THE CUBA COMPANY AND EASTERN CUBA'S ECONOMIC DEVELOPMENT, 1900-1959

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ABSTRACT

This article evaluates the Cuba Company's impact on eastern Cuban economic development. It argues that the Cuba Company's railroads, together with its development plans and strategies, helped stimulate the extraordinary economic growth of eastern Cuba between 1900 and 1959, especially in the production of sugar. Sugar was king in Cuba before 1900 but only in western Cuba; eastern Cuba produced only a minuscule fraction of total Cuban sugar production. Moreover, the Cuban Independence War of 1895-1898 had destroyed the industry. Due to the Cuba Company's strategy, however, by the 1920s Cuba was once again the largest producer of sugar in the world and eastern Cuba represented over 50% of total Cuban sugar production.

Throughout its sixty year history the Cuba Company and its subsidiary companies stimulated massive economic growth in eastern Cuba. It was most profound between 1900 and 1932 when the Cuba Company built and consolidated the railroad system in eastern Cuba and actively promoted and partially financed investment in sugar production in the area. The short term benefits from the railroads to the Cuban economy were extraordinary. The dramatically reduced transportation and delivery costs afforded by the railroad stimulated an expansion of sugar production that initiated a period of rapid and massive economic growth from 1914 to 1929.[1] Fifty-six new mills with a capacity of over 4,000,000 tons of raw sugar production were built along the Cuba Company's railroad lines, more than doubling Cuba's sugar production capacity. The railroad brought order and a sense of modernity to eastern Cuba which appealed to both foreign and native investors. The railroad reduced the initial investment in sugar mills by providing reliable and economical transportation of the materials imported from the US used to build the mills. The railroads also assured the new high capacity mills' access to cane based on an extensive system of cultivation. Thus, the sugar mills built after 1900 were built exclusively in eastern Cuba and they were massive industrial enterprises that produced sugar in massive quantities. That is, a mill could economically purchase cane from lands a hundred kilometers away and economically transport it to the mill. Thus, the older, western Cuban system of a *central* (a small mill surrounded by its cane land) was no longer profitable. The mass production technologies of the new mills resulted in an average product per mill increase from 1877 to 1929 of about 9800 percent--a 190 percent average annual increase in the size of the plant.[2]

The long term effect, however, was more complicated. While the Cuba Company's railroad and development strategies created dramatic economic growth in eastern Cuba they also changed how sugar was produced: from production by small, domestically-owned mills to large, foreign-owned industrial corporations. That transition came to have extraordinary implications for the Cuban economy. As a result of economies of scale, the small, domestically-owned mills quickly became unprofitable and large foreign-owned mills came to dominate sugar production. However, that transition also precluded further investment and diversification of the economy since the industrial mills were foreign-owned and the profits were transferred to the US.[3] As a result, export-led growth based on high capacity sugar production ultimately doomed the Cuban economy to the cyclical boom/bust cycles inherent in export-led primary product production and a lack of diversified development.[4]

The Cuban Independence War and Cuba Before 1900

In 1900 Cuba contained approximately 1300 kilometers of railroad, concentrated almost exclusively in the western provinces of Matanzas, Havana, and Pinar del Rio. The vast majority of the western Cuban railroads were British-owned and later consolidated under the United Railways of Cuba. The railroads extended east only to Santa Clara, servicing only the western one-third of Cuba. As a result, the western provinces were substantially settled and developed. Havana and the western provinces were Cuba's center of economy, society, politics, and culture. Finally, the western provinces suffered much less damage from the Cuban Independence War since most of the fighting took place in the eastern provinces.

In contrast, eastern Cuba contained very little development. The provinces east of Santa Clara contained more than 66% of the land yet less than 100 kilometers of railroad to service the entire area. The railroads that existed were mainly in the form of short government lines extending from the interior to the ports. In addition, travel between Havana, on the western part of the island, and Santiago, on the eastern tip of Cuba, took approximately one week via steamer service.[5] Most contemporary observers believed that without a central railroad the eastern Cuban interior would remain an untapped wilderness. As a result, most of eastern Cuba remained totally inaccessible to modern, large scale investment and development.

Additionally, all of eastern Cuba accounted for only 22% of the national product even though it contained 66% of the land.[6] Moreover, the existing pockets of investment that existed were concentrated in areas more easily accessible, such as provincial capitals and larger cities. For example, Camaguey, a provincial capital, was one of the more important cities in the east largely because it had a railroad running from the city to the port of Nuevitas on the northern coast of Cuba.[7] However, even that investment Camaguey was not extraordinary in size: it was concentrated in *trapiches* (small early nineteenth century sugar mills) and the economy was centered on cattle grazing.[8] Moreover, *campesinos* (peasants) scratched out their subsistence living from small farms.[9] Large scale, modern investment was largely non-existent.

The economy and population also was ravaged by the Cuban Independence War.[10] The land was charred and towns destroyed: "Over 100,000 small farms, 3,000 livestock ranches, 800 tobacco *vegas* (farms), and 700 coffee *fncas* (farms) were destroyed during the conflict."[11] From the original 1,100 sugar mills in Cuba before 1895, only 207 survived the war.[12] In addition, during the three years of war, at least 100,000 Cubans died, more than 10% of the population. Of those that died the majority were Cubans in the eastern provinces. By the end of the war the national economy and society were shattered, most notably in the eastern provinces. Eastern Cuba, therefore, was ripe for investment and development in 1900, but only if a central railroad existed to open the area to investment and supply cheap and efficient transportation and communication.

