

## Working Paper Number 161

### **Trade Liberalization and Market Access: Analyzing Dominican Export Performance during the Twentieth Century**

Ame R. Bergés\*

*This paper examines the effect of state-led industrialisation, trade liberalisation, economic reform and world demand on the growth and composition of Dominican exports during the twentieth century. This involved construction of long-run time series for the real value, volume and market prices of total exports from 1905-2000, and of FTZ exports from 1976-2000, including disaggregated FTZ exports by commodity group when possible. Despite the common assertion that trade liberalisation has spearheaded export growth and diversification in developing countries, the process in the Dominican Republic has been driven largely by US trade policy, suggesting that trade liberalisation in the developing country cannot guarantee export growth unless it is accompanied by improved market access in the destination market(s). Furthermore, evidence of export diversification in the Dominican Republic is more apparent than real, with sugar continuing to dominate primary exports and FTZs dominating manufactured exports, and low-technology, labour-intensive textile and garment production in particular. At the same time that the composition of FTZ export composition has narrowed, so too have export markets toward the US – despite a sustained fall in the country's share of the US market.*

November 2007

\* Latin American Centre and St Antony's College

## 1 Introduction

Globalisation has been accompanied by optimism that the new opportunities will enable developing countries to trade their way out of poverty.<sup>1</sup> In the smaller economies in Latin America the export sector is often one of the leading sectors because, given the relatively small size of the domestic market and the restrictions imposed on it by unequal income distribution, the export sector is the only one that is not limited by the size of the domestic market.

Trade liberalisation promotes exports by eliminating the strong anti-export biases created by quantitative restrictions and tariffs. For example liberalising tariffs on intermediate inputs for export production eliminates the input tax source of bias, and lowering tariffs on imports of raw materials and capital good inputs for exports improves the competitiveness of the export sector *vis-à-vis* the rest of the world (Milner 1990, p. 89).<sup>2</sup> What has ultimately made this strategy possible is reduced tariff access to otherwise protected OECD and US markets, which is increasingly contingent on reciprocal liberalisation of developing country markets to imports from the US and other OECD countries.

This paper considers the impact that domestic trade policy and the openness of destination markets has on export growth and composition. To this end the Dominican Republic is used as a case study. As noted in the Introduction, the Dominican Republic outperformed all other Latin American countries in terms of export and GDP growth in the 1990s, and its export structure shifted from primary export commodities to resource-based and non-resource-based manufactures.

The paper is organised as follows. Section 2 reviews trade policy in the Dominican Republic throughout the twentieth century, including exchange rate policy and tariff and non-tariff barriers to trade. Trade policies that affected imports and exports are examined in order to establish whether an anti-export bias resulted from these policies. As the US was the country's most important export market and enjoyed strong bargaining power, preferential market access agreements with the US are appraised as well.

Section 3 first assesses the impact of trade policy reforms on export growth and then considers the extent to which trade liberalisation has improved the competitiveness of Dominican exports in terms of gaining an increased share of the US import market, particularly *vis-à-vis* its Caribbean Basin competitors. It also explores the relationship between trade policy reform and the commodity composition of exports. It is concluded

---

<sup>1</sup> UNCTAD (2002).

<sup>2</sup> Policy recommendations in favour of trade liberalisation follow from a particular interpretation of the East Asian 'miracle' that attributed high rates of export and economic growth to a more neutral policy incentive structure (for example, maintaining realistic exchange rates, phasing out quantitative restrictions and reducing the tariff spread on imports and exports, see Balassa (1989), World Bank (1987). The positive association between trade liberalisation and export growth has also been supported more recently by Thomas (1991), Weiss (1992), Joshi (1996), Helleiner (1994), and Ahmed (2000).

that export growth and diversification were rooted in greater market access rather than resulting from more competitive supply conditions, such as lower labour costs. They were made possible by US trade policy changes in the 1980s aimed at improving the competitiveness of US manufacturing firms. In contrast, the literature tends to link export performance to the trade policies of developing countries, with an emphasis on creating more favourable production conditions through the liberalisation of trade and financial markets. However trade liberalisation cannot secure export growth in the absence of market access.

## *2 Trade policy in the Dominican Republic and trade relations with the US*

Export duties and controls, quantitative restrictions on imports, high tariff barriers and overvalued exchange rates are all characteristic of state-led industrialisation drives, particularly in the case of import substitution industrialisation. These instruments have long been regarded as imparting a strong anti-export bias by distorting the price signals to which the private sector responds, discouraging investment in the export sector and reducing export growth. By setting a more realistic (or even undervalued) exchange rate, removing import restrictions (particularly on imported inputs for export production) and reducing or eliminating export duties and taxes, trade liberalisation brings domestic prices into closer alignment with international prices, which encourages export growth by making exports more internationally competitive and facilitating access to cheaper imported inputs. Similarly preferential market access agreements encourage export growth by lowering the cost to consumers of the export products vis-à-vis those of its competitors.

The long run trends in tariff and non-tariff barriers to trade appear to confirm the existence of a strong anti-export bias in the Dominican Republic.<sup>3</sup> As shown in Figure 1, tariffs on imports were generally quite high during the twentieth century and those on exports were substantially lower, except in 1915-35, when they averaged 13.6 per cent, compared with 5.7 per cent for imports. The ratio of import duties to imports fell below the period average only in the 1910s, decreasing from 51 per cent of imports in 1905-9 to just 6 per cent by 1920, and also from the mid 1960s to the early 1980s, reaching 9 per cent of imports by 1984.<sup>4</sup> Thereafter the average import tax rate was increased from an

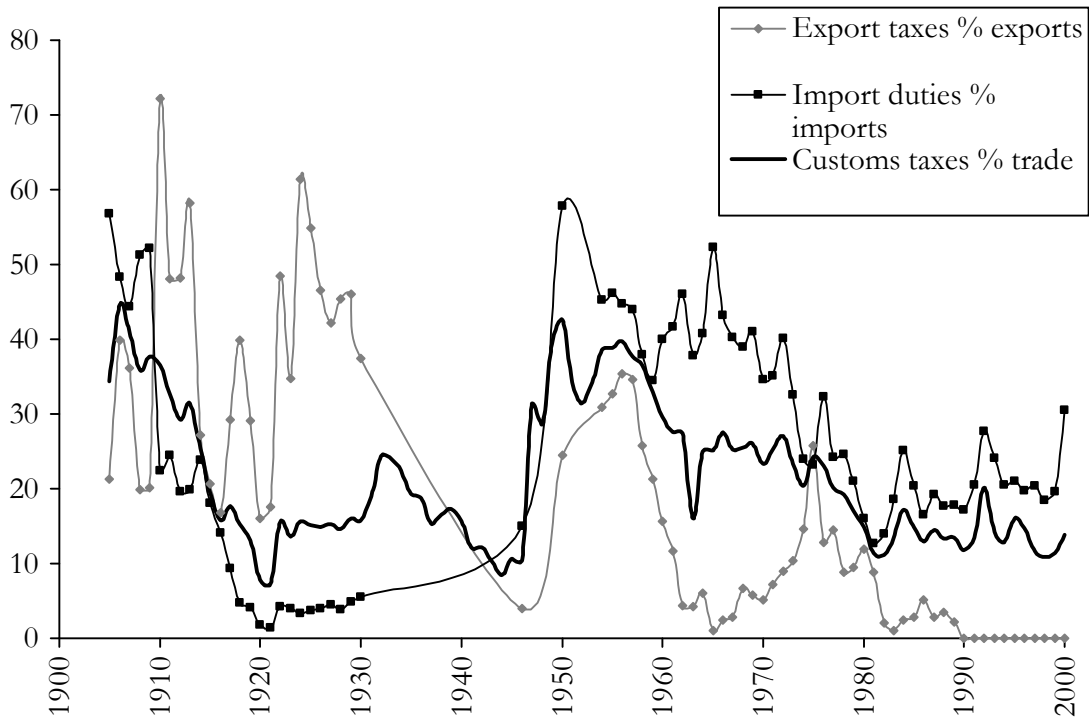
---

<sup>3</sup> The ratio of revenue from export duties to the total value of export goods and the ratio of revenue from import tariffs to the total value of imported goods are used as proxies for tariff and non-tariff protection and for trade policy disincentives to export activities.

<sup>4</sup> This corresponded to the introduction of new tariff laws in 1909 and 1919 by the US customs authority and military government. The US had seized the Dominican customs houses in 1905 following soaring external debt and escalating threats by creditor nations. The US formalised its control over the country's finances in 1907 and occupied the country from 1916-24 on the grounds that the conditions laid down in the 1907 Dominico-American Convention had been violated. On the US customs receivership, see Hollander (1907) pp. 405-426. On the US financial intervention and military occupation, see de la Rosa (1987), Calder (1984), and Welles (1966). Although data on import duties are not available for the 1930s and 1940s, the apparent increase in the import tariff rate in the late 1920s and early 1930s probably reflects a fall in import volume

average of 11 per cent in 1980-84 to 19 per cent in 1995-99 and as high as 30 per cent in 2000 due to the government’s attempt to curb a 500 per cent increase in import volume. The increased ratio of export taxes to exports in the 1950s and from the mid 1960s to the late 1970s reflects the government’s efforts to take advantage of the increase in coffee and cacao export trade, whose prices had experienced compound annual average rates of 22 per cent and 18.3 per cent in 1944-54 respectively.

Figure 1. Evolution of taxes on trade as a percentage of merchandise trade, 1905-2000 (per cent)



Note: Import and export duties interpolated by geometric mean in 1931-45, 1947-9.

Sources: Secretaría de Estado de Tesoro y Comercio (1939) pp. 11, 100-1, (1940) p. 46, (1946) pp. 150, 154, 156-7, 184, (1950) pp. 530-5, (1951) p. 360, (1955) pp. 352, 407-8; JNPC (1963) Table 92, Wilkie (1974) p. 228, ONE (1974) pp. 13-6, (1976) pp. 6, 14-7, (1978) pp. 12-4, (1981) pp. 10-2, (1984) pp. 9-12, ONAPRE (1988) pp. 16-9, (1991) pp. 16-8, (1994) pp. 16-8, (1997) pp. 21-3, (1999) p. 11, BCRD (2000) p. 81.

The period of US occupation (1916-24) also saw a dramatic reduction in non-tariff barriers to trade. However these slowly crept back up in the late 1920s and 1930s as

---

rather than changes to the import-tariff schedule, since under the terms of the US withdrawal in 1924 the 1919 Tariff Law and the structure of public revenues were to remain in place until the country’s debt was retired.

the Dominican government was able to circumvent the prohibition on tariff reform (as dictated by the conditions of the US withdrawal) by introducing licenses, permits and quotas. This was aimed at curbing the foreign exchange losses caused by the volatile world market prices for sugar. Many of the tariff and non-tariff barriers were retained well into the 1970s and 1980s, resulting in high rates of effective protection for many industries, including foodstuffs (374 per cent) and non-metallic furniture (212 per cent) (Table 1). This period also saw the implementation of an export promotion framework. To encourage investment (and especially foreign direct investment) in export production, controls on currency, imports and credit were loosened and the requirement to surrender foreign currency earnings to the Central Bank at the official exchange rate was waived.

