DUTCH DISEASE AND BANANA EXPORTS

IN THE COLOMBIAN CARIBBEAN, 1910- 1950

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CARTAGENA

OUTLINE

I. **INTRODUCTION**

> "Sale el tren de Santa Marta
> Ciénaga se ve dormida
> de Rio Frío hasta Aracataca
> donde mi abuelo cultiva
> Fundación ya está de fiesta
> viene el tren pidiendo vía
> las canciones vallenatas
> se oyen en la lejanía.
> ……………………………
> Pá mi abuelo fue el progreso
> y eso lo tenía contento
> viviendo las malas horas
> lo   llamó   los   buenos
> tiempos".
>
> Carlos Vives, Los buenos
> tiempos

In 1994, the seven departments of the Colombian Caribbean had a population of about 7.2 million, representing 21% of the country´s total. The region is at present the poorest in Colombia, with a per-capita Gross Domestic Product (GDP) of only 63.5% of the national average.

The relative backwardness of the Colombian Caribbean is a twentieth century phenomenon. At the beginning of this century that was not the case. However, since then its economy has performed poorly. Unfortunately, we only have GDP statistics at the departmental level for the period 1950 to

1995. Thus, for the first fifty years of the century we do not have an adequate understanding of the evolution of Colombian regional incomes.

From 1950 to 1995 the average yearly rate of growth of per-capita GDP in the Colombian Caribbean was 1.0%. In contrast, the rate of growth of per-capita GDP for Colombia was 2.0%. It is also clear, as we shall see in this paper, that between 1910 and 1950 the economy of the departments of the Colombian Caribbean lagged behind the rest of the country. It is relevant to determine the causes behind the economic failure of the region in the twentieth century because its slow growth is a negative influence on the growth prospects of Colombia as a whole.

One of the main reasons for the dismal economic performance of the Caribbean Coast in the last 100 years, is the failure of its export sector in the initial decades of the century. By analyzing the case of bananas, the main export of the Colombian Caribbean during this century, the paper will argue that the poor performance of the foreign sector of the region was a consequence of the boom in coffee exports experienced by the rest of the country between 1910 and 1950. In particular, that it was itself the result of the presence of what is known in the economic literature as Dutch Disease.

II. **BANANA EXPORTS FROM THE COLOMBIAN CARIBBEAN, 1891-1950**

The cultivation of bananas for export on a commercial scale in the Colombian Caribbean began in 1887 in the district of Rio Frío, some fifty kilometers from the seaport of Santa Marta.[1] In that year, the merchant Jose Manuel González acquired 100 hectares of land which were planted with seeds of the Gros Michel variety, brought from Bocas del Toro, Panama. On March 21,1891 the first 5.113 stems were exported aboard the steamer "Simon Dubois".[2] Other shipments of bananas followed, but with limited success. The lack of adequate transportation often led to large losses of fruit, as the cargo often arrived in the port of destination overripe. Thus, Manuel Gonzalez sold his banana cultivation to one J. Sanders, of New Orleans.[3]

In 1892, Sanders sold his interest in the emerging Zona Bananera to the Colombian Land Company, a British firm[4]. New plantations proliferated around the district of Rio Frio and exports increased from 171.891 stems in 1892 to 485.385 by 1899. In the early 1890´s, Minor C. Keith acquired

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[1] Manuel J. Diaz-Granados,Geografia economica del Magdalena Grande (1946-1955), Instituto de Cultura del Magdalena, Santa Marta, 1996, p.282.
[2] Demetrio Daniel Henriquez, Monografia completa de la Zona Bananera, Tipografia El Progreso, Santa Marta, 1939, p.13. According to Maurice P. Brungardt the first exports of bananas occurred in 1889, Maurice P. Brungardt,"The United Fruit in Colombia", in Henry C.Dethloff and Joseph Pusateri (editors), American Business History, Harlon Davidson Inc., USA, 1987,p.238.
[3] Diaz-Granados, OP.CIT.,p.284.
[4] What came to be known as the Zona Bananera is a fifty kilometer long alluvial belt, which spreads south of the port of Santa Marta, from the western foothills of the Sierra Nevada towards the lowlands of the Cienaga Grande (see Map 3).

control of the Colombian Land Company.[5] Four years later the Colombian Land Company, the Boston Fruit Company, and Minor C. Keith, joined efforts and created the United Fruit Company.[6]

With the presence of the United Fruit Company in the Colombian Caribbean production of bananas on a large scale began in the region. After a drop in production during the Colombian civil war of 1899-1902, exports of bananas grew at incredibly high rates. From 1903 to 1911, the average annual rate of growth of the number of stems exported from the Colombian Caribbean was 28.9%.

Undoubtedly, the United Fruit Company was a crucial factor in the rapid growth of exports from the region . In 1900, the United Fruit Company owned eleven steamers and had more than thirty ships under contract. The initial export efforts in the Zona Bananera in the 1890´s had been plagued by inadequate transport facilities, which made regular shipments very difficult.[7] At the turn of the century, the United Fruit Company emerged as the unrivaled master of the banana trade in the world, controlling 80% of total exports. Thus, it was able to obtain significant economies of scale, which

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[5] E. Taylor Parks, Colombia and the United States,1765-1934, Duke Universiry Press, USA, 1935, p.283.

[6] "American Consul in Santa Marta to the Secretary of State, May 8,1920",American Consular Service, Records of the Department of State, 1910-1929.

[7] Samuel Crowther,The Romance and Rise of the American Tropics, Doubleday,Doran and Company, New York, 1929, p.282.

arose as a result of the perishable nature of the fruit.[8] Because bananas cannot be stored , a steady flow of arrivals must be scheduled:"This requires a fleet of ships under the control of the marketing organization, special arrangements with the railroads for prompt movement to inland markets, and a continuous system of inspection to ensure proper temperature controls. Such an integrated organization involves high overhead expenses, and profitability depends upon the distribution of a large volume of fruit."[9]

By the end of the 1920´s, the United Fruit Company had grown into a vast operation spread throughout Colombia, Costa Rica, Guatemala, Honduras, Jamaica, Panama, and the Canary Islands. In 1928, its main commercial crops were bananas (168.198 acres), sugar (92.047 acres), and cacao (45.997 acres)(see Table 1).[10] It also owned 2.434 kilometers of railroads and ninety ships, the Great White Fleet, in which it transported the fruit to the markets of Europe and the United States.[11]

The land under cultivation by the United Fruit in the Colombian Caribbean expanded from 1.299 acres in 1902 to 29.818 acres by 1928.[12]In that last year, the total acreage planted in the Colombian Caribbean by the United

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[8] International Bank for Reconstruction and Development, "The Banana Industry in the Caribbean Area",September, 1948, (mimeo),p.4.
[9] IBID.
[10] United Fruit Company, Twenty-Ninth Annual Report to the Stockholders, December 31, 1928.
[11] Catherine LeGrand,"El conflicto de las bananeras", Nueva historia de Colombia, Tomo III, Planeta, Bogota, 1989, p.185.
[12] "Development of the Banana Industry in Colombia", Edwin Walter Kemmerer Papers, Princeton University Manuscript Library, Box 113, p.3.

Fruit, represented 17.7% of all the banana cultivations of the company (see Table 2).

By the end of the 1920´s Colombia had the second largest plantations of bananas in the world, surpassed only by Honduras (see Table 3). However, since productivity in Jamaica was the highest in the Caribbean, Colombia was only the third exporter of bananas in the world, after Honduras and Jamaica (see Table 4).[13]

A crucial factor in the rapid increase of banana exports from the Colombian Caribbean in the first decades of the twentieth century was the construction of a railroad linking the plantations with the seaport of Santa Marta, from where they were dispatched to Europe and the United States aboard the steamers of the United Fruit Company.

The railroad that went through the banana plantations, the Zona Bananera, originated in a contract signed in 1880 between the Estado del Magdalena and Manuel Julian de Mier and Robert A.Joy, for the construction of a railroad from Santa Marta to the Magdalena River.[14] By 1892 the railroad had

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[13] In the 1920´s Jamaica´s annual production per acre was between 200 and 250 bunches, while in Central America it was between 120 and 150, Kepner, OP.CIT.,p.65.

[14] The contract was approved by the Colombian Congress through Law 53 of 1881, Alfredo Ortega, Ferrocarriles colombianos, Imprenta Nacional, Bogota, 1949,p.44.

TABLE 1
LAND AND CULTIVATIONS
OWNED BY THE UNITED FRUIT COMPANY
(December 31, 1928)

Cultivations	Area (Acres)	
Bananas:		
Colombia	29.818	
Costa Rica	13.980	
Guatemala	26.860	
Honduras	73.769	
Jamaica	9.710	
Panama	13.176	
Canary Islands	885	
Total Banana Acreage		168.198
Sugar:		
Cuba		92.047
Cacao:		
Costa Rica	22.093	
Guatemala	105	
Jamaica	88	
Panama	23.711	
Total Cacao Acreage		45.997
Coconuts		7.727
Other products		9.172
Pastures		117.272
Town sites, roads, fire lines, etc.		55.360
Total Improved Acreage		495.773
All Lands owned and leased:		
Improved Land:		
Owned	462.231	
Leased	32.026	
Total Improved		494.257
Unimproved land:		
Owned	1.860.844	
Leased	122.184	
Total Unimproved		1.983.028
Total Improved and Unimproved Acreage		2.477.285

Source: United Fruit Company, Twenty - Ninth Annual Report to the Stockholders, December 31, 1928.