The Cuba Company Railroad

When it opened in 1902, the Cuba Company's line became the first central Cuban railroad traversing Cuba from the city of Santa Clara in the west (the terminus of the United Railways of Havana) to Santiago in the east and originally stretched nearly 600 kilometers.[13] For the first time in Cuban history anyone who could afford passage on the train could travel through the entire country. The railroad provided improved communication and reduced transportation costs. Most importantly, the railroad opened eastern Cuba to investment. Without a railroad development of large-scale sugar manufacturing in the interior would have been impossible.[14]

The Cuba Company railroad network in eastern Cuba continued to expand rapidly.[15] By 1910 the Cuba Company had built a total of nearly 1,700 kilometers of railroad. Expansion of the railroad network included branches to the coast and ports and branches into existing or potential sugar cane lands. As soon as an investor began building a mill in eastern Cuba, the Cuba Company extended a spur line to the mill and other spurs into the cane lands. It also supplied financing for the new lines in addition to supplying locomotives, personnel, and cargo cars. The aggressive strategy resulted in a huge increase of railway mileage for the Cuba Company and a tremendous increase in investment in sugar in eastern Cuba. The expansion of the company's lines resulted in an increase of total Cuban railway mileage to nearly 3,600 kilometers by 1915, a 277% increase from 1900. By 1920, total railway mileage in Cuba exceeded 4,000 kilometers. Between 1920 and 1959 total public railway mileage stabilized at a saturated level of approximately 4,500 kilometers, of which the Cuba Company owned nearly 50%.[16]

Promoting Investment in Sugar

The Cuba Company's strategy was to build the central Cuban railroad in eastern Cuba in order to provide investors a vital transportation and communication infrastructure and then profit from the subsequent economic growth. As Percival Farquhar stated in September 1900, the Cuba Company "was a development enterprise" whose purpose was, "To do any or all things which may be lawful and deemed by the corporation useful to promote the general development of the Island of Cuba."[17] The Cuba Company successfully promoted investment in sugar production by building two sugar mills as examples of the profitability of modern sugar production, financed rail service to mills and cane lands, and used an "Industrial Agent" to promote both large scale investment in sugar mills and small scale investment by middle class Americans and Cubans in cane lands.[18] Combined with the Reciprocity Treaty of 1903 which reduced tariffs on Cuban agricultural exports to the U.S., the strategy was extremely successful. In 1900, eastern Cuba comprised more than 66% of the country's land but contained only 35% of the population and only 17% of total Cuban sugar production. It was virgin territory ready for development. As a result of the Cuba Company's railroads and development strategies, by the 1920s eastern Cuba contained 70% of Cuba's sugar mills producing over 50% of total Cuban sugar production.[19] A contemporary, Basil Woon, described eastern Cuba from the vantage point of the railroad:

> From Camaguey eastward the road runs through monotonous miles of sugar cane. Hour after hour the vista hardly changes. Here and there little towns with wide streets bordered by wooden shanties, recalling the 'wild West' sets of movies...The train passes many settlements of Haitian cutters, black as coal and almost as naked as Adam and Eve--certainly their habits of living must approximate those of our first parents. If you ever feel tempted to think the Garden of Eden a fine place, take a look at these Adams and these Eves.[20]

Through its development strategy, by the late 1910s, the Cuba Company helped transform eastern Cuba into the center of Cuban sugar production.

The Cuba Company, under Van Horne and Farquhar's leadership, wanted to promote a diversified economy, smaller landholdings, and the destruction of large plantations as a vehicle for economic growth and therefore profit for his company. He believed that historic patterns of concentrating land ownership precluded diversification and development.[21] As a result, Van Horne argued that the historic system of *latifundia* (large, often unutilized plantations) was detrimental both to Cuba and, more importantly, his company, since they tied up thousands of acres of land as unused and unproductive holdings. He constantly argued the Cuba Company's need to promote production and efficiency in order to increase diversified freight and passenger traffic. Van Horne insisted on land taxation to reduce the holding of large parcels of unproductive land, promoted cultivation of citrus, banana, and crops other than sugar, and promoted U.S. and Spanish immigration to form small scale farming operations.[22]

However Van Horne quickly realized that in the short term, the new *latifundia* and high capacity mills were the bulk of investment, and that Cubans had little to invest in small farms. He also realized that promoting small scale individual investment and farming was a long term project. Large producers were the only available short term investors. For the short term, Van Horne largely abandoned his insistence on small landowners and diversification. Forsaking small landowners and diversification in the short term, as it turned out, precluded them in the long term as the eastern Cuban sugar industry exploded uncontrolled between 1914 and 1925 and was later consolidated by New York banks. In a letter to Horatio Rubens in 1900 he wrote,

> Practically all of the new money which has gone into Cuba since the war has been corporate money, and this is likely to be the case for a good while to come. It will be a long time before outsiders know enough about Cuba to justify them in taking great individual risks...To frighten away corporate investments would result in a pretty complete state of paralysis in Cuba for many years to come. It should not be forgotten that nearly every venture in Cuba requires an uncommonly large amount of capital--no man of limited means can go into a sugar estate for instance except as a shareholder in a company--and any show of disfavor to corporations must confine the development of these large industries to residents of Cuba having sufficient wealth to carry them out, and these are not now by any means numerous and nearly all of them, I imagine, find it difficult to take care of what they already have in hand.[23]

Van Horne envisioned a diversified agricultural economy in eastern Cuba, but he realized that initially sugar investment would predominate. The strategy for developing railroad traffic, therefore, was to promote investment in the sugar industry.

