	1,925,280	857,045
Grapefruit	151,914	154,251	79,473	51,814
Other citrus	89	3,654	112,055	133,324
Melons <sup>a</sup>	15,616	54,546	22,610	9,028
Other fresh <sup>b</sup>	5,594	9,657	48,298	70,856
All vegetables	2,083,169	2,045,188	2,338,112	1,973,602
<u>Of which:</u>				
Beans <sup>c</sup>	158,423	2,796	2,043	4,581
Peas <sup>d</sup>	55,188	102,707	46,017	94
Potatoes	6,787	26,229	64,604	0
Tomatoes	1,384,074	877,153	879,965	852,955
Cucumbers	264,845	662,255	777,153	541,130
Eggplant	82,081	86,008	60,598	50,491
Okra	64,283	176,322	234,848	118,468
Peppers	37,083	42,088	29,287	28,862
Other fresh <sup>e</sup>	30,405	69,631	243,598	377,021
<i>Sub-total, dutied</i>	<i>4,016,353</i>	<i>3,725,844</i>	<i>4,525,828</i>	<i>3,095,668</i>
<b>Total</b>	<b>6,783,836</b>	<b>4,994,215</b>	<b>13,355,739</b>	<b>4,372,004</b>

Notes:

<sup>a</sup> Includes watermelon (the dominant category), cantaloupe and other melons.

<sup>b</sup> Principally mangoes which began to be exported to the US in significant quantities in 1954, but also guava, tamarinds, berries, cherries, grapes, cashew apples, olives and “other fruit (nes natural)”.

<sup>c</sup> Mainly green or ripe lima beans, but also includes dried red kidney beans in some years.

<sup>d</sup> Mainly cowpeas, but also includes chickpeas and green peas in some years.

<sup>e</sup> Includes some 12 vegetables each of whose value never exceeds \$23,000 in its peak year. The dominant category, particularly from 1955 on, is “other vegetables (fresh nes)”.

Source: Compiled from USDC, *United States Imports for Consumption of Merchandise. Commodities by Country of Origin*. Report No. FT 110. Washington, DC: Bureau of the Census, various years.

Table 9: Cuban Share of US Imports of Fruits, Vegetables and Tree Crops, Post-WWII to 1962

Product	1947-50	1951-54	1955-58	1959-62
<b>Free of duty</b>				
Coffee	negl.	0	0.5%	0.1%
Cacao	0.4%	0.4%	0.4%	0.3%
Coconuts	1.1%	3.7%	2.6%	2.9%
Bananas/plantains	3.7%	0.3%	0.9%	0.7%
Avocados	100%	99.6%	100%	98.6%
<b>Dutied</b>				
All other fruits				
Pineapples	62.1%	77.5%	83.9%	72.7%
Grapefruit	97.7%	93.9%	96.5%	78.2%
Other citrus	negl.	0.5%	28.8%	12.1%
Melons	5.3%	8.6%	1.0%	0.3%
Other fresh	14.1%	5.7%	8.1%	31.2%
All vegetables				
Beans	11.4%	0.6%	0.2%	1.6%
Peas	10.3%	8.6%	7.2%	0.1%
Potatoes	1.1%	1.0%	3.4%	0
Tomatoes	8.0%	6.4%	8.7%	6.0%
Cucumber	94.9%	90.3%	75.7%	37.2%
Eggplant	81.2%	85.8%	53.7%	24.8%
Okra	98.7%	99.5%	99.5%	77.8%
Peppers	2.7%	2.8%	3.1%	2.0%
Other fresh	0.5%	1.1%	3.0%	4.3%

Source: See Table 8.