TABLE 2
BANANA CULTIVATIONS OF THE UNITED FRUIT
COMPANY IN COLOMBIA AND IN OTHER COUNTRIES
(Acres)

Year	Colombia	Total	Participation of Colombia (%)
1904	1.646	60.292	2,7
1905	1.705	56.474	3,0
1909	4.346	75.825	5,7
1915	17.432	128.820	13,5
1917	15.243	114.530	13,3
1920	16.197	138.290	11,7
1928	29.818	168.198	17,7
1934	9.945	114.920	8,7
1944	1.849	111.557	1,7

Source : United Fruit Company, <u>Annual Report to the Stockholders</u>, several years.

reached the town of Rio Frio.[15]   In 1887, with a total extension of 35 kilometers, it had reached Cienaga.[16]

The original promoters of the railroad, Manuel Julian de Mier and Robert. A. Joy, sold their concession in 1890 to the British firm "The Santa Marta Railway Company".[17] This company continued the construction of the railroad, which by 1894 reached the town of Sevilla, 66 kilometers from Santa Marta. Finally, in 1906 it arrived in Fundacion, at the southern end of the Zona Bananera.

After 1906, the growth of the railroad line was concentrated in the extension of branch lines crisscrossing the Zona Bananera around the towns of Riofrio, Sevilla, Aracataca, and Fundación.[18] Table 5 shows that, by 1910, the main line, extending from Santa Marta to Fundacion, was complete and that there were 64.6 kilometers of secondary lines.

Railroad transportation of bananas from the plantations to the port of Santa Marta operated twenty four hours a day, all year round.[19] In the Santa Marta bay the railway company had built in 1905 two steel docks in which two steamers could be loaded simultaneously.

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[15] "Development of the Banana Industry in Colombia", Edwin Walter Kemmerer Papers, Box 113, Princeton University Manuscript Library, p.3.

[16] Demetrio Daniel Henriquez, Monografia completa de la Zona Bananera, Tipografía El Progreso, Santa Marta, 1939, p.10.

[17] Gustavo Arias de Greiff, La mula de hierro, Carlos Valencia Editores, Bogota, 1986, p.43.

[18] In 1908 the Santa Marta Railway Company began the construction of branch lines and by 1910 it had built more than 55 kilometers, Ferrocarril de Santa Marta, Imprenta El Comercio, Barranquilla,1911,p.14.

At the turn of the century, and perhaps since the mid 1890´s, Minor Keith had taken over the Santa Marta Railway Company.[20] The railroad operation was closely linked with the exports of bananas, which constituted the bulk of the freight it mobilized. For example, in 1922, of the total revenues of the Santa Marta Railway Company, 70.5% came from the transportation of bananas.[21] The rest of the revenues were also related to the banana business since the passengers transported (15% of total revenues) were mainly the workers from the plantations of the United Fruit and the private cultivators.

In 1921, the Santa Marta Railway Company transported 6.188.782 stems of bananas , 357.404 passengers, and 53.892 tons of other commercial freight.[22] In that year, the Santa Marta Railway Company employed 998 workers. It also owned twenty locomotives, 277 freight cars (218 box cars, 51 flat cars, four livestock cars, two tank cars, 24 passenger cars, and two cars of other types). There were a total of thirty small branch lines, rarely exceeding ten kilometers from the main line.

Since the Santa Marta Railway Company was wholly dependent for its income on the transportation of bananas and laborers from the plantations, it had no interest in extending the line beyond Fundación, the last outpost of

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[19] "Reportaje a Phillip P. Marshall, Gerente del Ferrocarril de Santa Marta", IBID.,14.
[20] Brungardt,OP.CIT.,p.243.
[21] "Railroads of Colombia", American Consul, December 14, 1921, American Consular Service, Records of the Department of State, 1920-1929.
[22] IBID.

TABLE 3
BANANA CULTIVATIONS OF THE UNITED FRUIT COMPANY
IN THE CARIBBEAN
(Acres)

Country	1905	1928	1944
Colombia	1.705	29.818	1.844
Costa Rica	19.387	13.980	18.085
Cuba	4.334	-	-
Guatemala	-	26.860	29.362
Honduras	-	73.769	37.646
Jamaica	7.157	9.710	871
Panama	20.031	13.176	18.840
Santo Domingo	3.860	-	-
Other	8.194	885	4.904
Total	32.583	154.137	87.808

Source: United Fruit Company, Annual Report to the Stockholders, several years.

TABLE 4
MAIN EXPORTERS OF BANANAS IN THE WORLD
(Millions of stems)

Country	1913	1929	1947
Brazil	-	6,2	5,9
Colombia	6,3	10,3	2,0
Costa Rica	9,4	5,8	6,1
Cuba	2,3	3,7	1,9
Guatemala	3,4	6,6	14,9
Honduras	8,2	28,2	15,2
Jamaica	11,4	22,0	4,0
Mexico	2,2	5,6	5,6
Nicaragua	1,6	4,2	0,2
Panama	5,2	4,7	6,4
Canary Islands	NA	NA	4,0

Source: For 1913 and 1929, Charles David Kepner, Social Aspects of the Banana Industry, New York, 1936, and for 1947, International Bank for Reconstruction and Development, " The Banana Industry of the Caribbean Area", September, 1948, (Mimeo).

TABLE 5
EXTENSION OF THE RAILROAD LINE IN THE ZONA BANANERA
OF SANTA MARTA IN 1910

Line	Extension (Kilometers)
Main line	94,7
Branch lines:	
El Prado	1,2
Las Mercedes	2,7
Tablazo Viejo	4,3
Tablazo Nuevo	10,0
Sevilla 1	7,8
Sevilla 2	3,7
Macondo	3,5
Tucurinca	2,0
Aracataca 1	4,0
Aracataca 2	5,0
Theobromina	10,9
Buenavista	4,0
Las Flores	4,8
La Bogotana	0,8
Total	159,4

Source: Alfredo Ortega, Ferrocarriles de Colombia, Biblioteca de la
Historia Nacional, Vol. 26, 1923, p. 606.

the Zona Bananera . As a result, it failed to comply with the terms of the original contract with the government, whereby the railroad had to be extended all the way to the Magdalena River. This led to a ruling by the Colombian Supreme Court in 1921, by which the government had the right to acquire the railroad as well as the branch lines built by the United Fruit Company.[23]

Finally in 1932, the government made use of its right to buy the railroad. Rather than operating it directly, the Colombian government decided to lease it to the Santa Marta Railway Company.[24] Later, in 1947 it assumed direct control of the railroad.

Exports of bananas from the Santa Marta region grew rapidly after 1891. The average annual rate of growth of the number of stems exported in the period 1891-1900 was 14.9%. This expansion was achieved in spite of a drop of production in 1894 as a result of a hurricane that struck the region in December of that year.[25] There was also a drop in production from 1900 to 1902 due to the outbreak of the worst civil war that the country has ever experienced, and which lasted from 1899 to 1902 (see Table 6 and Graph 1).

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[23] The term for the Santa Marta Railroad Company to comply had expired in 1911. Since that date the company was involved in a legal battle with the Colombian government. For the company´s point of view see, Ferrocarril de Santa Marta, Exposicion que al Honorable Congreso de 1915 hace el Gerente de la Compañía, Imprenta La Luz, Bogota, 1915.

[24] Alfredo Ortega, Ferrocarriles colombianos, Imprenta Nacional, Bogota, 1949, p.50.

[25] Manuel J. Díaz Granados, OP.CIT., pp. 284-285.

From 1901 to 1910, the number of stems exported grew at an average annual rate of 30.2%. There was a drop in 1914,1915, and 1916, as a result of the scarcity of shipping brought about by World War I.[26] After the war banana exports grew continuously until 1930.[27]

The reduction of international trade brought about by the Great Depression severely affected the quantity of bananas exported from Colombia. In 1931 the number of stems sent abroad fell to 5.403.743, only 49% of the level achieved in the previous year. Although there was a slight recovery from 1932 to 1935, the level of banana exports achieved in the 1920´s would never again be seen in the Colombian Caribbean.

Until 1934 all banana exports originated in the Santa Marta region. Since 1935 there were also exports from the departments of Chocó and Nariño (see Table 6 and Table 7), but they never represented more than 4% of the total.

Beginning in 1936 the sigatoka disease made its appearance in the Zona Bananera.[28] However, the negative impact on production was felt at the beginning of 1937.[29] During World War II, banana exports dropped sharply as a result of the scarcity of transpotation, and practically disappeared in

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[26] "Development of the Banana Industry in Colombia", Edwin Walter Kemmerer Papers, Box 113, Princeton University Manuscript Library, p. 7.
[27] From 1916 to 1930 the average annual rate of growth of the number of stems exported was 7.5%.