Table 1. Rates of nominal and effective protection by industrial sector, 1983 (per cent)

Industrial sector	Nominal Protection				Effective Protection
	Product	Exch. rate effect	Exoneration on inputs	Exch. rate & exoneration on inputs	
Milk-based products	22.0	66.8	16.1	53.8	108.3
Fats and cooking oils	66.3	111.1	9.2	46.9	283.1
Bakery goods	60.0	104.8	27.5	65.3	126.7
Diverse foodstuffs	71.5	116.3	16.3	54.0	374.1
Knitted articles	98.0	135.8	9.4	47.2	199.5
Clothing	52.0	89.8	10.5	48.3	121.4
Non-metallic furniture	70.0	107.8	32.1	69.9	212.2
Paper packing materials	5.0	42.8	26.2	64.0	15.4
Basic steel and iron products	5.0	42.8	9.3	47.1	31.7
Non-electric machinery	14.0	51.8	9.8	47.5	77.3
Electric machinery	7.0	44.8	12.6	50.4	34.0

Source: Moya Pons (1992) Table 15

These reductions in tariff and non-tariff barriers to exports in the 1980s were accompanied by currency devaluation and unification of the exchange rate system. For most of the century the Dominican peso had been pegged to the US dollar at par, but it had increasingly become overvalued. By the early 1970s the price of the US dollar on the parallel market was on average 14 per cent higher than the official rate, and this gap had steadily increased to 27 per cent in 1980-81, 46 per cent in 1982, 60 per cent in 1983 and 183 per cent in 1984, which corresponded to a growing trade deficit from US\$89.8 million in 1975-79 to \$438.8 million in 1980-84. In 1985 the peso was devalued, unified and floated in accordance with the terms of an IMF stabilisation programme. The peso fell to 1.98 per dollar and continued its descent through the late 1980s and early 1990s, falling by 66 per cent in 1988, 38 per cent in 1990 and 42 per cent in 1991. After 1992,

the peso became more stable and depreciation was restricted to 4 per cent per annum, with the peso reaching 16.18 per dollar by 2000. Thereafter however there was a massive depreciation of 238 per cent and by 2003 the peso had fallen to 54 per dollar.<sup>5</sup>

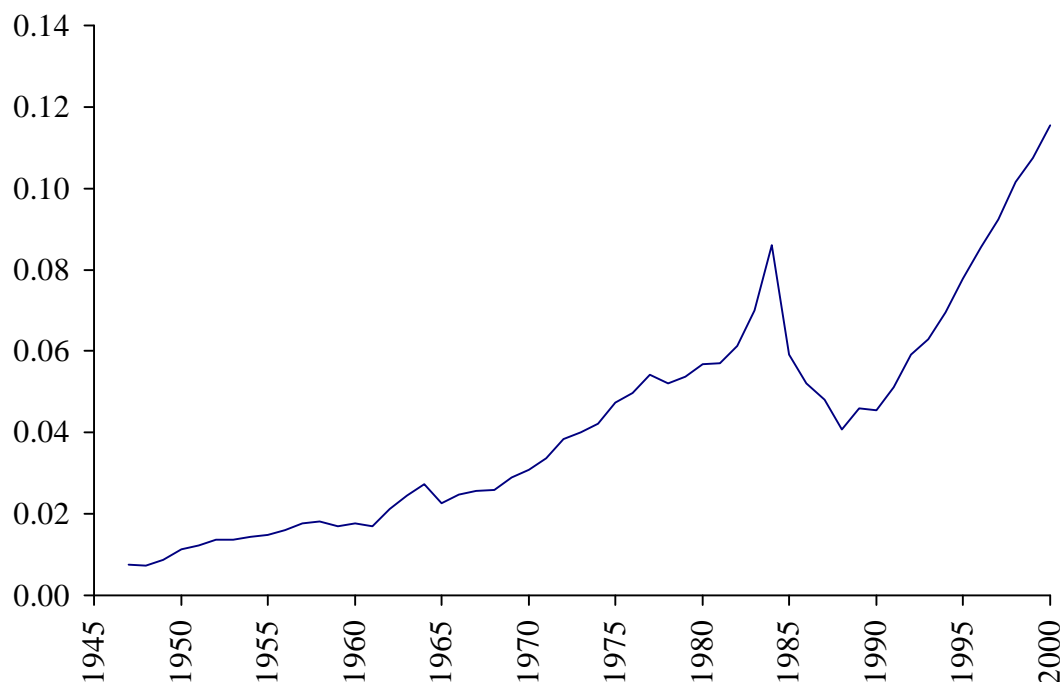
To encourage export processing activities in the free trade zones (FTZs) the monetary authority eased the currency restrictions. Prior to 1992 FTZ firms were required to convert all cash payments for utilities, salaries, taxes and other expenses into the national currency at the official exchange rate, but from 1992-95 they were permitted to convert foreign currency at the private market-based exchange rate administered by the monetary authority, and after 1996 they were able to buy and sell currency on the free market.

The real exchange rate takes into account the difference between domestic and foreign prices. While there is insufficient data on consumer prices in the Dominican Republic prior to 1947 to conduct a longer run analysis, after 1947 there was only one episode of real devaluation. This was in 1984-88, when there was a 52 per cent decline in the peso relative to the dollar (Figure 2). The appreciation of the real exchange rate from 1990 was associated with a delayed and inadequate adjustment of the crawling peg to rising consumer prices.

---

<sup>5</sup> The official and black market exchange rates from 1966 onwards are presented in Table 1A in the Appendix.

Figure 2. Real exchange rate, 1947-2000  
(dollars per peso)



Note: The real exchange rate is the product of the nominal exchange rate and the ratio of domestic to foreign prices. The Dominican consumer price index (1970 base year) and the US producer price index (1970 base year) are used to calculate the ratio of domestic and foreign prices.

Sources: BCRD, *Boletín Trimestral* (various issues), Astroga, Bergés and FitzGerald (2003).

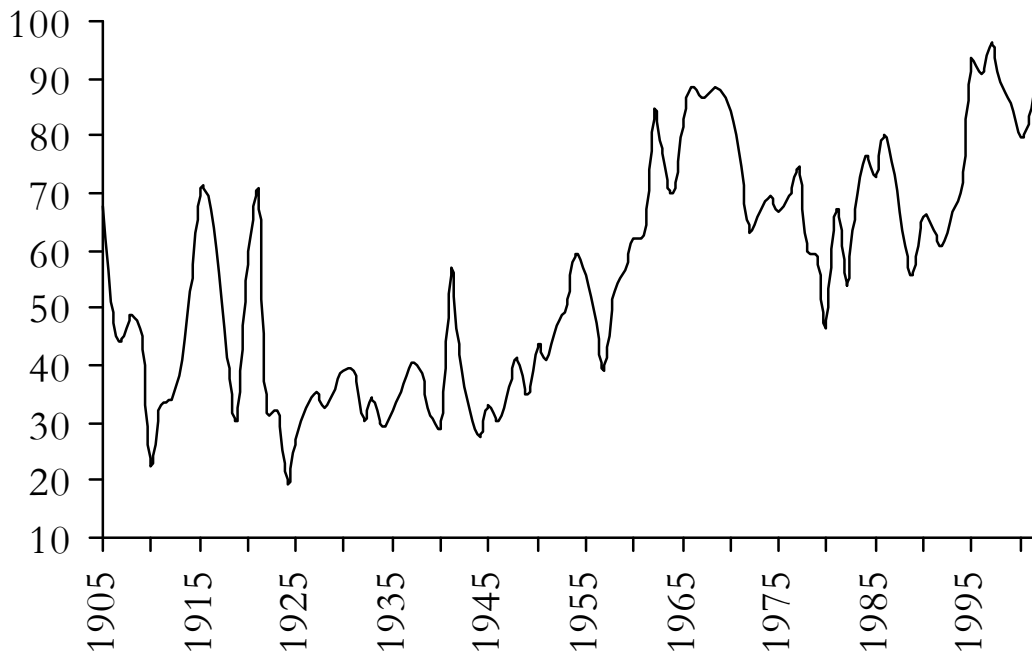
Improved trade with the US was another important factor in export growth and composition. The US introduced a series of tariff reductions on Dominican imports,<sup>6</sup> following its customs intervention in 1905 and military occupation from 1916-24.<sup>7</sup> This helped to concentrate Dominican export orientation to the US. From 1905-59, 42 per cent

<sup>6</sup> For details of these reductions, see Table 2A in the Appendix.

<sup>7</sup> The increased US intervention in Caribbean affairs towards the end of the nineteenth century was reflected in the Spanish-American War and strict observance of the Monroe Doctrine. The dramatic fall in exports to the US after 1920 was due to the emergency tariff of 1921 and the Fordney-McCumber tariff of 1922, which set the duty on sugar at 2.00 and 2.21 cents per pound respectively (Table A 2 in the Appendix). In contrast the duty on Cuban sugar was set at just 1.7648 cents per pound, and as a result US imports of sugar from Cuba rose from 1,639.9 thousand metric tons in 1910/11-1912/13 to 3,521.7 thousand metric tons in 1922-24 (FAO 1961). The slack in Dominican sugar exports was picked up by the UK, France and Ireland. For instance, the UK's share of Dominican sugar exports rose from 2.3 per cent in 1913 to 30.9 per cent in 1927, see Ellis (1933) p. 31.

of Dominican exports were destined for the US market. Although the early 1960s were marked by political and economic instability following the overthrow of the Trujillo dictatorship in 1961 and civil war, the US intervention in 1965 saw further consolidation of export orientation to US. By 1969, 88 per cent of Dominican exports were destined for US consumption. Although this share declined in the 1970s and 1980s, it was still sizeable at 67 per cent. Dominican exports to the US rose again to average 87 per cent of total exports from 1997-2002 (Figure 3). Finally, Dominican exports benefited from the US's efforts to improve the competitiveness of US companies, particularly those in the garment and textile industries, by allowing them to relocate the labour-intensive stages of production offshore.

Figure 3. US share of Dominican exports, 1905-2002  
(per cent of total exports)



Sources: US Census Bureau (1997), BCRD *Boletín Trimestral* (various issues), IMF *Direction of Trade Statistics* (various issues).

This section has traced trade policy reform in the Dominican Republic during the twentieth century, with a particular focus on tariff reform and exchange rate policy. It also noted the importance of the US as the country's main export market, especially from the 1960s. The following section will examine the extent to which the developments in trade liberalisation and market orientation spurred per capita growth and export diversification.

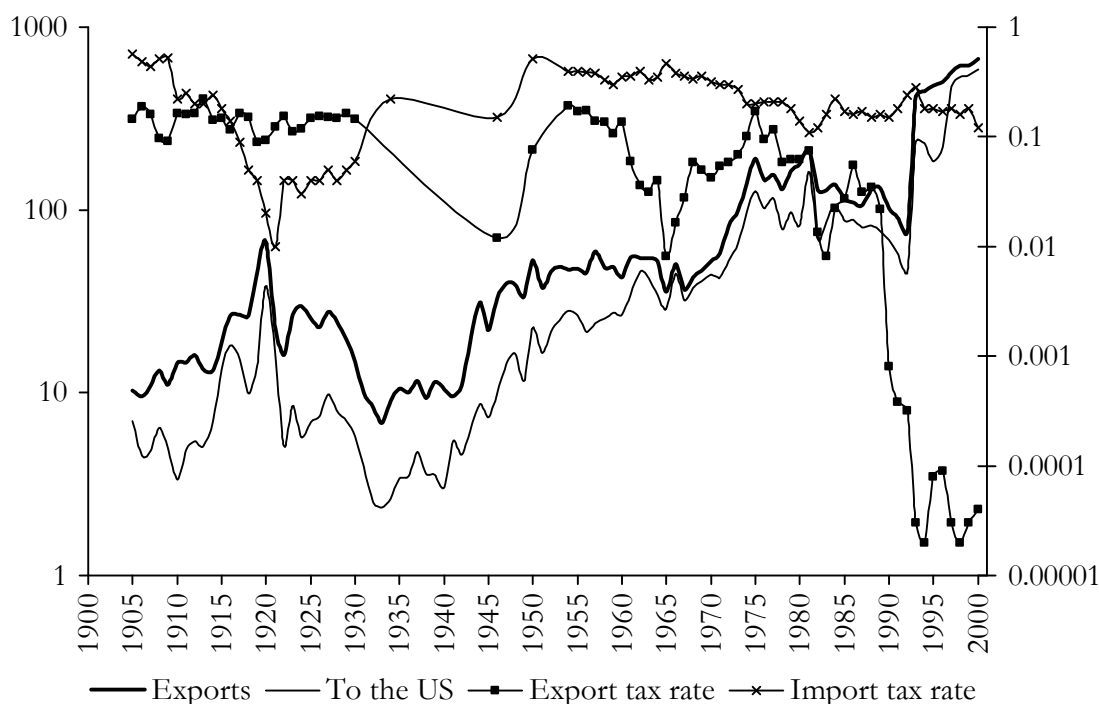


### 3 Dominican export performance

#### 3.1 Export growth

Figure 1.4 shows per capita growth of Dominican exports between 1905 and 2000, which averaged 4.5 per cent per annum over the century. It also shows trends in taxes on trade and on exports, as well as US demand for Dominican exports over time. The comparison suggests that over the century export growth has been driven more by US demand than by a decline in export taxes. For instance the 18 per cent per annum growth in per capita exports in 1940-50 was spearheaded by a 22 per cent increase in US demand, even as export taxes rose from 1 to 8 per cent from 1946-50.<sup>8</sup> Similarly, despite a dramatic fall in the export tax rate from 17 to 1 per cent from 1955-65, Dominican exports declined by 3 per cent per annum in the same period, as US markets began to close to the Trujillo dictatorship in the late 1950s and early 1960s. In the late 1960s and through the 1970s, a 6 per cent increase in US demand for Dominican exports saw an 8 per cent improvement in per capita exports – even as the export tax rate rose from 0.8 per cent in 1965 to 17 per cent by 1975. Only in the 1990s is there evidence of a strong inverse relationship between export growth and the liberalisation of export trade.