The Cuba Company built its first sugar mill, Jatibonico, in 1905 and the second, Jobabo, in 1909. Both mills contained the most advanced engineering innovations and the latest sugar production machinery and techniques. They were serviced by direct railroad lines to the mill and to the cane lands providing cheap and efficient transportation. They were built as a symbol of the efficiency, productivity, and profitability of new, large industrial sugar production. The mills together had a total annual sugar production capacity of 1,000,000 bags of sugar, or about 164,000 tons. They were two of the largest and most profitable sugar mills built in Cuba.[24]

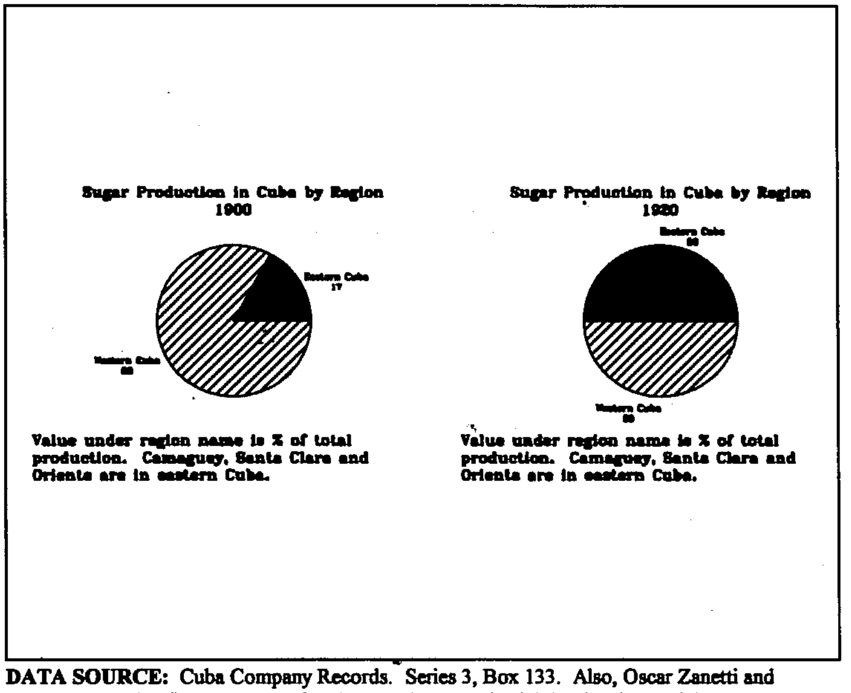
The Cuba Company's Industrial agent, William Craib, constantly promoted them to demonstrate and promote the agricultural capacity of eastern Cuban sugar production. The Industrial Agent produced and distributed research papers based on the knowledge gained from production. Craib also founded the East Cuba Commercial Association as a type of eastern Cuban chamber of commerce to promote investment and gave tours to potential investors, tourists, and Cuban and American government officials. The financial success of the mills was widely disseminated. The Cuba Company believed that "by promoting by example" it could promote the sugar industry and therefore raise railroad freight and passenger traffic increase revenues and profits. The Cuba Company's efforts were successful from 1902-1910, resulting in sixteen new mills.[25] The number of new mills was not great but their output capacity was more than most sugar mills in Cuba.

The following two decades, however, the 1910s and 1920s, featured the apex and plateau of the expansion of the sugar industry in eastern Cuba. Between 1911 and

1920 thirty-three new mills were constructed equaling or surpassing the capacity of each of the Cuba Company mills. By 1923, sugar cane transported to the mills totaled 4,001,616 tons, up from 1,651,758 in 1916.[26] The Cuba Company regularly handled more than 150,000 cane cars per year delivering 35 to 90 cane cars per day to the sugar mills.[27] By 1930 the total number of new mills in eastern Cuba was 60 with an output capacity of over 4,000,000 tons of sugar. Most of the increased expansion of the sugar industry was a direct result of the expansion of the sugar industry in eastern Cuba (See graph on the following page.). As a result, the Cuba Company's railroads enjoyed large, rising revenues and profits.

The Cuba Company often financed railroad services to the new mills as an added incentive for investment. Manuel Rionda's Cuba Cane Sugar Company mills were one of the earliest examples of mill railroad financing by the Cuba Company.[28] The new mills were constructed adjacent to the Cuba Company's existing railroad lines, facilitating construction and transportation. The company built short, temporary spur lines to the new mills in order to provide transportation of equipment. After completion, the company financed the construction of additional lines to the cane lands. The mill paid back the construction costs of all the railroad lines slowly as it began to grind and sell its sugar production. The company provided cane cars to haul cane and box cars to transport the sugar to the Cuba Company port in Antilla. In addition, the company provided locomotives and personnel to run the trains for the mills. By financing the sugar mill lines, the company assured its primacy in all aspects of transportation of cane to the mills and sugar to the ports.[29]

Sugar Production in Cuba by Region, 1900 and 1920



DATA SOURCE: Cuba Company Records. Series 3, Box 133. Also, Oscar Zanetti and Alejandro Garcia, *Caminos para el Azúcar* (Habana: Editorial de Ciencias Sociales, 1987).

Financing the mills' railroad lines contributed to the mills' rapid transition from the construction phase to production. After completion of construction, the mill could immediately begin grinding sugar because the railroad made other areas of cane land, not adjacent to the mills, immediately available to the mill. Its production was not limited to its access to cane in its immediate area, which had been the case prior to railroad construction. For example, the sugar mill "Stewart," one of the largest in Cuba regularly producing 80,000 to 100,000 tons of sugar per harvest, was located adjacent to the Cuba Railroad Company line near the Ciego de Avila station in central Cuba. The area immediately around it could not produce sufficient sugar cane to supply the mill's needs. However, the "Stewart," adjacent to the central railroad line, was able to purchase cane from farmers miles away in order to meet its grinding capacity. The railroad was also able to transfer the sugar produced to the port of Antilla or Morón for shipment to the U.S. Even more demonstrative, the mill Manati, the largest in Cuba with production between 115,000 and 145,000 tons, was located in an area with no other sugar mills nearby, to the north of the town Victoria de las Tunas. It's mill was supplied by cane land around the mill, but also from cane land miles away, transported to the mill by the railroad. Manati, moreover, was connected to the Cuba Railroad's main line by a Cuba Railroad spur that ran north from Victoria de las Tunas. The mill produced enough business, both in terms of cane transported to the mill and sugar transported out, that it was profitable for the Cuba Company to maintain a line to the mill. The railroad made their enormous output capacity possible by making more cane available. Without the railroad, the large industrial mills would not have been possible. It was an integrated system.[30]