1943. Although production rose again after the war, only by the early 1950´s were the pre-war levels attained.[30]

What factors led the <u>Zona</u> <u>Bananera</u>, which in the 1920´s had been the third exporter of bananas in the world, to a marginal position by the late 1940´s, when it contributed only 2% of total world exports of the fruit ?[31] The traditional interpretation has been that : "Plagues, deterioration of the soil, labor conflicts, and the increase in government intervention led the United Fruit Company to concentrate its efforts in other countries of the world".[32]

I believe that the traditional explanation for the downfall of the <u>Zona</u> <u>Bananera</u> as a major banana producing area in the Caribbean is not adequate, since plagues, labor conflicts, deterioration of the soil, and government intervention were present in all producing countries. Instead the fundamental reason why there was a decline in the relative importance of this area was an increase in relative costs of production, brought about by the

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[28] The sigatoka is a leaf blight which withers the leaves required to shade the fruit from the sun. Thus, the bananas ripen prematurely , resulting in a deterioration of the quality, International Bank for Reconstruction and Development, <u>OP. CIT</u>., p.2.

[29] <u>Informe del Ministro de Economia</u>, Imprenta Nacional, Bogota , 1939, p.28.

[30] Although it exceeds the time span covered by this paper, it should be mentioned that the United Fruit Company started to plan a complete withdrawal from the <u>Zona Bananera</u> in 1956, when the dreaded Panama Disease made its appearance in the area. By 1966 it had withdrawn completly . See James R. Krogzemis, <u>A Historical Geography of the Santa Marta Area, Colombia</u>, Department of Geography, University of California-Berkeley, 1967, p.33. However, since 1964 the United Fruit Company had started production in Urabá, another region of Colombia. For this later process, see: Marcelo Bucheli,"Empresas multinacionales y enclaves agricolas: el caso de la United Fruit Company en el Magdalena y Urabá, Colombia (1948-1968)",Monografia No. 40, Facultad de Administracion, Uniandes, 1994.

[31] In 1947, Colombian exports of bananas represented 2.45% of the world total, International Bank For Reconstruction and Development, <u>OP. CIT</u>., Table 1.

TABLE 6
COLOMBIAN EXPORTS OF BANANAS
(Stems)

Year	Caribbean Region	Other Regions	Total
1891	74.915	0	74.915
1892	171.891	0	171.891
1893	201.875	0	201.875
1894	298.776	0	298.776
1895	155.845	0	155.845
1896	335.834	0	335.834
1897	472.454	0	472.454
1898	420.966	0	420.966
1899	485.385	0	485.385
1900	269.877	0	269.877
1901	253.193	0	253.193
1902	314.006	0	314.006
1903	478.448	0	478.448
1904	787.244	0	787.244
1905	863.750	0	863.750
1906	1.397.388	0	1.397.388
1907	1.938.711	0	1.938.711
1908	2.028.850	0	2.028.850
1909	3.222.152	0	3.222.152
1910	3.844.519	0	3.844.519
1911	4.901.894	0	4.901.894
1912	4.005.927	0	4.005.927
1913	5.594.151	0	5.594.151
1914	5.017.164	0	5.017.164
1915	4.094.231	0	4.094.231
1916	3.216.361	0	3.216.361
1917	4.987.315	0	4.987.315
1918	5.292.304	0	5.292.304
1919	5.022.069	0	5.022.069
1920	6.294.754	0	6.294.754
1921	7.404.314	0	7.404.314
1922	7.098.852	0	7.098.852
1923	7.472.783	0	7.472.783
1924	9.177.063	0	9.177.063
1925	9.918.815	0	9.918.815
1926	10.893.065	0	10.893.065
1927	8.625.329	0	8.625.329
1928	10.220.042	0	10.220.042
1929	10.332.113	0	10.332.113
1930	11.034.936	0	11.034.936
1931	5.403.743	0	5.403.743
1932	6.930.796	0	6.930.796
1933	7.205.560	0	7.205.560
1934	7.668.370	0	7.668.370
1935	7.963.467	61.486	8.024.953
1936	7.946.714	362.164	8.308.878
1937	6.393.697	191.495	6.585.192
1938	7.209.432	283.419	7.492.851
1939	7.273.043	302.027	7.575.070
1940	4.613.501	389.657	5.003.158
1941	2.379.412	293.025	2.672.437
1942	251.529	3.704	255.233
1943	500	0	500
1944	441.394	18.563	459.957
1945	1.377.965	4.893	1.382.858
1946	2.104.842	5.572	2.110.414
1947	3.245.288	93.364	3.338.652
1948	4.530.532	184.979	4.715.511
1949	6.039.692	239.916	6.279.608
1950	6.272.489	165.345	6.437.834

Source: Rafael Uribe Uribe, " El banano", Revista nacional de agricultura,
Nº 1-3, Mayo, 1908; Manuel J. Diaz-Granados, Geografía económica
del Magdalena Grande (1946-1955), Instituto de Cultura del Magdale-
na, Santa Marta, 1996, pp. 287-291.

GRAPH 1
BANANA EXPORTS FROM THE
COLOMBIAN CARIBBEAN,1891-1950
(THOUSANDS OF STEMS)
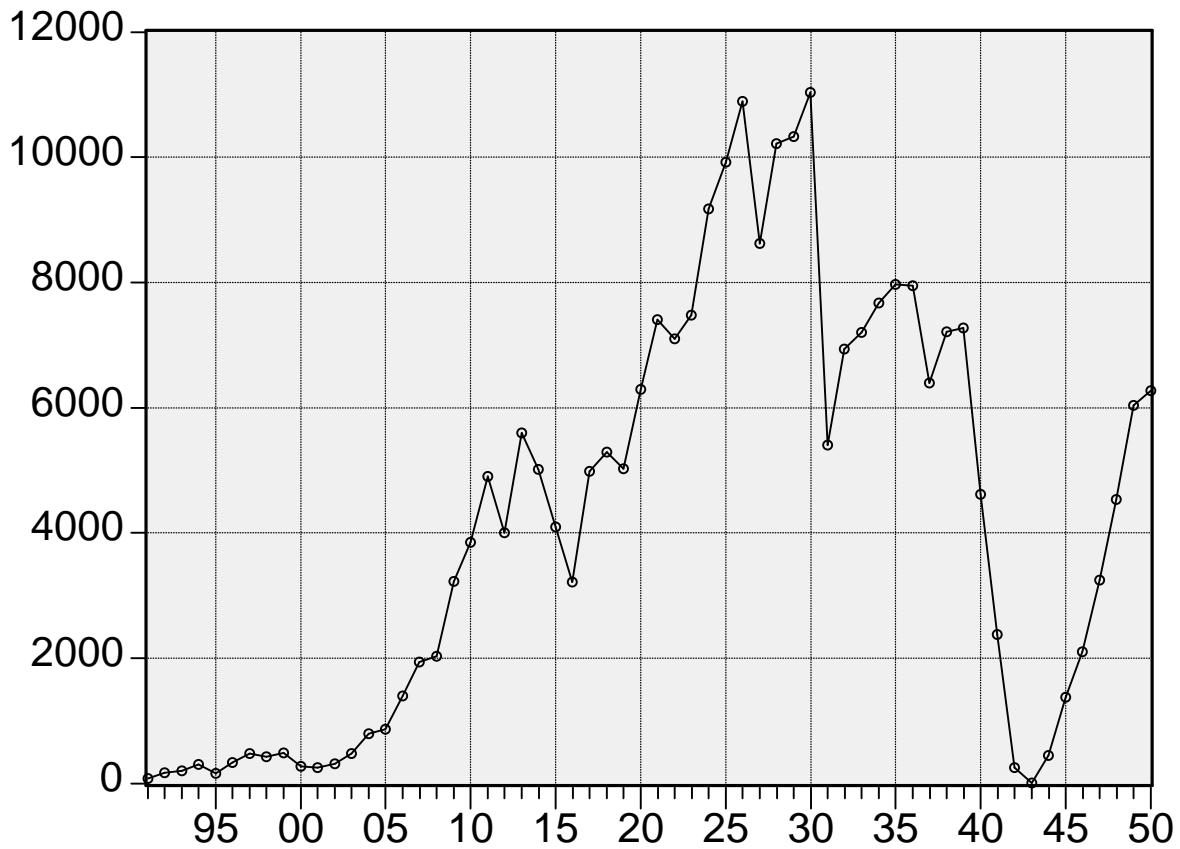
SOURCE:TABLE 6.

coffee boom that Colombia experienced from 1910 to 1950 .Through its macroeconomic impact, coffee crowded out almost all other exports, to the point that by 1950 coffee exports represented 78% of the total exports of the country.

This situation, in which a boom in a primary export adversely affects the output and income of the rest of the tradables sector, is known in the international economics literature as "Dutch Disease".[33] In the next sections I will show that it was this factor that led to the downfall of banana exports in the Colombian Caribbean in the first half of the twentieth century. It was a particularly negative influence for the economic development of this region of Colombia since bananas constituted the bulk of its exports. For example, in 1916, which was an atypical year (as a result of the war, banana exports had fallen and cattle exports had increased), bananas represented 57% of the total exports of the Colombian Caribbean.

Furthermore, in the period in which banana exports were growing , that is from 1891 to 1930, their impact on the economy of the northern Coast of Colombia had been very positive. A document written in the 1920´s by the United Fruit Company expressed this very graphically : "In 1882 when construction of the Santa Marta Railway was commenced, the city of Santa

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[32] Catherine LeGrand,OP.CIT.,p.217.
[33] The discovery of natural gas in Holland in the 1960´s led to an export boom which reduced the competitiveness of Dutch industry as a result of the exchange rate appreciation that was generated.