Figure 4. Exports per capita, tax rates, and US demand 1905-2000  
(dollars and per cent, log-scale)



<sup>8</sup> Export tax data are available only before 1930 and after 1946, see the discussion in section 2.

Note: Exports and exports to the US shown on the left axis; export and import tax rates shown on the right axis.

Sources: JNPC (1963) Tables 56, 59, 60, 67, ONE (1967), Table 75, Muto (1976), Tables 62-65, Cassá (1988), Martí Gutiérrez (1997), CEDOPEX (1995-6), BCRD *Boletín Trimestral* (various issues), BCRD (2000), Wilkie (2002), Astorga, Bergés and FitzGerald (2003). See also sources and notes for Figure 1.

The comparison of trends in Dominican exports and particularly of US demand with the evolution of taxes on trade is also revealing. The fall in the import tax rates from 57 to 6 per cent in the first 2 decades of the twentieth century saw a 12 per cent increase in exports to the US and a 13 per cent increase in exports. Similarly, the fall in import tax rates from less than 7.6 per cent in 1950 to 1.3 per cent in 1982 saw exports to the US rise by 4 per cent per annum and exports rise by 3 per cent per annum. When the import tax rate increased from 12 per cent in 1921 to 22 per cent in 1934, US demand for exports fell by 13 per cent per annum, and exports fell by 7 per cent. What this suggests is that trade liberalisation has had an indirect effect on export growth, by buying greater access to the US.

Although the data would support the claim that trade liberalisation in the Dominican Republic played an important role in the increase in US demand, closer inspection suggests that US demand for Dominican exports hinges more on trade liberalisation in the US market than on trade liberalisation in the Dominican Republic.<sup>9</sup>

The data indicate that despite the dramatic liberalisation of trade in the 1910s and 1920s (Table A 6), the US share of Dominican exports averaged less than 40 per cent in 1923-49. This was largely due to greater competition in the primary commodity markets after 1920 and growing protectionism by the US, beginning with the emergency tariff of 1921 and the Fordney-McCumber Act of 1922 (see **Table A 7**). The increase in exports to the US from the late 1930s to the mid 1970s, though coinciding with a decline in taxes on trade in the Dominican Republic, corresponded more to a series of Sugar Acts that granted the Dominican Republic increasingly preferential tariff treatment.

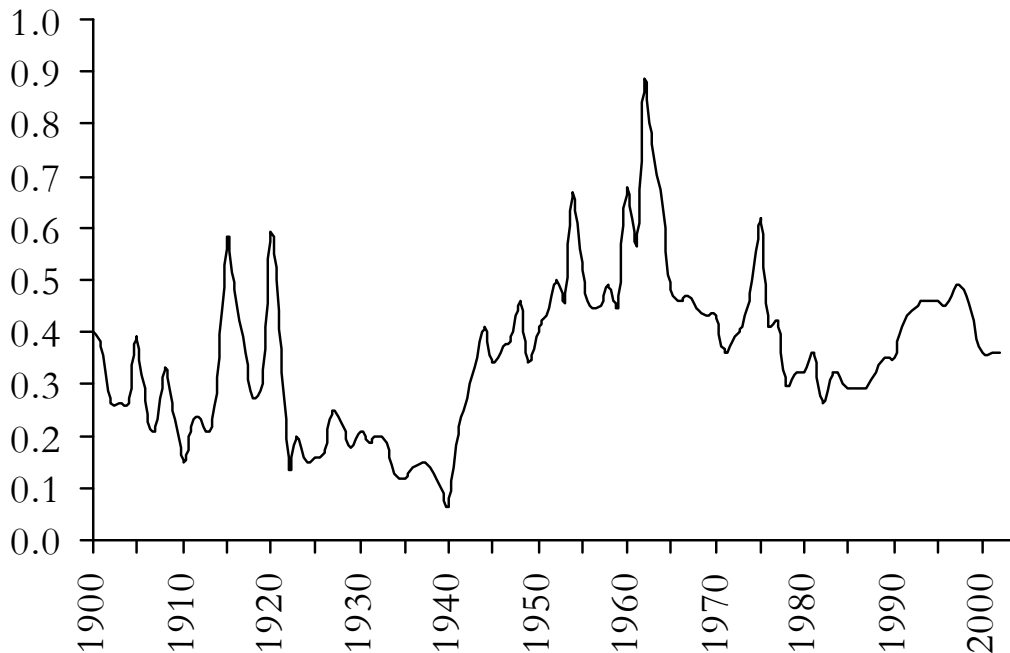
Whether trade liberalisation in the Dominican Republic gave the country a competitive edge over its competitors, especially those in the Caribbean Basin is also debatable. Despite trade liberalisation, however, the Dominican Republic has not been able to increase its US market share. The Dominican share of the US import market is shown in Figure 5. A comparison of Figure 3 and Figure 5 suggests that the US import market was far more responsive to trade policy reform in the early part of the century than in any other period. For instance, liberalisation measures in 1909 and 1919 were followed by an increase in import shares from 0.15 per cent in 1910 to nearly 0.6 per cent in 1915 and 1920. On the other hand the increase in import shares from the 1940s

---

<sup>9</sup> The problem of endogeneity is worth noting here in that preferential market access for certain exports is more often than not contingent on a reciprocal opening up of trade flows in the beneficiary country through the reduction of tariff and non-tariff barriers to trade in certain imports.

onward, peaking at 0.88 per cent in 1962, was related to the redistribution of US sugar quotas and coincided with an increase in the average duty on exports (from 7.9 per cent of export value in 1927-44 to 9.0 per cent in 1944-64, see Figure 5). Furthermore, despite a fall in the average duty on exports from the mid 1960s to a negligible level in the 1990s the Dominican Republic’s import market shares declined to converge on the century-long average of 0.36 per cent. In this context however it is worth noting that the US import market shares rose from mid 1980s to reach 0.79 per cent in 1997. This appears to have been related to the implementation of the 1983 Caribbean Basin Economic Recovery Act, the Twin Plants Scheme of 1986 and the Special Access Programme of 1986 in the US. These granted the Caribbean Basin countries duty-free entry for specific goods. Real exchange rate devaluation in the Dominican Republic in the mid to late 1980s also helped to make exports more competitive. The dramatic drop in import shares to 0.36 per cent after 1997 reflected a general loss of competitiveness, partly as a result of the North American Free Trade Agreement between the US and Mexico.

Figure 5. Dominican share of US imports, 1900-2002 (per cent)



Note: US imports include total merchandise, gold and silver.

Sources: US Census Bureau (1997), IMF *Direction of Trade Statistics Yearbook* (various issues), US Census Bureau *Statistical Abstract* (various issues).

An analysis of the import shares of the Caribbean Basin countries reveals changes in the competitiveness of the Dominican Republic. Figure 6 shows the shares of the US

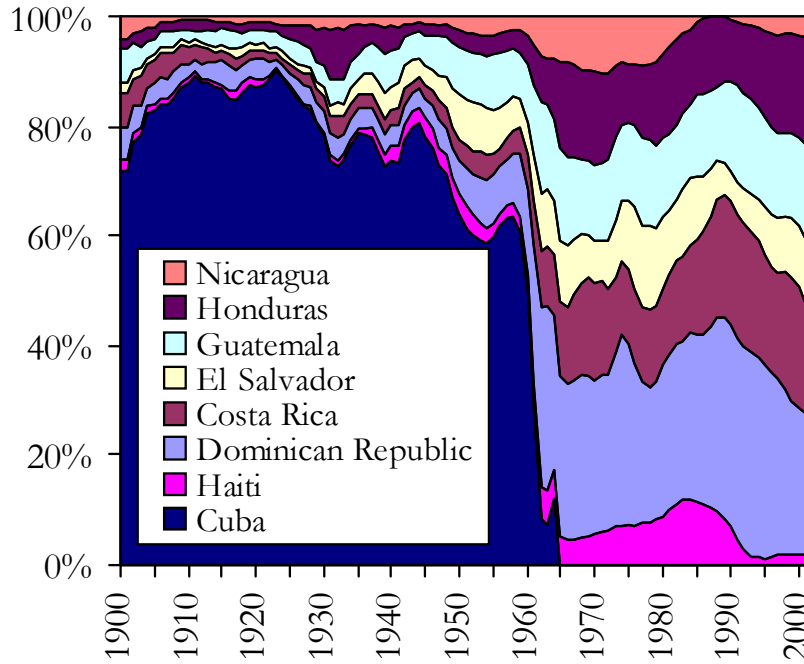
imports held by the main Caribbean Basin countries (Cuba is included because of its importance in the first half of the century). It is clear from the figure that the Dominican Republic gained most from the trade embargo against Cuba. Its share of US imports from the Caribbean Basin rose from 7 per cent in 1900-65 to 31 per cent in 1965-2000. It was certainly one of the biggest beneficiaries of the Caribbean Basin Initiative, with a 3.4 yearly compound growth in market share in 1982-94 at the expense of El Salvador, Haiti, Honduras and Nicaragua, whose import shares declined by 4.2 per cent, 20.9 per cent, 1.2 per cent and 4.6 per cent respectively.

From the mid 1990s however the Dominican Republic increasingly lost shares to Honduras. Whereas in 1994 the Dominican Republic and Honduras accounted for 38 per cent and 14 per cent of US regional imports respectively, by 2002 the Dominican Republic's share had dropped to 25 per cent and that of Honduras had risen to 20 per cent. This again supports the hypothesis that dramatic and sustained trade liberalisation in the Dominican Republic in the 1990s did not make the latter a more competitive source of imports, or at least not compared with Honduras.<sup>10</sup>

---

<sup>10</sup> Honduras's relative competitiveness drew from low labour costs and attractive free trade zone incentive packages, including unrestricted currency conversion; unrestricted currency, capital and profit repatriation; duty free importation and exportation of machinery and equipment, fixtures, spare parts, office supplies, raw materials and supplies; streamlined customs procedures with minimal paperwork for incoming and outgoing shipments; exemption from income, city and country sales and corporate taxes and fees; and the availability of low-cost, local raw materials and skilled and unskilled labour. Although the unemployment rate in the Dominican Republic was substantially higher than in Honduras (16.1 per cent and 3.6 per cent of the labour force respectively in 1995-97), salaries in the Dominican Republic were higher than in Honduras. The monthly salary of unskilled workers in Honduran free trade zones in 1997 was about US\$100 lower than in the Dominican Republic: \$172 per month compared with US\$272 per month. This might have been due to disparities in the quality of labour between the two countries, since the literacy rate in Honduras was 10 per cent lower than in the Dominican Republic (72 per cent compared with 82 per cent in 1990-2000). Data are from World Bank (2001), UNAT (1999) p. 9, CNZFE *Informe Estadístico* (various issues), and Astorga, Bergés and FitzGerald (2003).

Figure 6. Central American & Caribbean US import share, 1900-2002  
(per cent, three-year moving average)



Sources: IMF, *Direction of Trade Statistics Yearbook* (various issues), US Census Bureau *Statistical Abstract* (various issues).

Decomposing imports with the data available for 1989 to 2003 lends further support to this hypothesis, since the Dominican Republic lost US import shares under both full-duty (by 4.2 per cent per annum) and preferential import programmes. The 0.9 per cent per annum fall in import shares under the CBI import programme saw a 3.1 per cent increase in the Honduran share. Similarly, under the GSP import programme, the Dominican Republic’s share fell by 4.3 per cent per annum while those of Honduras, Guatemala and El Salvador increased by 7.6 per cent, 9.6 per cent and 10.6 per cent respectively. Under the Caribbean Basin Textile Parity Act (CBTPA) of 2000, the Dominican share declined by 2.1 per cent in 2000-03. Those of Honduras and Guatemala increased by 1.7 per cent and 3.5 per cent respectively. With a share of 37 per cent of regional imports in 2003, Honduras became the biggest exporter to the US under the CBTPA.