After 1914, however, the sugar mills obtained complete financing for their operations from the Chase Bank of New York, the National City Bank of New York, or the Royal Bank of Canada. There were several reasons for this change. First, the Cuba Company could not afford to finance the vigorous expansion of the sugar industry along its lines that occurred between 1914-1930. It could previously finance one or two mills at a time, but not 50. Moreover, the Cuba Company felt that financing railroad lines was no longer needed. That is, financing railroad line construction to the mills was originally designed to lure investors and facilitate mill construction. After 1914, however, investors were establishing mills all over eastern Cuba and the Cuba Company therefore felt it no longer needed to provide financing to establish mills. Finally, after the collapse of the sugar market in 1921, the three major banks mentioned above controlled most of the new mills being built or already completed.[31] Since the banks owned the mills after foreclosure, the banks internally financed all their operations.

Although the Cuba Company's development strategies and railroad lured tourism, investment, and development of eastern Cuba through its comprehensive program, the most powerful incentive to investment in eastern Cuban sugar and construction of new sugar mills was the combined effect of the Reciprocity Treaty of 1903 and the world war of 1914 which created rapidly rising world sugar prices and declining world production and exports of sugar. The Reciprocity Treaty of 1903 gave Cuban exports to the United States lower tariffs on agricultural products which when combined with rising sugar prices after 1914 made sugar an extremely profitable investment. The tariff reduced sugar duty in the U.S. to $0.01685 per pound between 1903 and 1904. After the reduction failed to bring Cuba any noticeable results, the duty was lowered again in 1904 to $0.01348. By 1914 the duty was down to $0.01005 per pound. At that same time, war destroyed much of the European beet sugar production and prices climbed steadily, making sugar production very profitable.

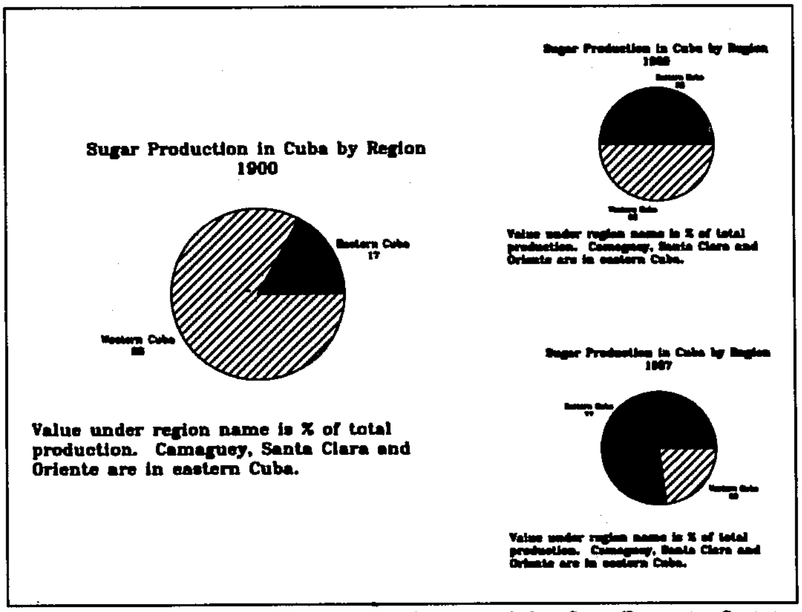
The preferred status of American exports to Cuba combined with a lack of capital in Cuba to prevent industrialization or the development of diversified economy in the 1900s and early 1910s. Local, domestic investors had little incentive to produce manufactured goods which had to compete with the prices and quality of American products. This form of comparative advantage, or rather comparative disadvantage, precluded agricultural diversification. The wealthy Rionda family, of the Czarnikow-Rionda beet sugar trading company in New York, plowed profits into sugar production, creating the Cuba Cane Sugar Company. The Riondas, like so many other wealthy Cubans, moved directly from trading beet sugar to producing Cuban cane sugar. Many other investors, both foreign and domestic, such as the Vertientes Sugar Company, began investing heavily in eastern Cuban sugar.

Eastern Cuba's Economic Development

The massive expansion of the Cuban sugar industry was a direct result of the construction of the Cuba Company's central Cuban railroad. The central railroad provided an artery for tourism, investment, distribution, and transportation in eastern Cuba. Its effect was the expansion of the eastern Cuban sugar industry and the transfer of both the center of sugar production from western to eastern Cuba and from Cuban to American control. U.S. direct investment in Cuba increased from $204 million in 1914 to $1.360 billion by 1924, mainly investment directly into the sugar industry in eastern Cuba. The result was a concentration of land-ownership and wealth and a dependence on the sugar industry which precluded large scale diversification and industrialization.

Cuba's sugar production and production capacity increased dramatically between 1900 and 1959. In 1900 Cuba produced a total of approximately 700,000 tons but by 1930 production reached nearly six million tons, or almost 25% of the world's total sugar production. By the 1960s, Cuba was striving for a ten million ton output, well within the capacity created by the development of eastern Cuba's mills between 1902 and 1930.

Sugar Production in Cuba by Region, 1900, 1920, and 1937



DATA SOURCE: United States Cane Sugar Refiners' Association, *Sugar Economics, Statistics, and Documents* (New York: United States Cane Sugar Refiners' Association, 1938), Gerardo Canet, *Atlas de Cuba* (Cambridge: Harvard University Press, 1949, and Oscar Zanetti and Alejandro Garcia, *Caminos para el Azúcar* (Habana: Editorial de Ciencias Sociales, 1987).