Table 10. US Imports of Fresh vs. Processed Fruits, Nuts and Vegetables from Cuba, post-WWII to 1962 (current US\$)

Product	1947-50	% US Imports	1951-54	% US Imports	1955-58	% US Imports	1959-62	% US Imports
Fresh Fruits	4,205,050	7.5%	2,293,683	3.5%	3,090,411	4.1%	1,731,808	2.7%
Processed Fruits	5,426,397	29.6%	2,165,145	8.9%	3,933,182	26.0%	2,331,832	16.1%
Fresh Nuts <sup>b</sup>	7,663	0.2%	18,782	3.7%	14,878	2.6%	12,318	2.9%
Processed Nuts	116,834	0.5%	2,445	negl.	2,825	negl.	1,802	negl.
Fresh Vegetables	2,083,169	7.4%	2,045,188	7.5%	2,338,112	9.7%	1,973,602	7.4%
Processed Vegetables	73,637	1.7%	75,386	2.5%	124,855	1.8%	75,414	0.9%
s-t Fresh <sup>a</sup>	6,295,881	7.1%	4,357,652	4.7%	5,443,400	5.4%	3,717,727	4.0%
s-t Processed	5,616,868	12.8%	2,242,976	5.0%	4,060,862	11.5%	2,409,048	7.5%
Total	11,912,750	9.0%	6,600,628	5.0%	9,504,263	7.0%	6,126,775	4.9%

Notes:

<sup>a</sup> This sub-total differs from the total for Table 8 since it excludes coffee and cacao.

<sup>b</sup> Principally coconuts.

Source: See Table 8.

Table 11: Agricultural and Agro-industrial Imports as a Share of Total Imports from Cuba, 1947-1963 (current US\$)

Year/ Category	Vegetables & preparations	Fruits, nuts & preparations	Cocoa, coffee & tea	Sugar & products	Tobacco & manuf.	All other agricultural & agro-industrial <sup>a</sup>	<b>Sub-Total:</b> agricultural & agro-industrial <sup>b</sup>	Non-agricultural & agro-industrial	Total imports from Cuba
1947	1,968,065	12,538,252	1,011,224	423,901,600	36,899,194	4,822,535	481,140,870	32,638,012	513,778,882
	0.4	2.4	0.2	82.5	7.2	0.9	(93.6)	6.4	100%
1948	2,087,392	12,995,047	457,339	311,712,436	25,354,249	3,817,889	356,424,352	18,364,692	374,789,044
	0.6	3.5	0.1	83.2	6.8	1.0	(95.1)	4.9	100%
1949	2,478,969	7,983,780	82	329,659,135	26,027,044	4,061,372	370,210,382	16,428,059	386,638,441
	0.6	2.1	-	85.3	6.7	1.1	(95.8)	4.2	100%
1950	2,092,797	5,506,696	539,664	340,049,970	26,507,368	4,974,817	379,671,312	23,694,618	403,365,931
	0.5	1.4	0.1	84.3	6.6	1.2	(94.1)	5.9	100%
1951	2,675,342	4,550,293	2,895	342,539,053	28,130,398	6,884,072	384,782,053	31,644,431	416,426,484
	0.6	1.1	-	82.3	6.8	1.7	(92.4)	7.6	100%
1952	1,971,630	4,035,759	452,115	351,097,924	28,790,224	8,550,168	394,897,820	38,165,141	433,062,961
	0.5	0.9	0.1	81.1	6.6	2.0	(91.2)	8.8	100%
1953	2,105,258	4,575,797	493,878	337,502,446	30,082,625	8,676,877	383,436,881	50,277,829	433,714,710
	0.5	1.1	0.1	77.8	6.9	2.0	(88.4)	11.6	100%
1954	1,730,063	4,758,367	1,789,940	312,262,073	28,813,135	7,854,537	357,208,115	42,548,886	399,757,001
	0.4	1.2	0.4	78.1	7.2	2.0	(89.4)	10.6	100%
1955	1,766,303	5,814,624	4,267,335	320,851,643	27,639,289	7,956,656	368,295,850	48,338,493	416,634,343
	0.4	1.4	1.0	77.0	6.6	1.9	(88.4)	11.6	100%
1956	2,726,256	6,995,279	11,978,145	346,039,692	28,890,477	9,904,847	406,534,696	51,342,842	457,877,538
	0.6	1.5	2.6	75.6	6.3	2.2	(88.8)	11.2	100%
1957	2,402,858	7,916,527	9,340,733	356,143,041	29,543,829	9,215,117	414,562,105	63,186,714	477,748,819
	0.5	1.7	2.0	74.5	6.2	1.9	(86.8)	13.2	100%
1958	2,956,452	7,438,749	6,239,880	407,126,911	29,174,887	7,890,810	460,827,689	56,728,193	517,555,882
	0.6	1.4	1.2	78.7	5.6	1.5	(89.0)	11.0	100%
1959	2,208,779	7,631,834	2,240,820	364,206,267	31,971,944	8,219,938	416,479,582	50,739,538	467,219,120
	0.5	1.6	0.5	78.0	6.8	1.8	(89.1)	10.9	100%
1960	5,124,94	6,849,96	404,08	257,781,	31,023,	5,682,9	306,866,	35,605,	342,471,