In sum, the US demand appears to have been a more influential factor in the Dominican Republic’s per capita export growth than the liberalisation of taxes on exports and imports. Certainly, its improved competitiveness following trade policy reform in the 1910s and 1990s resulted in clear increases in export growth. Nevertheless the largest increases in both export growth and US import share from the mid 1940s to the mid 1960s coincided with greater trade regulation (see Figure 1) and better access to the

preferential US sugar market as a result of successive amendments to the 1937 Sugar Act. This highlights the importance for long run export growth of securing preferential treatment in world export markets and the lengths to which countries are willing to go to secure them, including unilateral and bilateral liberalisation of trade and financial markets. The fact that the Dominican Republic's exports lost market share to its Caribbean Basin competitors, particularly Honduras, suggests that unilateral liberalisation alone was not sufficient to improve its cost competitiveness, particularly in the case of the low-technology, labour-intensive exports that benefited from the CBI, GSP and CBTPA agreements and typically characterised FTZ production. Thus in future it will need to focus on improving the quality of its labour force if it is to gain competitive advantage in production techniques that are intensive in skilled labour.<sup>11</sup>

The fact that the greatest losses occurred under the GSP import programme is particularly alarming because of its implications for the retention of export externalities.<sup>12</sup> An interesting task for future research would be to compare trade policy reform in the CBI countries to ascertain why Honduras gained US import shares at the expense of the other Caribbean Basin countries. Clearly, further research is needed to explain the relative shift in US import shares between the CBI countries, which appears to have been due more to higher labour costs, and perhaps to constraints on productive capacity and investment, than to concentrating on products characterised by less dynamic demand or the existence of more favourable US trade policies for other countries.

### *3.2 Export composition*

In addition to stimulating export growth, trade liberalisation encourages a more diverse export commodity basket. According to Tyler (1981) and Helleiner (1995), greater access to capital and intermediate imports has positive ramifications for non-traditional exports, particularly manufactures, in that it facilitates the transfer of implicit and embedded technical know-how.<sup>13</sup> The following subsections will examine the relationship between trade policy reform and export composition. The analysis focuses on (1) the relative shares of primary and manufactured export commodities in total commodity exports; (2) the relative shares of sugar, coffee, cacao and tobacco in primary export commodities; (3) the relative shares of national and FTZ manufactures in manufactured exports and (4) the composition of FTZ manufactures.

#### Traditional and non-traditional exports

---

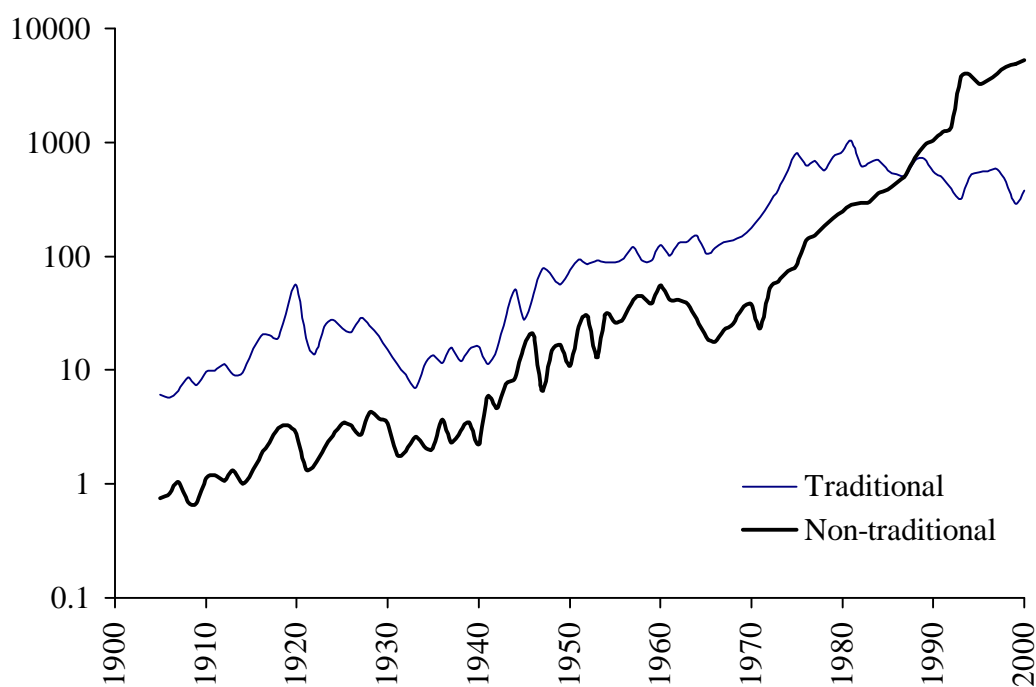
<sup>11</sup> Taking the literacy rate as a rough indicator of labour quality and skill, with a literacy rate of 83 per cent in 2000, the Dominican Republic has a strong comparative advantage relative to El Salvador (77 per cent), Honduras (73 per cent), Nicaragua (67 per cent) and Guatemala (65 per cent), but it still lagged significantly behind Costa Rica (95 per cent) and Cuba (96 per cent) ((Astorga et al., 2003).

<sup>12</sup> This was due to differences in the conditions on the origin of inputs under the CBI, GSP and CBTPA import programme.

<sup>13</sup> See also (Grossman and Helpman, 1995).

The trend in the composition of Dominican commodity exports shown in Figure 7 suggests that from the mid 1970s the export sector underwent a considerable structural change that led to a dramatic shift in export composition away from traditional (agricultural and mineral primary) exports. Averaging 81 per cent of exports in 1905-75, traditional primary exports fell steadily thereafter to account for 57 per cent of total commodity exports in 1990 and just 6 per cent in 2000. In contrast, the growth of non-traditional exports increased from 6.4 per cent per annum in 1905-60 to 13.5 per cent per annum in 1966-2000, at which point manufactures accounted for 94 per cent of total commodity exports.<sup>14</sup>

Figure 7. Exports of traditional and non-traditional goods, 1905-2000 (dollars, log-scale)



Sources: JNPC (1963), Tables 56, 59, 60, 67, ONE (1967), Table 75, Muto (1976), Tables 62-65, Cassá (1988), Martí Gutiérrez (1997), CEDOPEX (1995-6), BCRD *Boletín Trimestral* (various issues), BCRD (2000), Wilkie (2002), Astorga, Bergés and FitzGerald (2003).

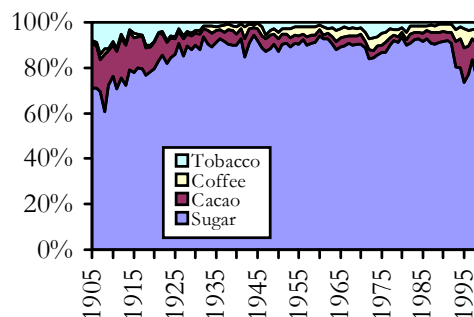
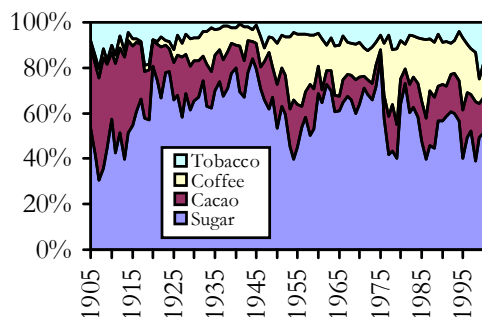
#### Commodity composition of traditional exports

<sup>14</sup> Trujillo's assassination in 1961, successive coups in 1962 and 1963 political disintegration that culminated in the 1965 civil war and US military intervention hit manufactured exports particularly hard and caused an 18.1 per cent decline in real growth between 1960 and 1966. For this period in Dominican history, see Wiarda and Kryzanek (1982) pp. 537-34 and Moya Pons (1997), p. 45.

The decrease in traditional exports noted above masks the continuing dominance of sugar, despite the changes made to trade policy during the century. A comparison of Figure 8 and Figure 9 suggests that the apparent diversification of agricultural exports from the 1940s reflected relative changes in export commodity prices rather than a qualitative shift in export production. Indeed sugar accounted for an average of 87 per cent of exports by volume until 1990, after which its share dropped to 80 per cent. This suggests that trade policy reform did not cause a significant diversification of export production – except arguably since 1990 – and that export production tended to concentrate on a primary export commodity whose world price was substantially lower than that of the other primary export commodities.

Figure 8. Composition of traditional agricultural exports by value, 1905-2000

Figure 9. Composition by traditional agricultural exports by volume, 1905-2000



Sources: Muto (1976), Tables 62-65, Cassá (1988), Martí Gutiérrez (1997), BCRD, *Boletín Trimestral* (various issues), BCRD (2000).

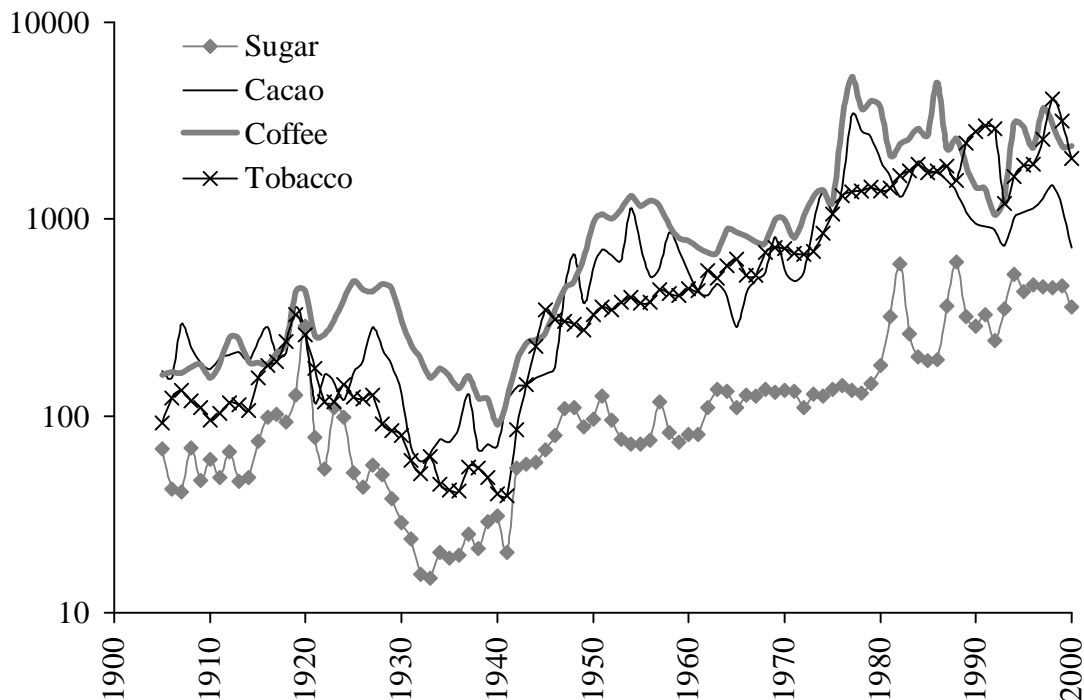
The prices for Dominican sugar are both lower and less stable than those for coffee, cacao and tobacco (Figure 10).<sup>15</sup> Sugar prices averaged \$143 per metric ton in

<sup>15</sup> A more precise comparison of prices for these commodities would be price per unit cost of production, which is likely to occupy a wide range between the relatively more capital-intensive production of sugar and the relatively more labour-intensive production of tobacco. However, as these data are not readily available for all the commodities nor for the long time period examined here, price per unit is used to give an approximate idea of trends in prices and stability over time.



1905-2000 while the prices for tobacco, cacao and coffee were substantially higher: \$732, \$654 and \$1,107 per metric ton respectively. Coffee and tobacco prices were also more stable (coefficient of variation of the growth rate of 4.75 and 4.13 respectively) compared with sugar (4.94).

Figure 10. Primary export commodity prices, 1905-2000 (dollars per ton, log-scale)



Sources: Muto (1976), Tables 62-65, Cassá (1988), Martí Gutiérrez (1997), BCRD *Boletín Trimestral* (various issues), BCRD (2000).

The reasons for the consolidation of export production under sugar despite the latter's relatively low and volatile prices have received substantial attention from Dominican economic historians. Their explanations are generally based on circumstances that affected the supply of the other primary commodities, such as the impact of crop disease on cacao and tobacco production and the heavy export taxes on low-quality cacao and tobacco.<sup>16</sup>

On the demand side, increasing competition from more efficient cacao and tobacco producers<sup>17</sup> and the interruption of trade with the tobacco sector's principal export market, Germany, during WWI resulted in a fall in world demand for these commodities. The sharp fall in export prices after 1920 had the knock-on effect of forcing the foreclosure and sale of small agricultural holdings, which increased the acreage of

<sup>16</sup> See Bryan (1979), Bryan (1983), Lluberes (1984), Baud (1995).