The vast majority of the expanded Cuban sugar production was created by US investors in eastern Cuba. As the graph above illustrates, the vastly increased eastern Cuban production totally transferred to eastern Cuba the largest percentage of sugar produced. However, the transition also led to the transfer of ownership of eastern Cuba from Cuban to American hands: by 1910 75% of total Cuban lands were owned by Americans or Spaniards resident in Cuba. Only 25% of Cuban lands were owned by Cubans themselves.[32] In addition, the financial collapse of the sugar industry in 1920 served only to strengthen Cuba's dependence on the sugar industry. Most of the eastern Cuban sugar mills built or renovated after 1910 were constructed with financing from foreign banks, mainly from the Chase National Bank of New York, the First National City Bank of New York, and the Royal Bank of Canada. The banks provided almost all of the financing at high interest rates with no collateral except the mills themselves and the sugar output. The interests rates and the loans themselves were dependent on the ever-rising sugar prices.

The depression of 1930, followed by the Reciprocity Treaty of 1934 served to reinforce the primacy of the sugar industry over diversification of the agricultural economy and the import substitution industries. U.S. duty on sugar was lowered to levels never before seen by the Cuban sugar industry while U.S. exports to Cuba again received preferential status and lower duties. The banks and the Cuba Company argued strongly for the reduced duties to encourage the revival of the sugar industry on which they depended. While much of Latin America initiated import substitution industrialization efforts to diversify and industrialize their economies, Cuba instead reinforced its dependence on the sugar industry for economic growth. The reciprocity treaty resulted not only in a total lack of Cuban investment in import substitution industrialization but in a slow erosion of existing diversification and small scale manufacturing.

One possible explanation for Cuba's reluctance to invest in the diversification of the economy was the gradual increase in Cuban ownership of the sugar industry. By 1935, Cubans controlled 50 mills producing 13% of Cuba's sugar production. By that same year, Americans owned 70 of the largest mills in Cuba, mainly those in eastern Cuba, producing 70% of Cuba's sugar production. In that same year, Spaniards controlled 37 mills producing 16% of Cuban sugar production.[33] As a result of the depression and later the world war, however, Cubans began to completely displace the Spanish from ownership of the older mills. Cubans also began to displace some Americans from ownership. By 1952, Cubans owned 113 sugar mills, up from 56 in 1939, producing 55% of total Cuban sugar production. By 1952 the Spanish were reduced to ownership of only 6 mills, down from 15 in 1939, producing only 2% of Cuba's total sugar production. By 1952 Americans also lost some ownership, retaining 41 mills, down from 66 in 1939, but still producing 43% of Cuba's total sugar production. The American mills lost to Cuban control were mainly the less efficient mills.

The older Spanish mills needed to be renovated, which required massive amounts of capital, and sugar production in those older mills, located in areas less accessible by railroads and trucks, were less efficient to operate. As a result, Cubans were increasing ownership of production and mills, but their ownership was of the older, less efficient, more capital intensive former Spanish mills. Their ownership was not of the newer, industrial, more efficient mills of the American owners, those built between 1914 and 1929. Therefore, Cubans expended much more money in sugar production with their older mills than their U.S. counterparts in the newer, more efficient mills. For Cubans, sugar production was less efficient, more costly, and more capital intensive than for Americans.[34] They made strong profits from their sugar operations, but exported those profits to invest outside Cuba. As Francis Adams Truslow stated in 1951, Cubans made money from the sugar industry but were unwilling to invest it either in the sugar industry or other diversified industries:

> Cuban capital would appear to plentiful, but there is very little desire to invest it in domestic industrial activity at present. Whatever may be the moral issues involved, the plain fact is that the investment atmosphere has become so unpleasant that foreigners do not care to bring industrial capital in, and the Cubans themselves prefer to send theirs outside or to put it into real estate. There is a growing tendency to shy away from new enterprises which use much labor, while in the existing industries there is trouble with labor in introducing labor-saving capital machinery.[35]

The depression and resulting failure of the sugar industry also resulted in the Cuba Company's gradual demise. The Cuba Company's development strategies and railroads promoted and sustained Cuban economic growth based on the eastern Cuban sugar industry. But by the 1930s it fell victim to its own creation. The Cuba Company was completely dependent on dividends from its subsidiary railroad and sugar operations as its only source of income. The subsidiary railroad operations were in turn completely dependent on the sugar industry for revenues. The sugar subsidiary was dependent on world sugar prices. The Cuba Company's financial well being, therefore, completely depended on the eastern Cuban sugar industry. However, the depression caused the failure of the sugar industry which caused the failure of everything that depended on it. Consolidated Railroads stopped paying dividends on its stocks. Likewise, Compañía Cubana, the Cuba Company sugar subsidiary, operated at a loss and stopped paying dividends. The Cuba Company's only income was solely the dividends from its subsidiaries, and the lack of dividends led to the Cuba Company's financial reorganization in 1932. Without the subsidiaries' dividends the Cuba Company could not pay dividends on its own preferred or common stocks or on its debenture bonds. The Cuba Company remained under financial reorganization for the next sixteen years.

World war again revived the sugar industry in the 1940s. Between 1942 and 1952 the Cuban sugar industry regularly produced between four and eight million tons of sugar.[36] The rising sugar prices due to war resulted in an increase of the value of the Cuban sugar crop to between $200 million in 1943 to nearly $700 million in 1952, up from less than $90 million during the depression. Since Cubans owned 55% of Cuban's sugar production by 1955, rising revenues meant a larger share in wealth for them. Likewise, by the mid-1940s to 1950s Cuban customs collections were averaging 50-60 million dollars annually, up from 20 million dollars in the 1930s.[37] By the late 1940s and early 1950s, Cuban sugar was profitable and Cuban elites were prosperous, "Havana ranked among the world's most expensive cities--fourth after Caracas, Ankara, and Manila. In 1954, Havana had the largest number of Cadillacs per capita of any city in the world."[38] The revived and profitable post war sugar industry's main market and source of revenues was the U.S. The U.S. also overwhelmingly supplied most of Cuba's imports. Post war profits were abundant, but they were also exported as investments in American industry.