Marta had a population of a few thousands, with practically no commerce or any industry. It was simply the seat of government of the state of Magdalena. In fact, it is notorious that for many years later and until the banana industry began to grow, old colonial buildings in Santa Marta were torn down and the materials, that is, bricks, hard woods, timbers, and bars, transported to Barranquilla, which in the meantime had begun to assume importance as a port of entry. Cienaga, formerly known as San Juan de Córdoba, was simply a fishing village of a few shacks."[34]

The rapid growth of the population of the Zona Bananera (concentrated in the towns of Ciénaga, Aracataca, and Fundación) between the census of 1905 and that of 1951, reflects the enormous impact of banana exports on the regional economy (see Table 8). While the annual rate of population growth for Colombia for the period 1905-1951 was 2.0%, the Zona Bananera had a rate of growth of 3.8%.

The direct employment effect of the banana exports was very significant. In 1921, in the Santa Marta Railway there were 998 persons employed. According to Judith White, by 1928 around 30.000 laborers were directly

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[34] "Development of the Banana Industry in Colombia", Edwin Walter Kemmerer Papers, Box 113, Princeton University Manuscript Library, p. 2.

TABLE 7
COLOMBIAN EXPORTS OF BANANAS
(Pesos)

Year	Caribbean Region	Other Regions	Total
1906	484.775	0	484.775
1907	704.634	0	704.634
1908	712.098	0	712.098
1909	1.227.174	0	1.227.174
1910	1.668.178	0	1.668.178
1911	2.172.000	0	2.172.000
1912	1.996.999	0	1.996.999
1913	3.059.867	0	3.059.867
1914	2.987.968	0	2.987.968
1915	1.997.140	0	1.997.140
1916	1.572.465	0	1.572.465
1917	2.695.365	0	2.695.365
1918	2.447.628	0	2.447.628
1919	2.215.369	0	2.215.369
1920	NA	NA	NA
1921	NA	NA	NA
1922	3.572.047	0	3.572.047
1923	3.704.002	0	3.704.002
1924	4.453.540	0	4.453.540
1925	5.563.468	0	5.563.468
1926	5.301.609	0	5.301.609
1927	5.475.218	0	5.475.218
1928	8.635.854	0	8.635.854
1929	8.850.266	0	8.850.266
1930	8.740.667	0	8.740.667
1931	4.857.598	0	4.857.598
1932	6.007.273	0	6.007.273
1933	4.907.975	0	4.907.975
1934	6.124.238	0	6.124.238
1935	8.939.249	24.152	8.939.249
1936	8.206.675	116.648	8.206.675
1937	6.983.457	78.780	6.983.457
1938	8.883.871	116.408	8.883.871
1939	8.678.583	123.555	8.678.583
1940	5.609.752	160.217	5.609.752
1941	2.923.702	123.156	2.923.702
1942	284.006	1.520	284.006
1943	132	0	132
1944	498.264	15.780	498.264
1945	1.947.797	17.095	1.947.797
1946	3.913.785	2.820	3.913.785
1947	7.912.797	48.530	7.912.797
1948	10.623.738	150.345	10.623.738
1949	16.847.415	513.558	16.847.415
1950	18.679.253	348.621	18.679.253

Source: The value of total exports from, Anuarios de comercio exterior, several years. For the calculation of the Caribbean and other regions I applied the same participation they had in the number of stems exported of Table 6.

employed in the banana business in the area of Santa Marta and the <u>Zona Bananera</u>, which represented 34% of the population of the area.[35]

The historian Eduardo Posada Carbó has highlighted that the traditional view of the impact of the United Fruit Company on the Colombian Caribbean has emphasized the enclave nature of its operation, failing to appreciate its large influence on the region.[36] The presence of foreign capital, the direct and indirect employment it generated, the development of the transport infrastructure and health facilities, were all positive influences of the banana industry on the economy of the northern coast of Colombia.

Still, it can be argued that bananas are one of the staples with most limited linkage effects. For example, during the period under analysis it was shipped on the stem, making it one of the exports with the smallest added post-harvest value.[37] However, I am not interested in this paper in a discussion of the nature of the linkage effects of bananas. Even if we accepted that its linkages with the rest of the economy were identical to those of other staples, say coffee, which is generally characterized as having strong linkages, the rate of growth of the banana exports from the Colombian Caribbean was so low that it made the region´s economy fall behind the rest of Colombia.

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[35] Judith White, <u>Historia de una ignominia: la United Fruit en Colombia</u>, Editorial Presencia, Bogota, 1978, p. 43.
[36] Eduardo Posada Carbó, <u>The Colombian Caribbean: A Regional History, 1870-1950</u>, Clarendon Press, Oxford, 1996, p. 212.

From 1905 to 1950 the annual average rate of growth of banana exports, the main export of the Colombian Caribbean, was 0.8%. In contrast, in the same period, coffee exports grew at an average annual rate of 6.1%. Thus, quite apart from the possible differences in the linkage effects between these two staples, the enormous differences in their rates of growth led to significant contrast between the rate of expansion of the coffee producing interior and the banana exporting Caribbean Coast.[38]

The rate of population growth of the Colombian Caribbean in the period 1905-1951 was 2.8%. Thus, in per-capita terms its bananas exports had an average rate of growth of -2.0%. In contrast, in the same period the rest of the country had a population rate of growth of 2.0%. As a result its per-capita exports of coffee grew at an average annual rate of 4.1%.[39] The reason for this disparity in the rates of export growth between the Caribbean Coast and the interior of the country was the negative macroeconomic externality that the booming coffee sector produced for the rest of the country's exports, through the revaluation of the real exchange, as we shall see in the next sections.

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[37] Albert O. Hirschman, Essays in Trespassing, Economics to Politics and Beyond, Cambridge University Press, USA, 1981, p. 73.
[38] Still in 1950 bananas represented 46% of total exports from the Colombian Caribbean.

TABLE 8
POPULATION OF SANTA MARTA AND THE ZONA BANANERA
(1905 - 1951)

	1905	1918	1928	1951	Annual rate of growth from 1905 to 1951
Santa Marta	9.568	18.040	30.942	47.354	3,5
Zona Bananera	14.610	26.414	57.630	82.043	3,8
Total	24.178	44.454	88.572	129.397	3,7

Nota : The Zona Bananera was comprised by the municipios of Cienaga, Aracataca,and Fundación.

Source: National Census of 1905, 1918, 1928, and 1951.

III. **DUTCH DISEASE: THE BASIC MODEL**

Dutch Disease refers to the situation in which a booming export sector increases the prices of non-tradeable goods and services, thus hurting the rest of the tradable goods sector.[40] The standard theoretical reference on Dutch Disease are the models developed by W.M.Corden and J.Peter Neary in 1982.[41] In the following discussion I will use their basic model.

The basic Corden and Neary model is one of a small open economy which produces three goods: two which are are traded at exogenously given international prices, and a third, which is a non-traded good whose price is determined by domestic supply and demand .

The traded goods sector includes a booming good (Xbt), and a non-booming one (Xnb). The non-traded good is assumed to be produced by a services sector (Xnt).

The basic assumptions of the model are:

(1) all goods are for final consumption

(2) only relative prices are determined

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[39] In 1950 coffee exports represented 78% of Colombian exports.

[40] Apparently the first time that the term Dutch Disease was used was in 1977 in an article published in The Economist of November 26, 1977, W.M.Corden,"Booming Sector and Dutch Disease Economics: Survey and Consolidation", Oxford Economic Papers, 36,1984, p.359.

[41] W.M.Corden and J.Peter Neary, "Booming Sector and De-Industrialization in a Small Open Economy", The Economic Journal, 92, December, 1982.

(3) national output and expenditure are always equal, so that trade is always balanced

(4) There are no distortions in the commodity and factors markets

(5) Each sector uses a single specific factor, as well as labor, which is perfectly mobile.

Given these assumptions, what will be the effect of a boom in exports (Xbt) as a result of a Hicks-neutral technological change? In answering this question, Corden and Neary introduce a distinction between a resource movement effect and a spending effect.

The resource movement effect comes about because of the increase in the marginal product of the mobile factor, labor, as a result of the boom. Thus, resources are pulled away from the non-tradable sector (Xnt) and the non-booming tradable sector (Xnb) into the booming tradable sector (Xbt). This factor movement leads to an increase in the price of non-traded goods. Since the prices of tradables are exogenously determined in world markets, the rise in the prices of non-tradables is equivalent to an appreciation of the real exchange rate.

The spending effect refers to the impact of spending generated as a result of the increase in real income brought about by the boom. This extra spending raises the price of non-tradables, resulting in a further appreciation of the real exchange rate.

In Illustration 1, the spending and resource movement effects of a boom on the level of employment can be clearly appreciated. The total labor supply is given by the distance from Ont to Ot. The amount of labor employed in the non-tradables sector is measured from Ont to the right, while the amount of labor employed in the non-booming tradables is given by the distance from Ot to the left. The distance from the intersection between Lnt and Lbt and Lnbt, gives us the amount of labor employed in the booming sector.

The Lnt curve represents the demand for labor of the services sector, while the Lnbt curve is the labor demand in non-booming tradables. The Lbt curve is the sum of labor demand in the booming and non-booming tradables sector.