<sup>17</sup> Muto (1976) pp. 50-52, 54-55.

land available for sugar cultivation.<sup>18</sup> Also notable was the shift in sugar industry ownership from foreign resident capital to non-resident US corporate capital in the 1910s and 1920s and the vertical integration of the Caribbean sugar industry with that of the US.<sup>19</sup>

Finally, preferential treatment for Dominican sugar in the US market was a key factor in consolidating the export sector under sugar. US efforts to protect domestic sugar producers from foreign competition and an excess of market demand over domestic supply meant that Caribbean Basin sugar exporters could attain higher profit margins if they were able to secure preferential tariff treatment or a larger portion of the US sugar quota.<sup>20</sup> Moreover the trade embargo on Cuba resulted in the latter's sugar quota being redistributed among the other quota countries in the early 1960s. The Dominican Republic was the greatest beneficiary of this and it obtained the largest share of the quota.<sup>21</sup> This strengthened the position of the US as the main Dominican export market: whereas it had absorbed 9.8 per cent of Dominican sugar exports in 1955-59, by 1962-66 it accounted for nearly 84.4 per cent.<sup>22</sup> In sum, until the mid 1990s trade policy reform in the Dominican Republic concentrated on sugar exports and reflected a US market orientation. The declining importance of sugar in the 1990s appears to have been due to a reduction of its US market share, which fell from 16 per cent in 1984-92 to 14 per cent in 1993-2001.<sup>23</sup>

### Ore and metal exports

Ore and metal mining in the Dominican Republic began in the late 1950s when the Aluminium Company of America (Alcoa) set up a bauxite ore (aluminium) mining operation. The share of bauxite in total exports rose in the late 1960s and early 1970s,

---

<sup>18</sup> The increased acreage given to sugar cane had a negative impact on tobacco growers, who competed with the sugar industry for arable land. Land reform under the US military government made the dramatic increase in land for sugar cultivation possible, evidenced by an explosion of land holdings from 33,790 acres in 1893 to 438,182 acres by 1925. In the eastern region of San Pedro de Macorís, seven sugar mills controlled more than two thirds of the total sugar acreage in 1925, see Báez Everstz (1978) pp. 45-46. Knight (1928) p. 103 suggests that coffee production was able to expand during the 1910s and 1920s because it was cultivated in the mountainous regions of the Cordillera Central, where growers did not have to compete with the sugar industry for terrain. For land reform during the US occupation, see Lozano (1975) p. 87 and Calder (1984) pp. 107, 137.

<sup>19</sup> On the sugar industry, see Knight (1928), del Castillo (1985, 1974), Murphy (1990), Ayala (1999) and Báez Everstz (1986, 1978).

<sup>20</sup> See Blakey (1912), Ellis (1933), Heston (1987). The Dominican Republic was the main beneficiary of the quota system. In 1989, it held 17.6 per cent of the quota, followed by Brazil (14.5 per cent), the Philippines (13.5 per cent) and Australia (8.3 per cent). Data are from USDA (2004) Table 43.

<sup>21</sup> The Dominican share of the US sugar quota averaged 16.8 per cent from 1987-92. Data are from USDA (2004) Table 43.

<sup>22</sup> This increase was at the expense of European importing countries, which steadily lost shares. The UK alone had absorbed 54.4 per cent of Dominican sugar exports between 1955 and 1959, see ISO (various issues) .

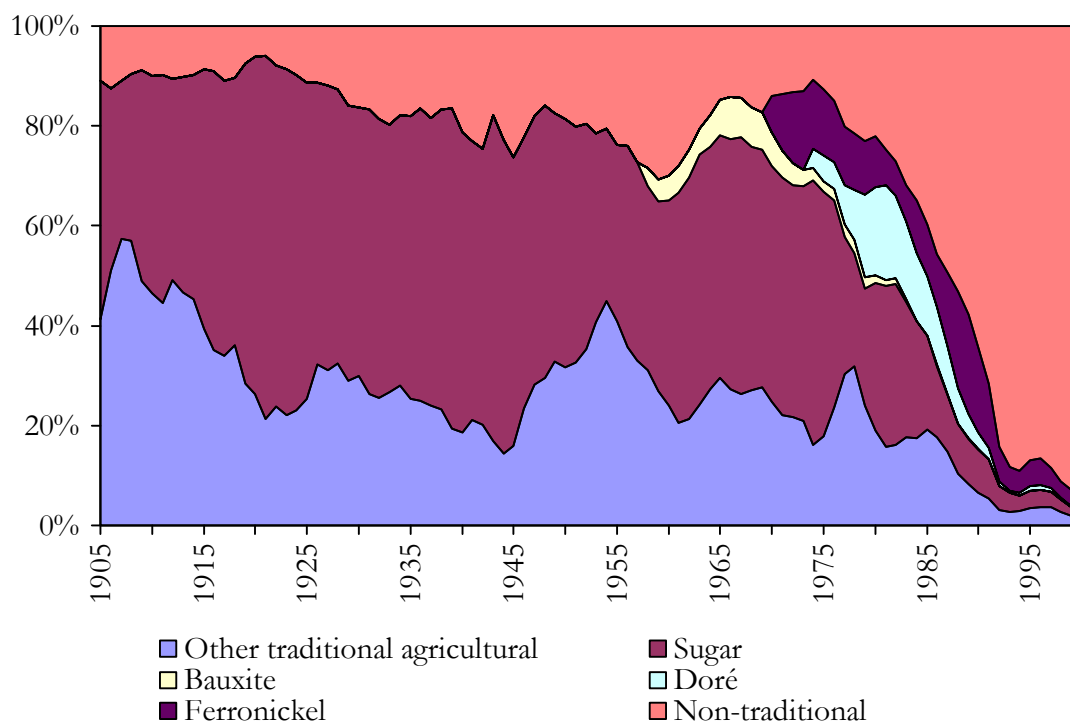
<sup>23</sup> Calculated from ISO (various).

averaging 8 per cent in 1965-71, but thereafter it declined to 0.7 per cent by 1982 (Figure 11). Fluctuating base metal prices plagued operations. Alcoa halted its operations in 1982 and its mine remained closed until 1987, when bauxite prices rose again and the mine was purchased by the Dominican government. A 61 per cent fall in world prices after 1987 resulted in operations ceasing in 1991.

In the 1970s and 1980s, the mining sector became one of the biggest foreign exchange generators, peaking at 40 per cent of total exports in 1989. Mining exports were spearheaded by ferronickel and doré (a gold and silver alloy). Falconbridge Dominicana (Falcondo) began to mine ferronickel commercially in 1971 and became the second largest ferronickel producer in Latin America after Cerro Matoso in Colombia. When Rosario Dominicana opened the Pueblo Viejo gold mine in 1975, it was the largest open-pit gold mine in the Western hemisphere. From 3 per cent of exports in 1975, doré skyrocketed to account for 27 per cent of total exports by 1980.

In the late 1980s, low base metal prices, a weak world demand for nickel and unscheduled plant repairs interrupted nickel production. Similarly, the low prices of gold in the world market and difficulty with increasing the extraction of gold levels with the available technology led to the temporary closure of Rosario Dominicana in 1992-94 and again in 1999.

Figure 11. Share of principal exports in total exports, by value, 1905-2000  
(per cent, three-year moving average)



Sources: Muto (1976) Tables 62-65, Cassá (1988), Martí Gutiérrez (1997), BCRD *Boletín Trimestral* (various issues), BCRD (2000), Astorga, Bergés and FitzGerald (2003).

### Non-traditional exports

The change in the export structure from primary commodities to manufactures rested almost entirely on the final assembly operations of mainly foreign companies operating in the FTZs. The growth of FTZ manufacturing was partly due to a strong response to the Dominican currency devaluation in 1985 and to the government's FTZ promotion policies. External factors included preferential access to US markets (under the Caribbean Basin Initiative, Special Access Programmes, the Generalised System of Preferences, Programme HTS 9802 and section 936 of the internal tax code) and the restructuring of the US garment, electronics, medical and footwear industries in response to competition from East Asian manufacturers.

In contrast, the response of domestic manufacturers to trade liberalisation was mixed. While trade policy reforms in the late 1970s and early 1980s did prompt an increase in domestic manufactured exports, Dominican manufacturers failed to respond positively to devaluation and their output declined in the 1980s and early 1990s. There was some improvement after 1992, and this was probably related to the abolition of export taxes and other restrictions, a simplification of the exchange rate system, the reduction of import surcharges and a new export classification. As discussed above, the change in the export structure was also associated with a further concentration of export markets rather than diversification.

The trends in non-traditional exports and FTZ manufactures exports shown in Figure 12 suggest that these two sectors responded very differently to trade policy. For instance the growth rate of non-traditional exports declined from 6.2 per cent per annum and relative stability (a coefficient of variation of 3.09) during the first six decades of the century to negative and volatile in real terms from 1961 to 1992 (a -0.5 per cent per annum growth rate and coefficient of variation of 5.18).<sup>24</sup> Although the implementation of compensatory schemes in the late 1970s and early 1980s to combat the anti-export bias did result in an increase in non-traditional exports of 7.0 per cent from 1979 to 1985, these exports fell steadily thereafter from US\$297.7 million in 1985 to \$179.4 million by 1992, despite a devaluation in 1985. It is worth noting, however, that non-traditional exports improved dramatically after 1992 with a 17 per cent per annum increase through 2000. There are several factors behind this growth: (1) the abolition of export taxes and other restrictions in the early 1990s (see Figure 1); (2) a simplification of the exchange rate system and the reduction of import surcharges in 1992; and (3) the greater integration of domestic products,<sup>25</sup> with FTZ industries utilising domestic manufactures as inputs to

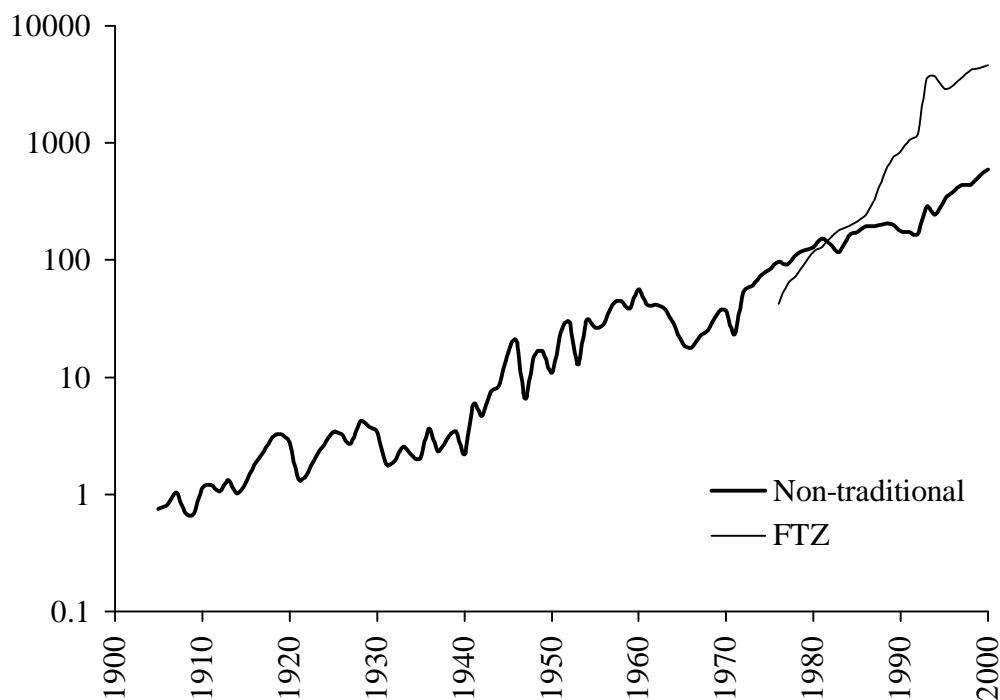
---

<sup>24</sup> Domestic manufactures included processed goods, leather and leather products, fertilizers and pesticides, cement, lime plaster and some light industrial machinery.

<sup>25</sup> Inputs that could be sourced domestically included precious and semiprecious stones and agro-industrial goods, as well as supplementary products such as tags, cartons, office supplies packing and packaging materials, bags printed materials and maintenance supplies, such as lubricants and spare parts.

the latter (although this last point is difficult to quantify as national exports to FTZs are not reported separately).