The depression and the following economic revival in the 1940s confirmed Cuba's dependence on the eastern Cuban sugar industry for economic growth. It also proved Cuba's resulting economic, social, and political integration and dependence on the United States for both economic growth and political stability. The two were intimately tied. Cuba continued to suffer from the boom/bust cycles of its economic growth based on sugar. During the 1950s Cuba again faced economic and political dislocation and turbulence largely because of the declining world prices of sugar.

Conclusions

The results of the Cuba Company railroads and development strategy was extraordinary. A new, industrial, high capacity sugar industry was born in Cuba and became the largest part of the Cuban economy prompting the Cuba Company to state in 1933 that "Cuba is 85% sugar."[39] The vast expansion of the sugar industry in eastern Cuba created a fast growing economy for nearly twenty years as production expanded rapidly, duty was reduced after the 1903 Reciprocity Treaty with the United States, and sugar prices climbed, especially between 1914 and 1920.[40] However, by the 1921 collapse of the world sugar market, Cuba was faced with an economy producing a single primary product for export. Its export-led growth was due only to sugar which remained the dominant feature of the Cuban economy for the decades to come.

In the long term, the concentration of the Cuban economy in the sugar industry, initiated and reinforced by the Cuba Company's development strategies and its railroads, led to stagnant growth of the economy, extreme concentration of wealth and land ownership, and a shift of ownership of sugar companies to American hands after the 1921 collapse. These effects produced barriers to diversification or industrialization in manufactured goods and precluded a transformation of the economy. The result was a general underdevelopment of the economy and society. In Cuba as in Mexico,

> Export-led growth, which the railroads promoted and sustained, revitalized old barriers and created wholly new obstacles to development: low levels of investment in human resources, over commitment of private and public capital to export sector investment, public agencies and private activities highly specialized in channeling foreign capital rather than capturing domestic savings, information and communication systems structured to facilitate international transactions rather than local market activity, extreme concentration of wealth and income, and authoritarian rule.[41]

The short term economic impact of the Cuba Company's development strategy and railroads in eastern Cuba was rapid and massive economic growth in the eastern Cuban sugar industry. The rapid and massive growth of the eastern Cuban sugar industry resulted in rapid growth of the national economy. However that growth based on the sugar industry precluded diversification and large-scale manufacturing. The long-term economic impact of the railroads and the Cuba Company's strategy was a lack of diversification and industrialization. The Cuba Company development strategies and railroads affected and combined with many social, economic, and political variables resulting in underdevelopment. The result is that Cuba still struggles with those same issues of underdevelopment and still struggles to transition the economy from sugar production to diversified agricultural production and industrialization.[42]

Notes

1. The Cuba Company's railroad lines dramatically reduced transportation costs for any industry. Therefore, the railroad in and of itself was not directly responsible for the expansion of the sugar industry. Theoretically any industry could have benefitted and expanded. However, the reduced transportation costs afforded by the railroads combined with the Cuba Company's aggressive promotion and financing of sugar industry investment, Cuban elites' predisposition toward the sugar industry, the increased prices of sugar and decreased world production of sugar due to the first world war, and the intimate economic, political, and social relations between Cuba and the United States to produce the massive expansion of the sugar industry. The railroads were not indispensable for the expansion of the eastern Cuban sugar industry, but they were a powerful catalyst. Sugar production could have expanded based on private railroads and ports, but the Cuba Company's railroads and strategies made that unnecessary. For an excellent examination of the 1898-1902 time period, which emphasizes the role of the US and of US business, see Louis A. Perez, *Cuba Between Empires, 1878-1902* (Pittsburgh: University of Pittsburgh Press, 1983) and *Cuba and the US: Ties of Singular Intimacy* (Athens: The University of Georgia Press, 1990) among his other works. For perspective on the early historiography of Cuba and specifically the role of US business and investments in Cuba see, Ramiro Guerra y Sánchez, *Azúcar y Población en las Antillas* (La Habana: Lex, 1927), *En el camino de la independencia: estudio historico sobre la rivalidad de los Estados Unidos y la Gran Bretaña en sus relaciones con la independencia de Cuba, con un apendice titulado de Monroe a Platt* (La Habana: Cultural, S.A., 1930), and *La expansión territorial de los Estados Unidos (a expensas de España y de los paises hispanoamericanos)* (La Habana: Editorial de Ciencias Sociales, 1973); Leland H. Jenks, *Our Cuban Colony* (New York: Vanguard Press, 1928); Charles E. Chapman, *A History of the Cuban Republic* (New York: Macmillan, 1927); and Carleton Beals, *The Crime of Cuba* (Philadelphia: Lippincott, 1934). For more recent Cuban scholarship see Oscar Pino Santos, *El asalto a Cuba por la oligarquía financiera yanqui* (Habana: Casa de las Americas, 1973), and Oscar Zanetti and Alejandro García, *Caminos Para el Azucar* (Habana: Editorial de Ciencias Sociales, 1987) among others. In terms of North American scholarship, as representative samples see Philip S. Foner, *A History of Cuba and its Relations with the United States* (New York: International Publishers, 1962); Lester D. Langley, *The Cuban Policy of the United States* (New York: Wiley, 1968); Jules R. Benjamin, *The United States and Cuba: Hegemony and Dependent Development, 1880-1934* (Pittsburgh: University of Pittsburgh Press, 1977); Robert B. Hoernel, "A Comparison of Sugar and Social Change in Puerto Rico and Oriente, Cuba: 1898-1959" (Ph.D. dissertation, Johns Hopkins University, 1977); Jorge F. Pérez-Lopez, *The Economics of Cuban Sugar* (Pittsburgh: University of Pittsburgh Press, 1991); Cesar J. Ayala, *American Sugar Kingdom* (Chapel Hill: University of North Carolina Press, 1998) and "Social and Economic Aspects of Sugar Production in Cuba, 1880-1930," *Latin American Research Review* 30, Number 1 (1995): 95-124; Thomas F. O'Brien, "The Revolutionary Mission: American Enterprise in Cuba." *American Historical Review* 98 (June 1993): 765-785; Juan Carlos Santamarina, "The Cuba Company and Cuban Development, 1900-1959," (Ph.D. diss., Rutgers University, 1995); Alan Dale Dye, *Cuban Sugar in the Age of Mass Production* (Stanford: Stanford University Press, 1998); and Juan Carlos Santamarina, "The Cuba Company and the Expansion of American Business in Cuba, 1898-1915," *Business History Review* 74 (Spring 2000): 41-83.