What happens when there is a boom in the form of a Hicks-neutral technological change ? One of the first impacts will be a resource movement effect. The Lbt curve will shift to L´bt, as a result of the increase in exports in the booming tradables sector, which implies an additional need for labor. In Illustration 1 this means a movement from point A to B. In B there is less employment in the non-tradables and non-booming tradables sectors. This fall in employment and output of the non-booming tradables is refered to by Corden and Neary as direct deindustrialization (assuming the boom occurs in the primary sector of the tradables, for example, energy) .

The spending effect can be clearly seen if it is assumed that the energy sector does not use any labor, thus eliminating any resource movement effect. If the demand for non-tradables rises with income, that is, if they are normal goods in the aggregate, the boom will imply a shift from Lnt to L´nt. Thus at the initial exchange rate there is an excess demand for non-tradables and the real exchange rate must appreciate.

When the net effect of the spending and the resource movement effects is combined we have the following results:

(1) the real exchange rate appreciates, since both effects contribute to lower it. In turn this revaluation leads to what Corden and Neary call indirect de-industrialization.

(2) the production of manufactures (non-booming tradables) unambiguously falls.

(3) the output of the services sector (non-tradables) rises because of the spending effect, but falls because of the resource movement effect . The net result is ambiguous.

(4) in the booming tradables sector the resource movement effect tends to increase output but the spending effect to lower it, thus the final result is ambiguous

(5) net exports of the non-booming tradables sector fall, since output falls while domestic demand increases, provided the non-booming tradables are normal goods.

The above discussion can be synthesized in four hypothesis of what we should observe in an economy undergoing Dutch Disease:

(1) the real exchange rate appreciates

(2) there is a decline in exports of the non-booming sector

(3) there is a decline in the output of the non-booming tradables sector

(4) there is a likely increase in the production of the non-traded good

It is important to emphasize that although Dutch Disease is generally associated with deindustrialization, this may not be the case in an economy in the initial stages of development. In this case, most of the tradables sector is comprised not by manufacturing but by agriculture. Thus, the reduction in the non-booming tradables sector will result in a deagriculturalization, rather than the deindustrialization that tends to occur in more industrialized economies.[42]

Finally, it should also be noted that the effects of Dutch Disease discussed above have to be superimposed on the general trends of the economy. Thus, a decline in a sector does not necessarily refer to an absolute fall in

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[42] Corden,OP.CIT.,p.363.

production but to a rate of growth lower than the one that would have prevailed in the absence of the boom.

IV. **DUTCH DISEASE AND THE DECLINE OF BANANA EXPORTS FROM THE COLOMBIAN CARIBBEAN, 1910-1950**

In this section I will show that the conventional explanation for the decline of banana exports from the Colombian Caribbean, based on the negative effects of the sigatoka disease, labor conflicts, and the impact of World War II, is completly inadequate. Part of the problem is that traditional treatments of this topic have studied the evolution of banana exports by analyzing absolute levels of production. However, when the relative participation of bananas in total exports is considered, it is clear that their decline began in the early 1910´s.

From 1910 to 1950 the share of bananas in total Colombian exports shows a downward trend (see Graph 2). While in 1911 banana exports from the Colombian Caribbean represented 9.7% of total exports, by 1950 they had fallen to 2.4%.

Banana exports lost ground in Colombia because of the coffee boom that began in the first decade of this century and lasted until the mid-1950´s. Though, the value of banana exports in real terms grew at an average annual

GRAFICO 2
PARTICIPACION DE LAS EXPORTACIONES DE
BANANO DEL CARIBE COLOMBIANO EN EL
TOTAL DE LAS EXPORTACIONES COLOMBIANAS
(1905-1950)
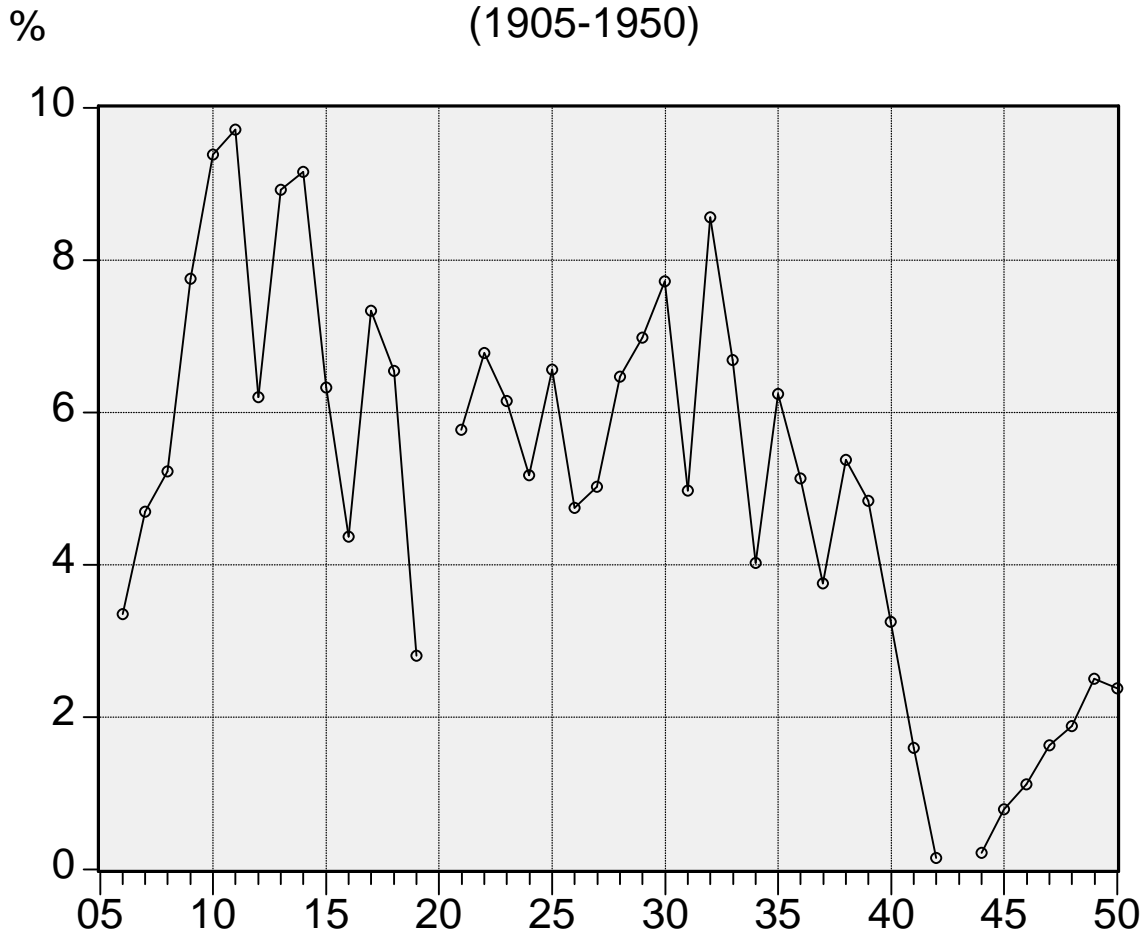
FUENTE: TABLA 10.

rate of 7.2% between 1910 and 1930, it was still below the 10.5% average annual rate of growth of coffee exports in the same period. Thus, in relative terms banana exports were losing ground.

A. **Dutch Disease in Colombia,1910-1950**

The enormous increase in Colombian coffee exports between 1905 and the late 1940´s, implied that by 1950 it was the second producer of coffee in the world. While in 1905 it participated with 3.8% of total world exports of coffee, by 1943 it had increased its share to 20.4%.[43] This enormous expansion of coffee exports , led to the changes associated with Dutch Disease.[44]

In the previous section I pointed out that the Dutch Disease model predicts four consequences of the boom. It will now be seen that they were all present in Colombia in the period 1910-1950.

Hypothesis 1 : Revaluation of the Real Exchange Rate

Between 1917 and 1950 the real exchange rate of the Colombian peso with respect to the US dollar followed a revaluation trend, interrupted between

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[43] Robert Beyer , "The Colombian Coffee Industry: Origins and Major Trends, 1740-1940",Ph.D. Dissertation, University of Minnesota, 1947, p. 234.

[44] This has not been the only case in which a boom in coffee exports has led to Dutch Disease symptoms in the Colombian economy. From 1975 to 1980, the international price of coffee increased abruptly as a result of freezing temperatures in Brazil which destroyed a large part of the coffe crop and reduced the production capacity of that country. Linda Kamas has shown that most of the conditions associated with Dutch Disease were present in Colombia from 1975 to the early 1980´s, Linda Kamas, "Dutch Disease Economics and the Colombian Export Boom", World Development, Vol. 14, No. 9, 1986.

1931 and 1935 by the effects of the Great Depression (see Table 9 and Graph 3).

A devaluation, in real terms, of the peso occurred in the period 1931-1935, in the context of the enormous fall in demand brought about by the Great Depression. In the case of bananas, the reduction in demand was dramatic. Between 1929 and 1932 the number of stems imported into the US dropped from 65.134.000 to 39.613.000.[45] Therefore, the devaluation of the period 1931-1935, could not contribute to an increase in the exports of bananas: it was merely a compensatory measure, achieved as a result of a devaluation of the nominal exchange and of domestic deflation (see Graph 4).

Thus, the period 1917-1950 was one, all in all, of revaluation of the Colombian peso, interrupted by the anomalous years of the Great Depression.