Figure 12. Non-traditional and FTZ exports, 1905-2000 (dollars, log scale)



Source: JNPC (1963) Tables 56, 59, 60, 67, ONE (1967) Table 75, Muto (1976) , Tables 62-65, Cassá (Cassá), Martí Gutiérrez (1997), CEDOPEX (1995-6), BCRD *Boletín Trimestral* (various issues), BCRD (2000), CNZFE *Informe Estadístico* (various issues).

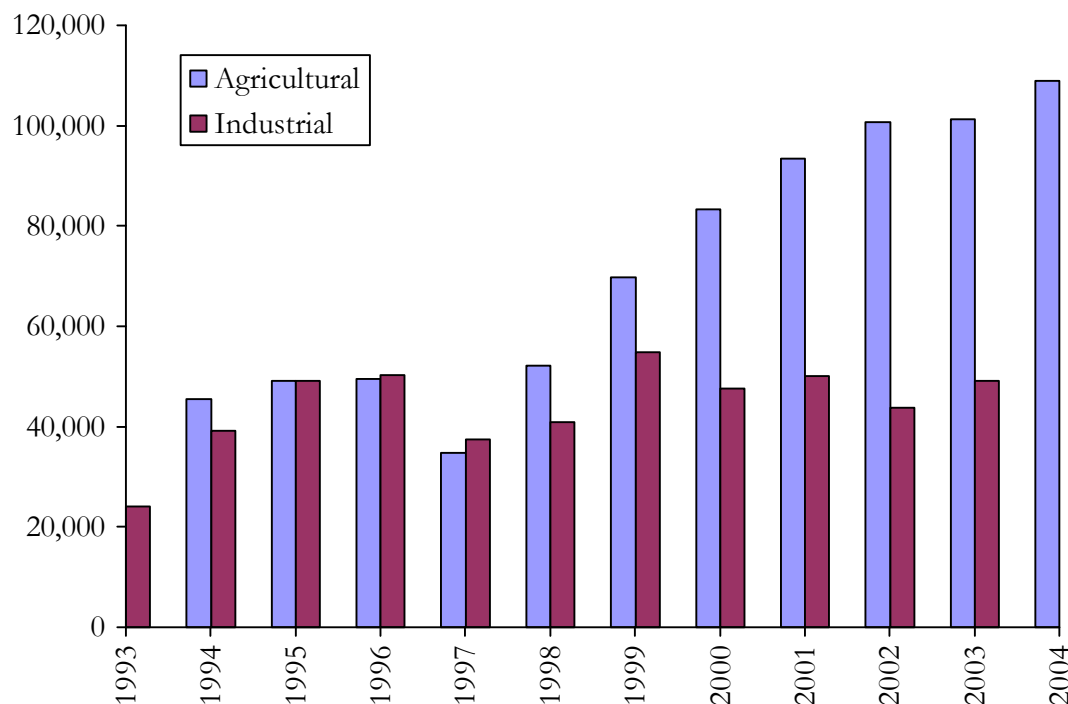
### Non-FTZ and FTZ manufactures

However, the apparent improvement in performance of non-traditional exports in the 1990s is actually rooted in a boom in non-traditional agricultural exports, shown in Figure 13. Dominican economist Andrés Dauhajre has attributed the weak performance of national manufactures to poorly designed export promotion schemes. He argues these schemes failed to encourage industrial exports because they were not part of an integrated industrial strategy. Comprising a haphazard assortment of export promotion policies, they failed to reduce the administrative cost of exports in part because they lacked real authority.<sup>26</sup>

---

<sup>26</sup> The Dominican Centre for Exports (CEDOPEX), which was set up to promote non-traditional exports, operated under great uncertainty. Its executive directors were selected by the executive branch but were often replaced by the governing political party. In the period 1990-94 alone, CEDOPEX had five different executive directors, Dauhajre 1994 p. 39. The process of applying for an export license was a deterrent to exporting. The process consisted of 89 steps and

Figure 13. Non-traditional agricultural and industrial exports, (thousand dollars)



Sources: BCRD *Boletín Trimestral* (2005).

The performance of FTZ manufactures exports stands in stark contrast to that of national manufactures. FTZ exports grew by 18.2 per cent per annum in real terms in 1976-2000 and accounted for 90 per cent of total exports in 1991-2000. Following the 1985 devaluation, they experienced strong growth, with a rising average annual growth rate from 16.4 per cent prior to 1985 to 19.3 per cent in 1985-92. The sharp increase in FTZ exports (by 214 per cent) in 1992-93 partly reflected a change in the classification convention and a recalculation of trade in accordance with the 5<sup>th</sup> IMF Manual of Balance of Payments. The sudden fall in 1994 was due to the loss of contracts to Mexico following ratification of the North American Free Trade Agreement (NAFTA). Despite this, FTZ exports quickly recovered and grew at an average of 14 per cent per annum in 1995-2000.

Free trade zone exports

The export concentration associated with trade liberalisation and trade relations with the US in the case of primary export commodities and between national and FTZ manufactures is also evident in FTZ production.

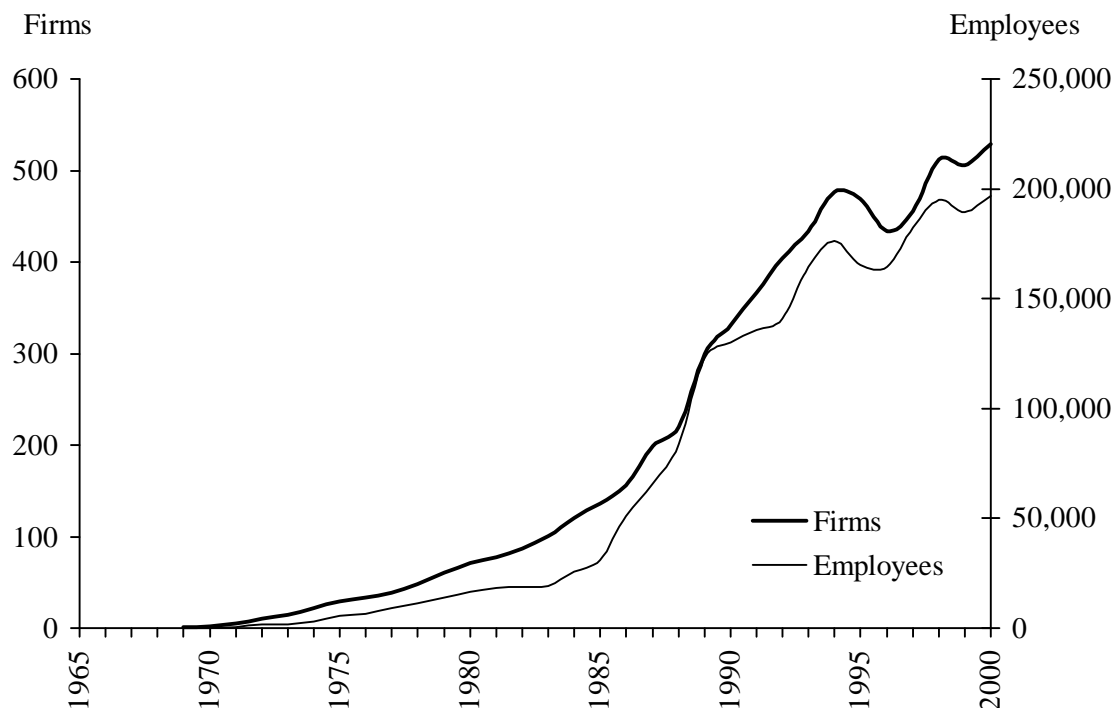
Though legislation creating the FTZ areas dates to 1955, these only developed

---

took 71 days. Similarly, the Temporary Admission scheme required 63 steps and took 43 days and the Special License required nine steps and took 2.35 hours, Dauhajre (1994) p. 63.

after the 1969 Law 299 for Industrial Development. Figure 14 below illustrates the evolution in FTZ firms and employment from 1969 to 2000.

Figure 14. Evolution in FTZ firms and employment (number)



Sources: Compiled from CNZFE *Informe Estadístico* (various issues).

The available data on FTZ production by number of firms suggests that production was focused on low-technology, labour-intensive textile and garment manufactures (Table 2). By 1996, two years after NAFTA took effect, the number of textile firms had fallen from 301 to 285, although their share of FTZ firms rose to 65 per cent due to a reduction of the total number of firms in the FTZ sector.

Table 2. Composition of FTZ firms, 1983-2000 (per cent)

	1983	1987	1992	1993	1994	1995	1996	1997	1998	1999	2000
Textiles	57	47	67	70	63	63	65	61	59	57	57
Other	43	53	33	30	37	37	35	39	41	43	43
of which:											
Footwear	14	12	5	6	8	8	5	5	5	4	4
Electronic	4	4	5	5	3	5	4	5	6	6	3
Jewellery	4	3	3	3	4	4	4	4	3	3	3
Tobacco	7	4	3	3	2	2	4	5	6	5	6
Medical	0	0	1	1	0	0	3	2	2	2	3

Sources: Compiled from CNZFE *Informe Estadístico* (various issues).

By value, after 1995 textile exports accounted for more than half of FTZ exports (Table 3), averaging more than 57 per cent of FTZ export value in 1995-2000. While the relative shares of low-technology manufactures such as footwear (mainly leather uppers), processed tobacco and higher technology manufactures such as electronic equipment remained steady during the 1990s, the relative shares of manufactures at the higher end of the technology scale, for instance medical products, fell from 9 per cent of non-textile FTZ exports in 1990 to 2 per cent in 2000 (Table 3). This suggests that trade liberalisation and reduced-tariff access to the US market prompted a concentration rather than diversification of FTZ production.

Table 3. Composition of FTZ exports, 1990-2000 (per cent)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Textiles	23	26	27	41	44	61	58	63	57	55	53
Other <sup>1</sup>	77	74	73	59	56	39	42	37	43	45	47
of which:											
Footwear <sup>2</sup>	13	12	11	7	8	n.a.	n.a.	n.a.	n.a.	10	12
Electronic <sup>2</sup>	9	8	7	5	6	n.a.	n.a.	n.a.	n.a.	9	6
Jewellery <sup>2</sup>	8	7	8	4	3	n.a.	n.a.	n.a.	n.a.	6	10
Tobacco <sup>2</sup>	3	2	2	1	1	n.a.	n.a.	n.a.	n.a.	7	7
Medical <sup>2</sup>	9	9	9	8	8	n.a.	n.a.	n.a.	n.a.	1	2

Notes:

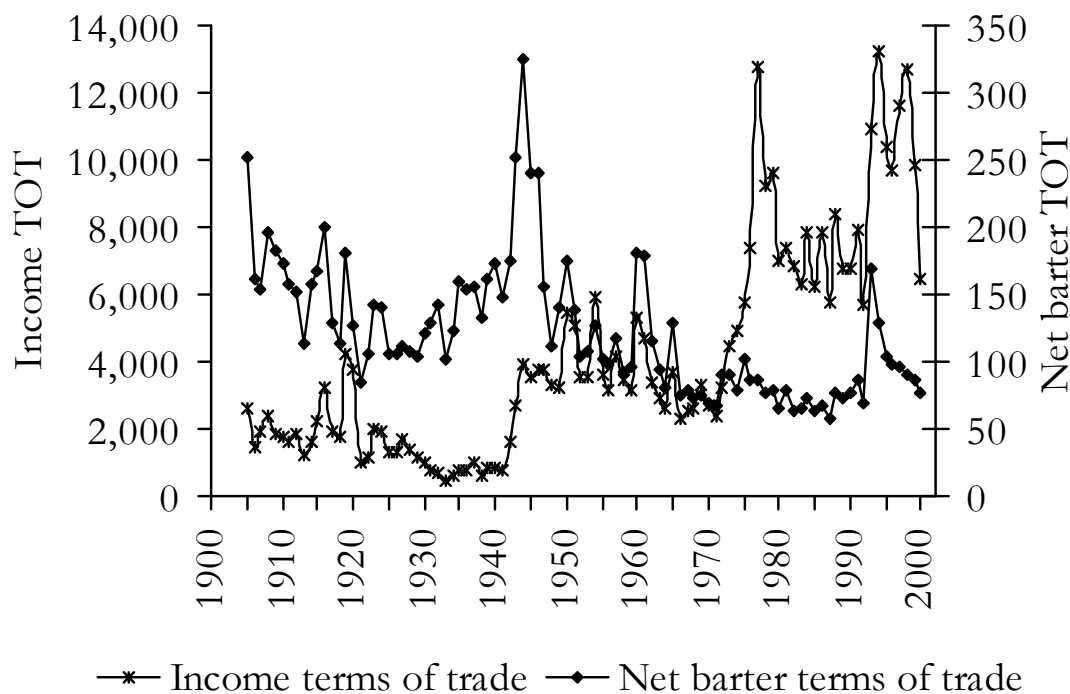
1. Other FTZ exports included services such as data processing, translations, computer software development and toll-free telephone services for Spanish speakers in the US.
2. No disaggregated data is available for non-textile exports in 1995-98.