2. See Alan Dale Dye, "Tropical Technology and Mass Production: The Expansion of Cuba Sugarmills, 1899-1929" (Ph.D. dissertation, University of Illinois at Urbana-Champaign, 1991), 1. Also see his revised and published dissertation, *Cuban Sugar in the Age of Mass Production.* Dye argues that the growth in the capacities of mills and in the expansion of the land required to support them was "in response to the adoption of new mass production technologies that were being spread throughout many industries during this period."

3. The economic impact of the Cuba Company's railroad can be stated as an equation: The railroad + the Cuba Company's aggressive promotion and financing of sugar production + Cuba's and Cuban elites historic predisposition toward sugar production + the Reciprocity Treaty of 1903 and the intimate economic, political, social, and cultural relations with the U.S. + the U.S.'s capital investment capacity = massive U.S., and domestic, investment in sugar = massive expansion of the sugar industry = massive short term economic growth = precluded diversification and industrialization.

4. Due to the boom/bust cycle of export-led growth dependent on primary products, especially a single product such as sugar, diversification and industrialization are assumed by most modern economists to be the ideals of economic development. Diversification guards against the boom/bust cycle by ensuring that when the market price of one product is down, another is at least stable and balances the losses. In addition, the goal of

industrialization is to improve productivity and efficiency. Manufactured goods have an added value that primary products do not and therefore their prices are more stable. Industrialized economies suffer much less from boom/bust cycles since manufactured goods are less price-sensitive. That is, unlike commodities, the added value in manufactured goods prevents massive price fluctuations. Cuba's economy industrialized after 1902 which greatly improved productivity. However, the industrialization and resulting increased productivity was dedicated solely to the sugar industry which made sugar production more profitable and more attractive to investment. As a result, the sugar industry expanded rapidly and massively precluding investment in other primary products or manufactured goods. Industrialization and the resulting productivity gain in the sugar industry thus became a barrier to diversification. Most of Latin America at different times in the Twentieth Century attempted Import Substitution Industrialization (ISI) as an initial step toward diversification and a transformation toward manufacturing goods. Cuba, however, failed miserably in the years before 1959 at stimulating industrialization of the country's economy by using ISI due to a variety of reasons, including Cuban elites' predisposition to the sugar industry caused by the intimate ties to the U.S. market.

5. This separation of eastern and western Cuba by the inaccessible interior in between created and sustained the perception of the "two Cubas," the developed port and city of Santiago on one end of Cuba, and Havana and the western provinces on the other. The eastern Cuban interior was a great undeveloped void. See J. Pérez de la Riva, *El Barracon y otros ensayos* (La Habana: Editorial de Ciencias Sociales, 1975). See especially pages 70-89, chapter entitled "Una isla con dos historias." The country lacked the integration which a central railroad would have made possible. Also, when Spain controlled Cuba, the lack of a central railroad was seen as dangerous to Spain's control of the island and as a detriment to the economic development of Cuba. However, several different forces always prevented the construction of a central railroad. For more detail on this see Hugh Thomas, *Cuba: The Pursuit of Freedom* (New York: Harper and Row, 1971), 462-466.

6. Pérez de la Riva, *El Barracon y otros ensayos*, 83.

7. Ibid., 85-86.

8. Trapiches is the name used to refer to the old nineteenth century sugar mills.

9. Pérez de la Riva, *El Barracon y otros ensayos*, 83.

10. See Gerardo Canet, *Atlas de Cuba* (Cambridge: Harvard University Press, 1949).

11. Pérez, *Cuba: Between Reform and Revolution*, 191.

12. Ibid., 193.

13. At Santa Clara it connected with the United Railways of Havana. For the first time in Cuban history, a traveler could leave Havana and arrive in Santiago 24 hours later. The railroad reduced travel time from over a week by steamer service to just under one day. The Cuba Railroad Company by 1926 increased its lines to 947 miles.

14. During the war, 1895-1898, the Spanish government instituted a policy of reconcentrating Cuban *campesinos*. It was aimed at depopulating the countryside. The policy almost succeeded, resulting in the death of hundreds of thousands of Cubans. After the war, many of the Cubans who survived did not return to their towns and villages quickly. Indeed, when the Cuba Company began building the railroad, lack of a steady, large workforce was a major problem. See National Archives, Record Group 140; Records of the Military Government of Cuba. 1900:5304, Box 113, and 1900:5179-5425. Details the Cuba Company and other companies' need for contract laborers to be brought into Cuba from Spain in 1900 due to lack of labor.

15. The British-owned United Railways of Havana consolidated most western Cuban railroads in 1920. It acquired the Western Havana Railroad, the Havana Central, and the Cuban Central. Poor's Manual Company, *Poor's Manual: Railroads of the United States* (New York: Poor's Railroad Manual Company) volumes for 1907-1921.

16. The total railroad mileage, in addition to the Central Highway built in the 1920s, and additional roads provided the core needs of transportation in eastern Cuba. The Cuba Company's subsidiary railroads efficiently serviced all of eastern Cuba.