Hypothesis 2: Decline in the Exports of the Non-Booming Tradables Sector

As a result of the real exchange rate revaluation that occurred in the period 1917-1950, there was a dramatic reduction in the participation of non-coffee exports. While in 1910 coffee exports represented only 31.0% of total exports, by 1950 they had increased to 77.8%. In that last year coffee and petroleum, which was also undergoing a boom, represented 94.2% of total

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[45] Charles D. Kepner, Social Aspects of the Banana Industry, New York, 1936, p.69.

GRAPH 3
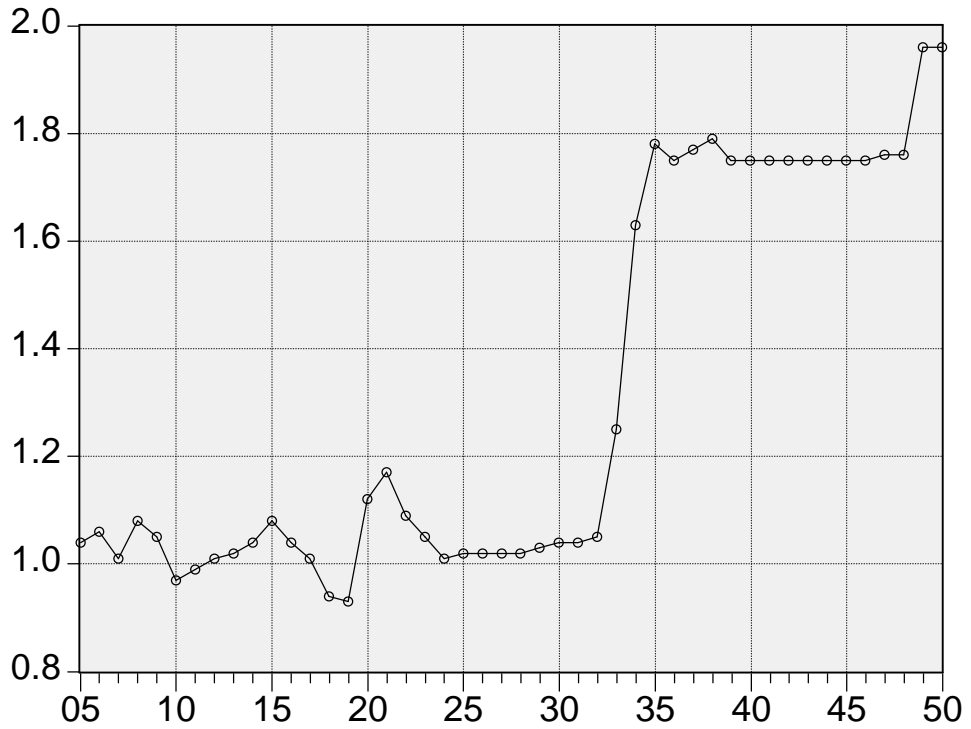## COLOMBIAN REAL EXCHANGE RATE
(1905-1950)

1927=100
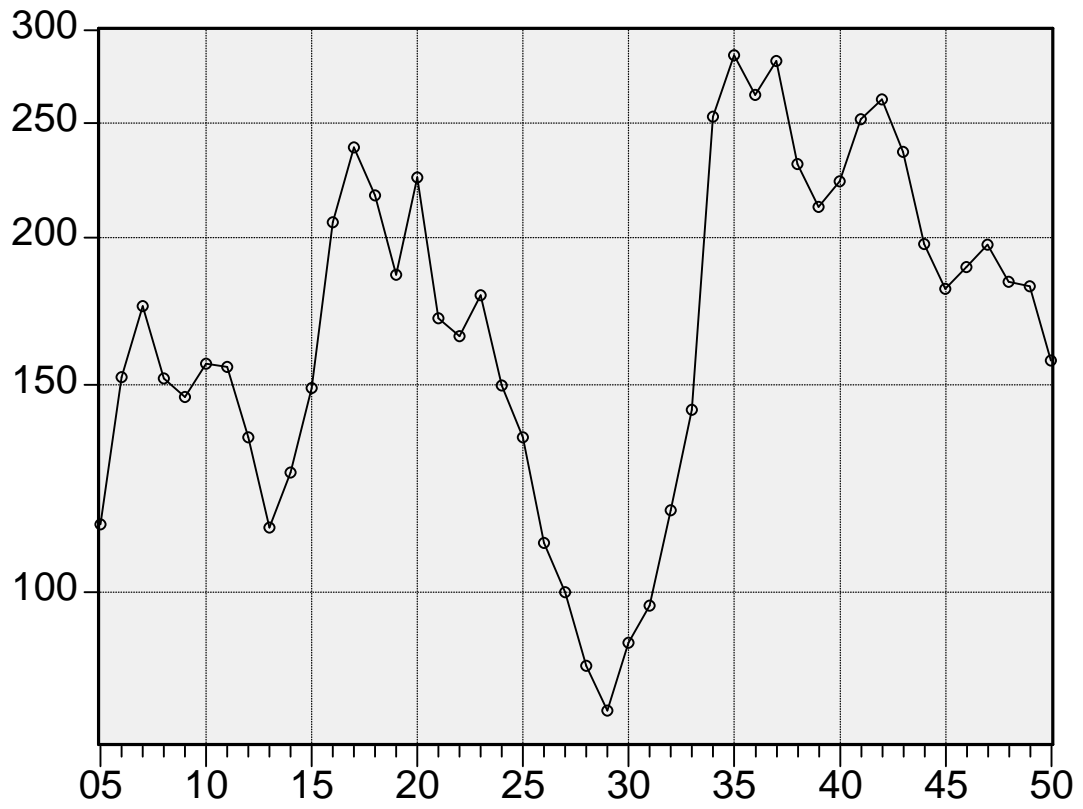
SOURCE: TABLE 10.

TABLE 9
PARTICIPATION OF BANANA EXPORTS
FROM THE CARIBBEAN COAST
IN TOTAL COLOMBIAN EXPORTS

Year	(%)
1906	3,3
1907	4,7
1908	5,2
1909	7,7
1910	9,4
1911	9,7
1912	4,2
1913	8,9
1914	9,1
1915	6,3
1916	4,4
1917	7,3
1918	6,5
1919	2,8
1920	NA
1921	5,8
1922	6,8
1923	6,1
1924	5,2
1925	6,5
1926	4,7
1927	5,0
1928	6,5
1929	7,0
1930	7,7
1931	5,0
1932	8,5
1933	6,7
1934	4,0
1935	6,2
1936	5,1
1937	3,7
1938	5,4
1939	4,8
1940	3,2
1941	1,6
1942	0,1
1943	NA
1944	0,2
1945	0,8
1946	1,1
1947	1,6
1948	1,9
1949	2,5
1950	2,4

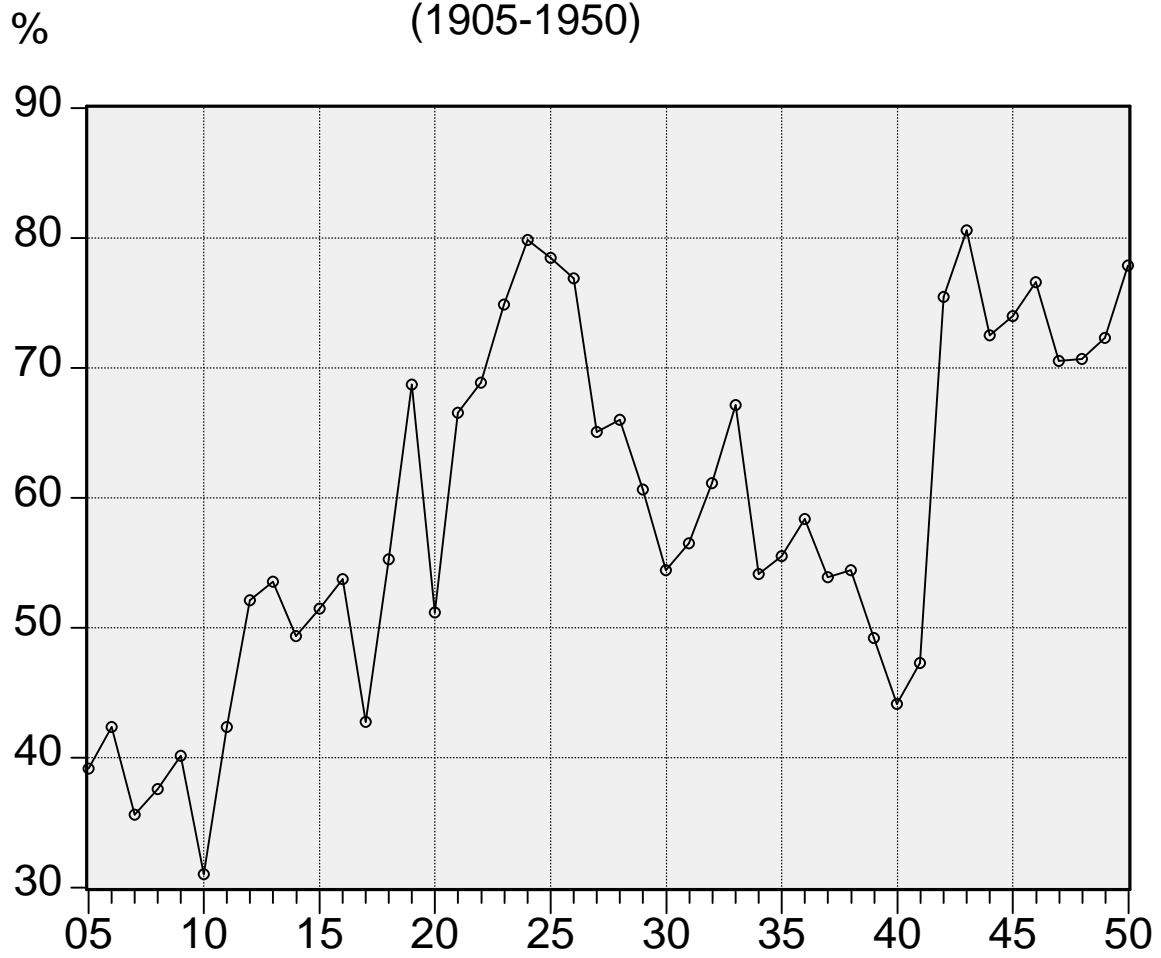*Source:* Revista del Banco de la República, several numbers.