Sources: CNZFE, *Informe Estadístico* (various issues).

As noted earlier, the composition of exports shifted from primary commodities to resource- and non-resource-based manufactures during the twentieth century. However, there was little change in the country's capacity to import, particularly from the mid 1940s, as shown in Figure 15.



Figure 15. Net barter and income terms of trade between Dominican exports and imports, 1900-2000 (three-year moving average)



Notes: The net barter terms of trade are the ratio of exports to imports. The income terms of trade are calculated as the product of the net barter terms of trade and the index of export prices. Because official estimates of the index of export prices are not available prior to 1930, the index of export prices was calculated with commodity price and volume data using a modified Laspeyres formula based on the weighted average of prices:

$$L = \frac{\sum q_t \times \frac{p_t}{p_0} \times 100}{\sum q_t}$$

commodity bundle includes sugar, coffee, cacao and tobacco.

Sources: Astorga, Bergés and FitzGerald (2003).

Another interesting development was the participation of local capital in FTZ production, especially since this had not been explicitly promoted. The earliest year for which these data are available, 1992, shows that the Dominican Republic was the second-most important source of FTZ capital by firm as well as by investment, after the United States (Table 4 and Table 5). From 1992 Dominican capital investment in FTZ firms grew by a cumulative annual average of 4.8 per cent, compared with the 2.7 per cent growth of US capital investment (Table 4). Dominican capital investment was also more stable than its US counterpart. Although both underwent a decline after NAFTA took effect in 1994 (US capital by 1.8 per cent and Dominican capital by 2.2 per cent), local capital recovered more rapidly (a 28.7 per cent increase), while US capital continued to drop (-14.9 per cent).

Table 4. FTZ firms by origin of capital, 1992-2000 (number)

Country of Origin	1992	1993	1994	1995	1996	1997	1998	1999	2000
United States	197	205	219	215	207	216	249	243	228
Dominican Republic	100	95	139	136	124	133	147	145	166
South Korea	37	38	36	34	29	31	32	26	27
Taiwan	12	12	11	11	6	7	8	8	7
Panama	11	17	n.a.	n.a.	n.a.		11	15	11
Puerto Rico	8	9	n.a.	n.a.	n.a.	10	5	7	8
Italy	0	0	6	6	5	5	5	5	5
Others	39	58	65	67	63	44	39	35	0

Sources: CZNFE *Informe Estadístico* (various issues).

Table 5 Average firm investment by country of origin, 1999

Country of Origin	Firms (Number)	Investment <sup>1</sup> (Thousand US\$)	Mean Investment (US\$ per firm)
South Korea	32	1,735,274	54,227
Taiwan	8	369,000	46,125
United States	249	6,208,379	24,933
Panama	11	230,125	20,921
Dominican Republic	147	2,388,968	16,252
Puerto Rico	5	56,000	11,200
Italy	5	4,554	911
Other	39	618,633	15,862
Total	496	11,610,933	23,409

Note:

1. Investment in Dominican pesos converted to US dollars at the parallel market exchange rate.

Sources: Martí Gutiérrez (1997), CNFZE *Informe Estadístico* (1999).

Foreign investors in the FTZs appear to have retained a high degree of autonomy and few made a long- or medium-term commitment to the Dominican Republic, and as a result the state encouraged participation of local capital investment in the FTZs. This aided greater economic stability as local FTZ industries were less likely to shift their operations overseas.

This increase in local participation in FTZs can be partly explained by organisational reforms, the transformation of former import substitution industries and the development of national producer services. For instance, in 1990 Law 8-90 created a special FTZ category to allow firms that had until then benefited from the incentives accorded to them by the Export Promotion Law 69 of 1979 to enjoy FTZ status without having to physically relocate their operations to an FTZ park. The Export Promotion Law 69 made it possible for export firms with a minimum local capital share of 90 per cent to gain access to currency from the BCRD and long term finance from the FIDE. This provision was aimed at eliminating the bias in Law 4315 of 1955, which denied access to

internal finance to domestic entrepreneurs seeking to set up an FTZ firm.<sup>27</sup> Customs and CNZFE officials have confirmed that a large number of national firms were established in the special FTZs under Laws 69 and 409.<sup>28</sup> The rapid recovery of non-FTZ manufacturing exports in the 1990s noted in Figure 12 further suggests that the import substitution and export promotion policies that were declared failures in the 1970s proved successful in the longer term.<sup>29</sup>

#### 4 *Conclusions*

The long run trends discussed in this paper suggest that external market access, and particularly access to the US market, determined both the growth rate and the composition of Dominican exports. Moves towards trade liberalisation reflected attempts to gain a competitive advantage over other developing countries by securing preferential access to the US market. At the same time, the preferential trade arrangements that resulted reinforced the US's position as the Dominican Republic's principal export market. The country's acute dependence on the US as a source of imports and an outlet for exports gave the US strong bargaining power in trade arrangements.

Trade liberalisation was expected to lead to improved competitiveness and export diversification. At first glance, this appears to have been the case. However, the country's apparently magnificent export performance becomes suspect when the statistics are disaggregated into primary commodities and manufactures and further disaggregated into manufactures of domestic and FTZ origin. Primary exports continue to be dominated by sugar and FTZs account for nearly all of the country's manufactured exports, the bulk of which are textiles and garments produced by unskilled workers using low technology. Meanwhile domestic manufactures have stagnated. This suggests that export diversification, particularly in respect of manufactures, has been qualitatively different in Latin America's small open economies than in the larger ones such as Mexico and Brazil. The latter countries have been better positioned to cultivate their industrial capabilities by exploiting economies of scale and scope – made possible in part by their natural resource endowments and population size – and eventually shift their output from internal to external markets. In the smaller economies, structural change has not been spearheaded by a shift in the market orientation of the existing industrial base, but rather by hosting specific (predominantly labour-intensive and resource-intensive) stages of the production process that had previously taken place in the destination market.

The absence of any real commodity diversification has been compounded by the fact that the Dominican Republic's share of the US import market has fallen in the very exports upon which its production is increasingly concentrated. This may be because the process of trade liberalisation in the Dominican Republic occurred more or less at the same time as that in other Caribbean Basin countries such as Costa Rica, Honduras, Nicaragua and Guatemala, all of which enjoy similar comparative advantages in

---

<sup>27</sup> BCRD (1994).

<sup>28</sup> Personal communications with the ex-subdirector of CNZFE, D. Liranzo, and J. Vilalta Garcia, Textile Engineer and President of Special Free Zone Garment S.A.

<sup>29</sup> Jiménez (1996) p. 37.

geographic proximity, cheap and abundant labour supplies, and favourable tariff-reduced access to the US market. However improvements in transportation and declining transportation costs, combined with even cheaper unskilled labour and the growth of FTZ-based services such as translation and telephone services, mean that export activities are increasingly less constrained by geography, and that geographical proximity to the US no longer has the same leverage. In the face of stiff competition, policy makers in these countries may feel compelled to further liberalise trade and financial flows in the expectation of gaining ever more favourable tariff treatment in the US, and/or turn to currency devaluation in order to become more price-competitive than their counterparts.

#### 4 References

- ACOSTA, C.** (2000) Bill Clinton Promulga la Ley Que Otorga la Paridad Textil a la Rd. *Listín Diario*. Santo Domingo.
- AHMED, N. U.** (2000) Export Responses to Trade Liberalisation in Bangladesh: A Cointegration Analysis. *Applied Economics*, 32, 1077-1084.
- ASTORGA, P., BERGÉS, A. R. & FITZGERALD, E. V. K.** (2003) The Oxford Latin American Economic History Database (OxLAD). The Latin American Centre at Oxford University, <http://oxlad.qeh.ox.ac.uk/>.
- AYALA, C. J.** (1999) *American Sugar Kingdom: The Plantation Economy of the Spanish Caribbean, 1898-1934*, London, University of North Carolina.
- BÁEZ EVERSTZ, F.** (1978) *Azúcar y Dependencia en la República Dominicana*, Santo Domingo, Universidad Autónoma de Santo Domingo.
- BÁEZ EVERSTZ, F.** (1986) *La Formación del Sistema Agro Exportador en el Caribe: República Dominicana-Cuba, 1515-1898*, Santo Domingo, Universidad Autónoma de Santo Domingo.
- BALASSA, B.** (1989) Outward Orientation. IN CHENERY, H. B. & WATANABE, T. (Eds.) *Handbook of Development Economics*. New York, Elsevier Science Publishing Company, Inc.
- BANCO CENTRAL de la REPÚBLICA DOMINICANA (BCRD)** (1994) *Programas de Financiamiento para Empresas y Parques Industriales en Zonas Francas*, Santo Domingo, Banco Central de la República Dominicana.
- BANCO CENTRAL de la REPÚBLICA DOMINICANA (BCRD)** (2000) *Balanza de Pagos de la República Dominicana, 1993-1998*, Santo Domingo, Banco Central de la República Dominicana.
- BANCO CENTRAL de la REPÚBLICA DOMINICANA (BCRD)** (various) *Boletín Trimestral*, Santo Domingo, Banco Central de la República Dominicana.
- BAUD, M.** (1995) *Peasants and Tobacco in the Dominican Republic, 1870-1930*, Knoxville, University of Tennessee Press.
- BLAKEY, R. G.** (1912) *The United States Beet-Sugar Industry and the Tariff*, New York, Columbia University.
- BRYAN, P.** (1979) La Producción Campesina en la República Dominicana a Principio del Siglo XX. *Revista Eme-Eme*, 7, 29-62.
- BRYAN, P.** (1983) Staple Exports and the Mercantile Sector in the Dominican Republic, 1900-16. IN HIGMAN, B. W. (Ed.) *Trade, Government and Society in Caribbean*

- History, 1700-1920: Essays Presented to Douglass Hall*. Kingston, Heinemann Educational Books Caribbean.
- CALDER, B.** (1984) *The Impact of Intervention: The Dominican Republic During the Us Occupation of 1916-1924*, Austin, University of Texas Press.
- CASSÁ, R.** (1988) *Historia Social y Económica de la República Dominicana*, Santo Domingo, Editora Alfa y Omega.
- CENTRO DOMINICANO de PROMOCIÓN de EXPORTACIONES (CEDOPEX)** (various) *Boletín Estadístico*, Santo Domingo, Centro Dominicano de Promoción de Exportaciones.
- COLLIER, D.** (Ed.) (1979) *The New Authoritarianism in Latin America*, Princeton, Princeton University Press.
- CONSEJO NACIONAL de ZONAS FRANCAS de EXPORTACIÓN (CNZFE)** (various) *Informe Estadístico*, Santo Domingo, Dupligraf, S.A.
- DAUHAJRE, A.** (1989) *Las Zonas Francas Industriales: El Éxito de Una Política Económica*, Santo Domingo, Editora Corripio.
- DAUHAJRE, A., ARISTY ESCUDER, J. & CASTRO, R.** (1994) *Sesgo Anti-Exportador y Promoción de Exportaciones en la República Dominicana*, Santo Domingo, Banco Central de la República Dominicana.
- de la ROSA, A.** (1987) *Las Finanzas de Santo Domingo y el Control Americano*, Santo Domingo, Editora Amigo del Hogar.
- del CASTILLO, J.** (1974) *La Gulf + Western en República Dominicana*, Santo Domingo, Universidad Autónoma de Santo Domingo.
- del CASTILLO, J.** (1985) The Formation of the Dominican Sugar Industry: From Competition to Monopoly, from National Semiproletariat to Foreign Proletariat. IN MORENO FRAGINALS, M., MOYA PONS, F. & ENGERMAN, S. L. (Eds.) *Between Slavery and Free Labour: The Spanish-Speaking Caribbean in the Nineteenth Century*. London, Johns Hopkins University Press.
- DEPARTMENT OF AGRICULTURE (USDA)** (2004) Sugar Statistical Compendium. United States Department of Agriculture, <http://usda.mannlib.cornell.edu/datasets/specialty/91006>.
- ELLIS, L. S.** (1933) *The Tariff on Sugar*, Freeport, IL, Rawleigh foundation.
- FOOD AND AGRICULTURE ORGANISATION (FAO)** (1961) *The World Sugar Economy in Figures 1880-1959*, Rome, Food and Agriculture Organization of the United Nations.
- GROSSMAN, G. & HELPMAN, E.** (1995) Technology and Trade. IN GROSSMAN, G. & ROGOFF, K. (Eds.) *Handbook of International Economics*. Amsterdam, Elsevier.
- HELLEINER, G. K.** (1994) *Trade Policy and Industrialisation in Turbulent Times*, London, Routledge.
- HELLEINER, G. K.** (1995) 'Trade, Trade Policy and Industrialization Reconsidered' *World Development Studies*, 6, WIDER.
- HESTON, T. J.** (1987) *Sweet Subsidy: The Economic and Diplomatic Effects of the U.S. Sugar Acts 1934-1974*, London, Garland.
- HOLLANDER, J. H.** (1907) The Readjustment of San Domingo's Finances. *Quarterly Journal of Economics*, 21, 405-426.