17. See bound volumes entitled, "Meetings of the Directors of the Cuba Company, From Incorporation to 1913," 2-6, Cuba Company Records of the University of Maryland at College Park Libraries, (hereafter coded CCR), Series 1, Box A.

18. For an excellent study of the modernization of American and Cuban sugar production see John A. Heitmann, *The Modernization of the Louisiana Sugar Industry, 1830-1910* (Baton Rouge: Louisiana State University Press, 1987), Alan Dale Dye, *Cuban Sugar in the Age of Mass Production*, and Cesar J. Ayala, *American Sugar Kingdom*.

19. Farr and Company, *Manual of Sugar Companies, 1939* (New York: Farr and Company, 1939), 91-92.

20. Basil Woon, *When It's Cocktail Time in Cuba* (New York: Horace Liveright, 1928), 242. An extremely interesting and amusing travel book.

21. Miscellaneous undated memoranda from Sir William C. Van Horne, CCR. Series 1, Box A.

22. Ibid., Series 1, Box A.

23. Letter from Sir William C. Van Horne to Horatio Rubens, dated September 8, 1900, CCR, Series 1, Box A.

24. CCR. Series 1, Box 19. Van Horne argued against latifundia due to their inherent inefficiency. Van Horne planned to rent much of the Cuba Company's 300,000 acres to small farmers as tenant farmers, with their rents and profits based on their production. He also strongly encouraged attracting small *colonos* to lands around the railroad and even proposed advancing money to them so they could begin planting cane, citrus, tobacco, or other products.

25. See Carl Van Ness "Sugar, Railroads, and Dollar Diplomats: Railroad Construction in Eastern Cuba, 1898-1923" (M.A. thesis, University of Florida, 1985). Van Ness argues that the Cuba Company's railroad did not have much of an impact on eastern Cuban economic development prior to 1914 and that sugar mills and mining operations circumvented the railroad through the use of private railroads and ports. He is correct that prior to 1914 the Company was unsuccessful in establishing many mills or other development. However, after 1914 the world war and the benefits of the Cuba Railroad combined to produce massive investment in eastern Cuban sugar production. The Cuba Company's railroads serviced most of the new mills, 45 in total, and José Tarafa's Cuba Northern service those along the north coast of eastern Cuba. Private railroads and ports were important, but the new mills built after 1914 were, with the exception of those mills on the north coast serviced by the Cuba Northern, farther inland and built along the Cuba Railroad's lines. Thus, the Cuba Railroad serviced them for hauling cane and refined sugar. As a result, the Cuba Railroad's annual operating revenues rose from $5 million in 1914 to $16 million in 1920 and $18 million in 1925.

26. Harahan Report of W.J. Harahan dated June 12, 1924, CCR, Series 6, Box 151. Harahan was hired to investigate the Cuba Company's railroads and future earning potential as part of the on-going negotiations with Tarafa for a merger of the Cuba Railroad and the Cuba Northern.

27. Manuel Rionda was a Spaniard and a principal partner in the firm Czarnikow-Rionda, the world's largest sugar broker, based in New York, and handling 50% of the world sugar trade. Rionda was lured into the sugar manufacturing business because of its high profit margins. Cuban sugar manufacturing, between 1910 and 1925 was the most profitable in the world.

28. Memorandum #1, CCR, Series 3, Box 133.

29. Memoranda #1-7, CCR, Series 3, Box 133.

30. Canet, *Atlas de Cuba*, 44-45.

31. The collapse of sugar prices in 1921 precipitated the collapse of the Cuban sugar industry. The result was a major shift in ownership of the sugar mills in eastern Cuba. The Chase Bank of New York, the National City Bank of New York, or the Royal Bank of Canada owned most of the new mills in eastern Cuba. By 1930, Cuba Cane Sugar Company's 30 mills were included in the list of failed companies. After the mills defaulted on their high-interest loans, foreclosure and bank ownership was the result. The banks, therefore, began operating the sugar mills in order to recover their $60 million investment.

32. See Leland Jenks, *Our Cuban Colony*.

33. For ownership data see Susan Schroeder, *Cuba: A Handbook of Historical Statistics*, 258. Also see Francis Adams Truslow, *Report on Cuba* (Washington D.C.: International Bank for Reconstruction and Development, 1951), Chapters 5-7.

34. See Jorge Pérez-Lopez, *The Economics of Cuban Sugar*.

35. Truslow, *Report on Cuba*, 136.

36. Sugar production can vary greatly from year to year depending on several factors: sugar demand, sugar prices, quotas, weather and climate, labor, etc. Therefore, sugar production fluctuations on a massive scale were not uncommon in Cuba.

37. Schroeder, *Cuba: A Handbook of Historical Statistics*, pp. 470.

38. Pérez, *Cuba: Between Reform and Revolution*, 297.

39. Memorandum #1, 6, CCR, Series 3, Box 133.

40. Sugar prices climbed dramatically between 1914 and 1920 due to the results of the world war. By 1920 sugar reached historic highs above $0.15 per pound, almost four times the pre-1914 prices of $0.04 per pound. The high sugar prices of 1920 was called the "vacas gordas" or the dance of the millions. The total Cuban sugar production in 1920 was just over four million tons, and was worth almost $800 million, or four times the 1913 value.

41. John H. Coatsworth, *Growth Against Development: The Economic Impact of Railroads in Porfirian Mexico* (DeKalb: Northern Illinois University Press, 1981), 189.

42. The sugar subsidies from the Soviet Union contributed to the dependence on sugar as the primary economic activity in Cuba after 1959. The subsidies created an artificial economy wherein sugar production was a profitable export, not subject to the normal market price fluctuations. The result is that Cuba did not industrialize or diversify to any large degree after 1959 and maintained sugar production as the country's main economic activity.