GRAPH 4
NOMINAL EXCHANGE RATE OF THE
COLOMBIAN PESO WITH RESPECT
TO THE US DOLLAR, 1905-1950

pesos per dollar

SOURCE: REVISTA DEL BANCO DE LA REPUBLICA,
various issues.

GRAFICO 5
PARTICIPACION DEL CAFE EN LAS
EXPORTACIONES TOTALES DE COLOMBIA
(1905-1950)

FUENTE:TABLA 11.

TABLE 10
COLOMBIAN REAL EXCHANGE RATE
(1927 = 100)

Year	
1905	114,12
1906	152,25
1907	174,95
1908	151,89
1909	146,35
1910	156,31
1911	155,29
1912	135,40
1913	113,53
1914	126,39
1915	148,97
1916	205,99
1917	238,62
1918	217,09
1919	185,95
1920	224,76
1921	170,80
1922	164,85
1923	178,58
1924	149,77
1925	135,29
1926	110,09
1927	100,00
1928	86,59
1929	79,32
1930	90,64
1931	97,37
1932	117,40
1933	142,83
1934	253,29
1935	285,62
1936	264,38
1937	282,34
1938	230,80
1939	212,35
1940	223,15
1941	251,98
1942	261,79
1943	236,26
1944	197,35
1945	180,87
1946	188,74
1947	197,20
1948	183,35
1949	181,90
1950	157,35

Note: The foreign price index used to calculate the real exchange rate is the US whole sale price index; the domestic price index used is: from 1905 to 1922 the one calculated by Alberto Pardo Geografía económica y humana de Colombia Ediciones Tercer Mundo, Bogotá, 1972, p. 221; from 1923 to 1937, the price index for 15 articles of consumption calculated by the Banco de la República, Revista del Banco de la República several numbers; from 1938 to 1950, the cost of living in Bogotá Revista del Banco de la República, several numbers.

TABLE 11
PARTICIPATION OF COFFEE IN TOTAL VALUE OF
COLOMBIAN EXPORTS

Year	(%)
1905	39,2
1906	42,3
1907	35,6
1908	37,6
1909	40,1
1910	31,0
1911	42,3
1912	52,1
1913	53,5
1914	49,3
1915	51,5
1916	53,7
1917	42,7
1918	55,2
1919	68,7
1920	51,2
1921	66,5
1922	68,8
1923	74,8
1924	79,8
1925	78,4
1926	76,9
1927	65,0
1928	66,0
1929	60,6
1930	54,4
1931	56,5
1932	61,1
1933	67,1
1934	54,1
1935	55,5
1936	58,3
1937	53,8
1938	54,4
1939	49,2
1940	44,1
1941	47,3
1942	75,4
1943	80,5
1944	72,5
1945	74,0
1946	76,6
1947	70,5
1948	70,7
1949	72,3
1950	77,8

Source: Revista del Banco de la República various issues.

Colombian exports. Thus, in the period 1910-1950 the country experienced a dediversification of exports.

Graph 5 and Table 11, show that the share of coffee exports increased from 31.0% in 1910 to 79.8% in 1924. In the following years that participation dropped because of a boom in exports from the mining sector (gold, platinum, and petroleum). After 1940 the share of coffee increased again. As a result, by 1950 all other exports had been crowded out, with the exception of petroleum, which was also experiencing a boom.

The decline in exports of the non-booming tradables sector is well illustrated by the fact that all of the ten main exports of the first half of the twentieth century, except coffee, experienced rates of growth below the rate of growth of total exports (see Table 12). In fact, five of them had negative rates of growth and only one, platinum, had a rate of growth which surpassed the rate of population growth.

Hypothesis 3: Decline in the Output of the Non-Booming Tradables Sector

As explained above, the consequences of Dutch Disease must be superimposed on the general trends of the economy. Thus, in a growth scenario, a decline must be interpreted as a fall in the size of a sector. Table 13, shows that the non-booming tradables sector in Colombia grew at a rate

TABLE 12
AVERAGE ANNUAL RATE OF GROWTH OF THE
MAIN COLOMBIAN EXPORTS IN REAL TERMS
(1905 - 1950)

Products	Rate of growth
Coffee	6,1
Platinum	2,4
Petroleum	1,2
Bananas	0,8
Gold	0,6
Hides	-1,7
Tobbacco	-3,8
Rubber	-5,8
Hats	-7,2
Tagua Wood	-13,5
Total Exports	4,9

Source: Revista del Banco de la República, several
issues and calculations by the author.

TABLE 13
RATES OF GROWTH OF COLOMBIAN GROSS DOMESTIC PRODUCT
(1925 - 1949)

Sector	Rate of growth (%)
Non - Tradables:	4,4
Construction	5,8
Residential rent	2,1
Government services	3,1
Personal services, commerce, and banking	4,7
Energy and communications	7,7
Artisan manufacturing	5,8
Non - Booming tradables:	3,5
Non - Coffee farming	2,5
Manufacturing	7,7
Booming tradables	4,0
Coffee agriculture	4,0
Mining	4,0
Total	3,9

Note: To calculate non - coffee farming we assumed that coffee production was 15%
of total agriculture in 1925 and that it increased its participation at a constant
rate, to achieve a 20% participation in 1950.

Source: Banco de la República, Principales indicadores económicos, 1923-1992,
Bogotá, 1993, p. 150, and calculations of the author.

which was below the rate of growth of the Gross Domestic Product (GDP), as well as below the rate of growth of the non-tradables and the coffee sector.

It should be mentioned that within the the non-booming tradables, the manufacturing sector grew at a higher rate than both the booming tradables and total GDP. There are several explanations for this apparent anomaly. First, the manufacturing sector includes non-tradables, for example the cement industry. [46] Second, the expansion of the manufacturing sector was, in part, induced by policies designed to foster import substituting industrialization in the 1930´s and 1940´s, such as tariffs and quantitative restrictions on imports of manufactured goods, and subsidized loans.

Hypothesis 4: A Likely Increase in the Production of the Non-Tradables Sector

The non-tradables sector experienced an annual average rate of growth of 4.4% between 1925 and 1950. Thus, it surpassed both the booming tradables and the non-booming tradables, which grew at rates of 4.0% and 3.5%, respectively.

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[46] Corden and Neary, OP.CIT., p.842.

B. **The Relative Decline of Banana Exports, 1910-1950**

In the last section I showed that the basic symptoms of Dutch Disease were clearly present in Colombia in the period 1910-1950. I will now show that the relative decline of bananas exports in this period was one of its consequences.

The negative impact of the coffee boom on the production of bananas was mainly felt through the exchange rate, which directly affected the profitability of the business, since almost 100% of the harvest was exported.

The real exchange rate of the Colombian peso with respect to the US dollar in this period was fundamentally determined by the real international price of Colombian coffee, with which it had an inverse relationship, as can be seen in Graph 6. From 1905 to 1950, the correlation coefficient between the real international price of Colombian coffee and the real exchange rate was -.66. The level of profitability of the banana industry, or for that matter of any sector that exports 100% of its output, can be proxied by the international price of the product converted into the local currency and divided by an appropriate domestic price index:
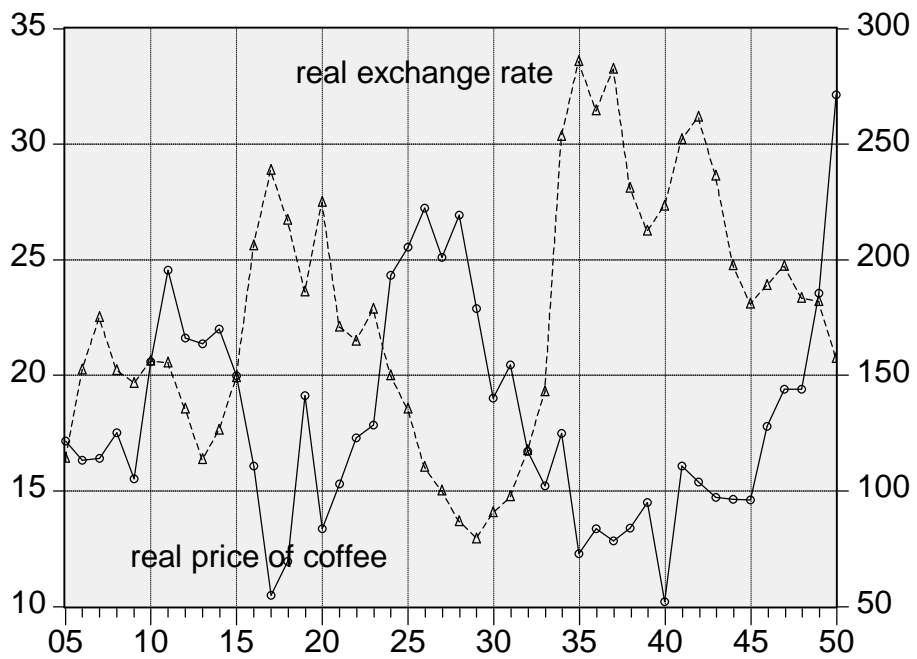
$$PR=(PB)(NER)/(DPI)$$