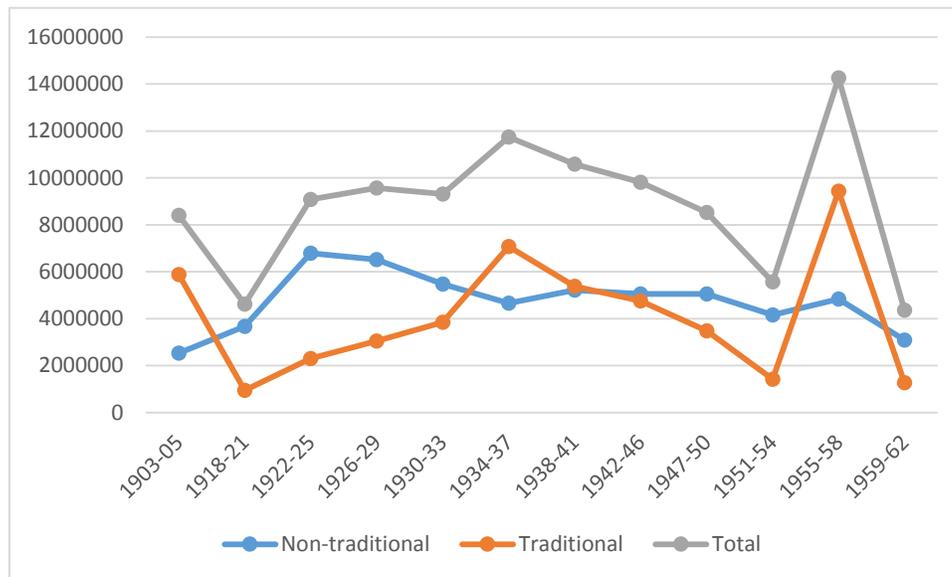
	4	6	2	385	280	62	619	187	806
	1.5	2.0	0.1	75.3	9.1	1.7	(89.6)	10.4	100%
1961	861,835	1,811,991	9,654	1,729,465	26,765,155	1,941,453	33,119,553	1,783,336	34,902,889
	2.5	5.2	-	5.0	76.7	5.6	(94.9)	5.1	100%
1962	504	17,245	-	496	15,418,442	104,799	15,541,485	143,256	15,684,741
		0.1			98.3	0.7	(99.1)	0.9	100%
1963	-	-	-	-	6,577,969	1,989	6,579,958	50,270	6,630,228
					99.2	-	(99.2)	0.8	100%

Note: <sup>a</sup> All other agricultural includes SITC Commodity Groups 1 to 7 (meat, dairy & seafood), 8 to 13 (hides, leather, fur, animal/fish oils), 14 to 15 (grains, fodder), 19 (vegetable oils), 21 (spices), 23 (beverages), 24 to 31 (rubber, gum, herbs, oil seeds, nursery products), and 33 (miscellaneous).

<sup>b</sup> Percentages may not add due to rounding.

Source: Compiled from USDC. *United States Imports of Merchandise for Consumption. Country of Origin by SITC Commodity Group.* Report No. FT 120. Washington, D.C.: Bureau of the Census, various years.

Graph 1: Value of US Imports of Fresh Fruits & Vegetables and Tree Crops from Cuba, 1903 to 1962 (in constant 1960 US\$) (Revised Jan. 2016)



Notes: Based on four-year averages. Traditional imports are those which traditionally entered the US duty-free; non-traditional are those which pay duty and subject to preferential tariffs

Source: Based on tables 4, 5, and 8, and US Department of Labor, Bureau of Labor Statistics, historical CPI-U series, [www.bls.gov/data/inflation\\_calculator.htm](http://www.bls.gov/data/inflation_calculator.htm).