The price, in turn, can be decomposed into the real exchange rate and the real international price of the product:

$$PR=(PB/FPI)*(NER*FPI)/(DPI)$$

GRAPH 6
EVOLUTION OF THE REAL PRICE OF COLOMBIAN
COFFEE IN WORLD MARKETS AND THE REAL
EXCHANGE RATE, 1905-1950

real
price
of coffee

real
exchange
rate

real exchange rate

real price of coffee

SOURCE: TABLE 10 for the real exchange rate;
for the price of coffee, Revista del Banco de la
Republica, and Beyer,OP.CIT.,pp.355-357.

RPB=(PB/FPI)

RER=(NER*FPI)/(DPI)

Where:

PR= real price of bananas in domestic currency

PB = international price of bananas in foreign currency

NER= nominal exchange rate

DPI = domestic price index

FPI = foreign price index

RPB= real price of bananas in foreign currency

RER= real exchange rate

The real price of bananas in pesos followed a downward trend in the period 1910-1950, which was interrupted only by the Great Depression. The increase in the real price of bananas in the period 1931-1934 did not stimulate production, since it coincided with an enormous fall in foreign demand for bananas, which led to a fall in exports.

From 1910 to 1930 the real price of bananas in pesos declined at an average annual rate of -1.1. In the period 1935-1950, the annual rate of decline was higher, -3.7%.

The evolution of the real price of bananas in pesos in the period 1905-1950 was determined almost completely by the behavior of the real exchange rate (see Graph 7). The correlation coefficient between these two variables from

GRAPH 7
EVOLUTION OF THE REAL FOREIGN PRICE
OF BANANAS IN CONSTANT PESOS AND OF
THE REAL EXCHANGE RATE, 1905-1950

1927=100

real
exchange rate

real foreign price of bananas
in constant pesos
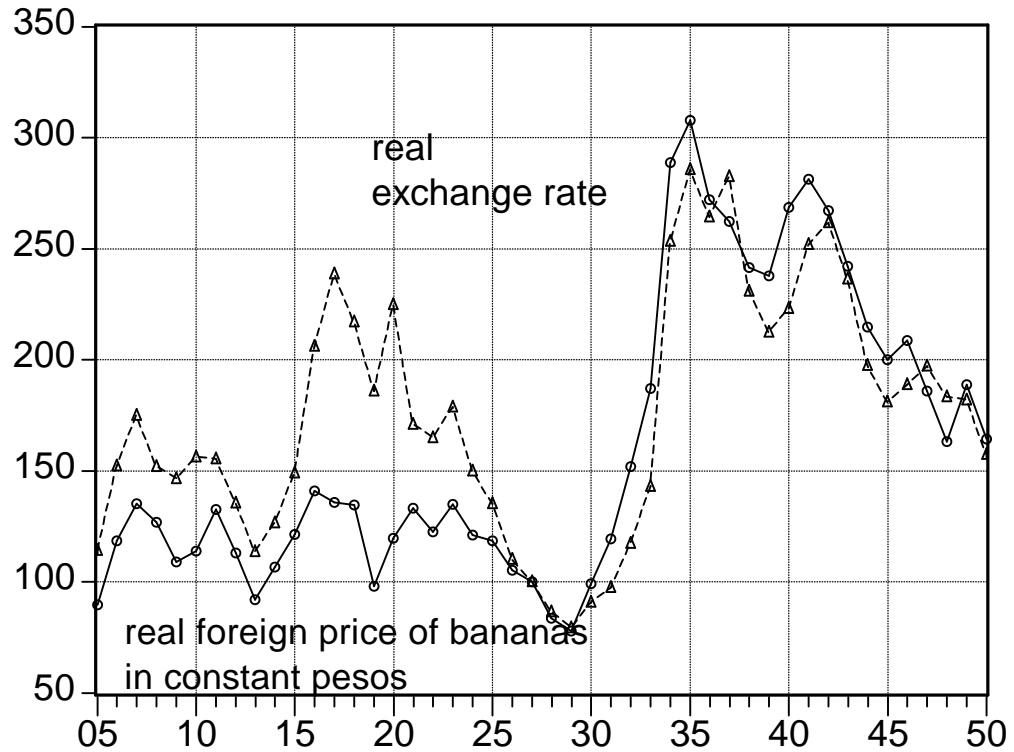
SOURCE: TABLE 14 and TABLE 10.

TABLE 14
FOREIGN PRICE OF BANANAS IN CONSTANT PESOS
(1927 = 100)

Year	
1905	89,7
1906	118,5
1907	135,1
1908	126,8
1909	108,9
1910	113,9
1911	132,6
1912	112,9
1913	92,0
1914	106,6
1915	121,3
1916	141,1
1917	135,7
1918	134,5
1919	98,0
1920	119,7
1921	133,2
1922	122,6
1923	134,9
1924	121,0
1925	118,4
1926	105,1
1927	100,0
1928	83,6
1929	77,9
1930	99,1
1931	119,4
1932	151,8
1933	187,0
1934	288,7
1935	307,8
1936	272,2
1937	262,2
1938	241,5
1939	237,7
1940	268,5
1941	281,3
1942	267,0
1943	242,0
1944	214,7
1945	200,1
1946	208,7
1947	185,8
1948	163,1
1949	188,7
1950	164,2

Note: The foreign price of bananas in constant pesos was calculated converting into
pesos the foreign price and deflating it by the Colombian price index used in
Table 10.

Source: For the Colombian nominal exchange rate Revista del Banco de la Repú-
blica, several numbers; for the Colombia price index the same as in Table
for the price of bananas in the international market, Miguel Urrutia (editor),
Long - Term Trends in Latin American Economic Developme, Inter-American
Development Bank, Washington, D.C., 1991, Table B-1.

1905 to 1950 was .83. The only subperiod in which their behavior varied somewhat was 1916-1924, when the real price of bananas in dollars fell (1916 - 1920) and then rose (1920 - 1924). If we exclude this subperiod , the correlation coefficient between the real price of bananas in pesos and the real exchange rate increases to .94.

It was, thus, the downward trend in the real price of bananas in pesos from 1910 to 1950, caused by the real exchange rate appreciation brought about by the coffee boom, that led to the loss of participation of bananas in total exports. This relative decline began long before the labor conflicts of the late 1920´s and the spread of sigatoka in the late 1930´s. Thus, banana exports were one of the victims of Dutch Disease that Colombia experienced in the first half of the twentieth century.

V. **CONCLUSIONS**

In this paper we have seen how the rapid growth of coffee exports in Colombia in the initial decades of this century led to a squeezing out of the exports of other primary products, including bananas. Since bananas constituted the main export of the Colombian Caribbean, their decline resulted in a lack of dynamism of the exports of that region. In 1950,

bananas still represented 53.3% of total exports from the Caribbean Coast, followed by petroleum (15.7%), tobacco (11.7%), and cattle 7.4%.

Coffee production was concentrated almost completely in the interior regions of Colombia. For example, in 1925 the Caribbean Coast participated with only 0.8% of total exports of coffee.[47] Thus, the crowding out of other exports through the real revaluation of the peso had an enormous impact on the regional distribution of income. In particular, the Caribbean region began to lag behind the rest of the country and its exports per-capita declined. As a result, in the period under discussion its per-capita GDP probably grew at a rate which was below the national one.

The poor performance of the foreign sector of the northern coast of Colombia in the first half of this century had long-term consequences for its economic development prospects. By 1950, its share in total Colombian exports, was only 4.5%, although it had 16.7% of the country´s population. When, in the late 1940´s, the country initiated a deliberate policy of import substituting industrialization through tariffs and quantitative restrictions on industrial imports, multiple exchange rates, subsidized loans, and direct government investment in the industrial sector, the Caribbean Coast was not able to have an active participation in that process. As a result of its much better export

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[47] Joaquin Viloria,"Café Caribe: la economía cafetera en la Sierra Nevada de Santa Marta", Documentos de trabajo sobre economia regional, No. 1, Banco de la Republica, Cartagena, 1997, p.17.

performance in the first half of the century, the interior of the country had experienced a larger accumulation of capital and a consolidation of its internal markets. Thus, in the decades that followed, industrial growth in Colombia was concentrated in the triangle formed by the three main cities: Bogota, Medellin, and Cali. The roots of this development lie in the macroeconomic consequences of the coffee boom experienced by Colombia between 1910 and 1950.