- INTERNATIONAL MONETARY FUND (IMF)** (various) *Direction of Trade Statistics Yearbook*, Washington, DC, International Monetary Fund.
- INTERNATIONAL SUGAR ORGANIZATION (ISO)** (various) *Sugar Yearbook*, London, International Sugar Organization.
- JIMÉNEZ, A.** (1996) Impacto de las Zonas Francas en la Mejora de la Productividad Nacional. *Primera Conferencia Nacional sobre la Mejora de la Productividad Empresarial*. Santo Domingo, Editora Amigo del Hogar.
- JOSHI, V. & LITTLE, I. M. D.** (1996) *India's Economic Reforms 1991-2001*, Oxford, Oxford University Press.
- JUNTA NACIONAL de PLANIFICACIÓN y COORDINACIÓN (JNPC)** (1963) *Informaciones Estadísticas Dominicanas*, Santo Domingo, Junta Nacional de Planificación y Coordinación.
- KNIGHT, M.** (1928) *The Americans in Santo Domingo*, New York, Vanguard Press.
- LLUBERES, A.** (1984) La Crisis del Tabaco Cibaeño. IN LLUBERES, A., del CASILLO, J. & ALBURQUERQUE, R. (Eds.) *Tabaco, Azúcar, y Minería*. Santo Domingo, Editora La Palabra.
- LOZANO, W.** (1975) Azúcar e Imperialismo en la República Dominicana. *Realidad Contemporánea*, 1.
- MARTÍ GUTIÉRREZ, A.** (1997) *Instrumental para el Estudio de la Economía Dominicana: Base de Datos, 1947-1995*, Santo Domingo, Editora Alpha y Omega.
- MILNER, C.** (1990) *Export Promotion Strategies: Theory and Evidence from Developing Countries*, New York, New York University Press.
- MOYA PONS, F.** (1992) *Empresarios en Conflicto: Políticas de Industrialización y Sustitución de Importaciones en la República Dominicana*, Santo Domingo, Fondo para el Avance de las Ciencias Sociales.
- MOYA PONS, F.** (1997) *Manual de Historia Dominicana*, Santo Domingo, Caribbean Publisher.
- MURPHY, M.** (1990) *Dominican Sugar Plantations: Production and Foreign Labor Integration*, London, Praeger Publishers.
- MUTO, P.** (1976) The Illusory Promise: The Dominican Republic and the Process of Economic Development, 1900-1930. *PhD Thesis*. Seattle, University of Washington.
- OFICINA NACIONAL de ESTADÍSTICAS (ONE)** (various) *República Dominicana en Cifras*, Santo Domingo, Oficina Nacional de Estadísticas.
- OFICINA NACIONAL de PRESUPUESTO (ONAPRE)** (various) *Informe de Ejecución Presupuestaria*, Santo Domingo, Oficina Nacional de Presupuesto.
- SECRETARÍA de ESTADO de TESORO y COMERCIO** (various) *Memoria*, Santo Domingo, Secretaría de Estado de Tesoro y Comercio (1946 ed. published as the Secretaría de Estado de Tesoro y Crédito Público).
- THOMAS, V., NASH, J. & EDWARDS, S.** (1991) *Best Practices in Trade Policy Reform*, Oxford, Oxford University Press for the World Bank.
- TYLER, W. G.** (1981) Growth and Export Expansion in Developing Countries: Some Empirical Evidence. *Journal of Development Economics*, 9, 121-30.

- UNIDAD de APOYO TÉCNICO (UNAT)** (1999) *La Maquila Textil en Honduras*.  
Unidad de Apoyo Técnico,  
<http://www.incae.ac.cr/ES/clacds/investigacion/pdf/cen1600.pdf>.
- UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT (UNCTAD)** (2002) Heads of Agencies Renew Support for Trade as Best Way out of Poverty. The Global Programme for Globalization, Liberalization and Sustainable Human Development Online News, <http://www.unctad-undp.org/news/news260602.htm>.
- UNITED STATES CENSUS BUREAU** (1997) *Historical Statistics of the United States, Colonial Times to 1970*, New York, Cambridge University Press.
- UNITED STATES CENSUS BUREAU** (various) *Statistical Abstract of the United States*, Washington, DC, United States Department of Commerce.
- UNITED STATES DEPARTMENT OF AGRICULTURE (USDA)** (2004) Sugar Statistical Compendium. <http://www.usda.mannlib.cornell.edu/data-sets/specialty/91006>.
- WEISS, J.** (1992) Export Response to Trade-Reforms: Recent Mexican Experience. *Development Policy Review*, 10, 43-60.
- WELLES, S.** (1966) *Naboth's Vineyard: The Dominican Republic, 1844-1924*, Mamaroneck, P.P. Appel.
- WIARDA, H. & KRYZANEK, M.** (1982) *The Dominican Republic, a Caribbean Crucible*, Boulder, Westview Press.
- WILKIE, J.** (1974) *Statistics and National Policy, Supplement 3*, Washington, DC.
- WILKIE, J.** (2002) *Statistical Abstract of Latin America*, Washington, DC.
- WORLD BANK** (2001) *World Development Indicators CD-Rom*, Washington, DC, The World Bank.

## 5 Appendix

Table A 1. Official and parallel exchange rates, (pesos per dollar)

	Official exchange rate	Parallel exchange rate
1900	-	-
1905	-	-
1910	-	-
1915	-	-
1920	-	-
1925	-	-
1930	-	-
1935	-	-
1940	1.00	-
1945	1.00	-
1950	1.00	-
1955	1.00	-
1960	1.00	-
1965	1.00	-
1970	1.00	1.15
1975	1.00	1.18
1980	1.00	1.26
1985	0.51	3.12
1990	0.11	11.13
1995	0.08	13.60
2000	0.06	16.42

Sources: Martí Gutierrez (1997), Astorga, Bergés and FitzGerald (2003); BCRD, *Boletín Estadístico* (various issues).

Table A 2. Selected US tariff acts and trade reforms, 1900-2000

Year	Trade Agreement	Trade Policy
1897	Dingley Bill	Established tariffs of 1.69 and 1.95 cents per pound on raw and refined sugar imports respectively
1914	Underwood Bill	Established tariffs of 1.26 and 1.36 cents per pound on raw and refined sugar imports respectively and reduces tariffs on Dominican sugar by 25 per cent
1921	Emergency Tariff	Raised tariffs on raw and refined sugar to 2.00 and 2.16 cents per pound respectively
1922	Fordney-McCumber Act	Raised tariffs on raw and refined sugar to 2.21 and 2.39 cents per pound respectively
1930	Smoot-Hawley Tariff	Raised full rate on raw sugar to 2.5 cents per pound
1934	Reciprocal Trade Agreements Act (RTAA; Hull Trade	Preferential tariff on raw sugar reduced first to 1.5 cents then to 0.9 cents per pound; full duty lowered to 1.875 cents per pound



	Pacts)	
1934	Jones-Costigan Act	Dominican Republic allotted 3,334 tons of the US sugar import quota
1937	Sugar Act	Sugar quota allotment raised to 32,143 tons
1942	Sugar Act	Reduced preferential tariff on raw sugar to 0.75 cents per pound; full duty lowered to 0.9375 cents per pound
1948	Sugar Act	Sugar quota allotment lowered to 8,1335 tons. Tax on Cuban sugar reduced to 0.5 cents per pound. Full duty reduced to 0.6875 cents per pound in 1949
1951	Sugar Act Amendment; Torquay Conference	Full duty lowered to 0.625 cents per pound. By 1953 Dominican sugar quota allotment raised by 8,703 tons.
1956	Sugar Act	Dominican Republic granted 4.95 per cent of US sugar import market
1960	Sugar Act	Dominican Republic allotment raised from 130,000 tons to 321,857 tons following the redistribution of Cuba's 50 per cent share of the US sugar quota. In 1961 entry fee of 2 cents per pound levied on non-quota sugar from the Dominican Republic, later than year purchases of non-quota sugar from the Dominican Republic are suspended
1962	Sugar Act	Import duty on raw sugar set at 0.625 cents per pound. Dominican quota reduced from 952,000 to 190,000 tons (later raised to 255,000); imports of non-quota sugar resumed
Year	Trade Agreement	Trade Policy
1963	Sugar Act	Raised the Dominican sugar quota to 385,000 tons
1965	Sugar Act	Raised the Dominican sugar quota by 123,020 tons after reallocation of quota countries' deficits
1974	Trade Act	Established the Generalized System of Preferences (GSP) providing free entry or preferential tariffs on select imports
1981	Agriculture and Food Act	Raised import duties and established a system of country-by-country sugar import quotas
1984	Regulation 807 of the US Tariff Schedule	Exempted finished products from payment of import duties except on value-added outside US customs territory; updated in 1998 as the Harmonized Tariff Schedule (HTS) 9802.00.80
1983	Caribbean Basin Economy Recovery Act	Permitted duty free entry of specific goods from CBI beneficiaries except on value-added outside the US customs territory
1986	Section 936, US Internal Revenue Code (Twin Plants Scheme) US Tax Reform Act	Permitted transplant of income tax-free operations of Puerto Rican firms (known as Section 936 firms) to the Dominican Republic subject to the exonerations on customs duties granted under CBI
1986	Special Access Programme (SAP)	Liberated CBI quotas through Guaranteed Access Levels (GAL) for textiles and clothing and lowered quotas on goods manufactured of non-US materials
2000	Caribbean Basin Textile Parity Act (CBTPA)	Extended equal preferential treatment in customs tariffs to Mexico through NAFTA to the Dominican Republic and 23 other Caribbean Basin countries

Note: Caribbean Basin countries include Barbados, Belize, Costa Rica, Dominican Republic, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Nicaragua, Panama, St. Lucia Island, Trinidad & Tobago.

Sources: Blakey (1912), Ellis (1933), Heston (1987), Acosta (2000) 8-A, Dauhajre (1994) Appendix.

Table A 3. Import shares under US import programmes, 1989-2003 (per cent)

No import programme	19 89	19 90	19 91	19 92	19 93	19 94	19 95	19 96	19 97	19 98	19 99	20 00	20 01	20 02	20 03
Costa Rica	22	21	21	23	21	19	18	16	15	18	25	21	23	26	27
Dominican Republic	35	35	36	36	35	36	33	31	30	28	25	24	21	19	21
El Salvador	6	6	6	7	8	9	10	12	12	12	11	13	10	10	9
Guatemala	15	18	17	18	18	18	18	17	17	16	15	17	22	23	22
Haiti	8	7	5	2	2	1	1	1	2	2	2	2	1	1	1
Honduras	13	13	12	14	15	16	18	20	20	21	19	20	17	16	13
Nicaragua	0	0	1	1	1	1	2	3	3	3	3	4	5	6	6
CBI	19 89	19 90	19 91	19 92	19 93	19 94	19 95	19 96	19 97	19 98	19 99	20 00	20 01	20 02	20 03
Costa Rica	25	26	26	24	26	29	29	29	28	28	33	31	30	30	31
Dominican Republic	40	36	40	43	41	43	44	39	42	46	37	39	39	37	36
El Salvador	4	4	3	2	2	2	4	4	3	2	3	2	4	4	3
Guatemala	16	19	15	16	15	11	10	12	11	10	14	13	13	15	15
Haiti	9	7	5	1	2	1	1	1	1	1	1	1	1	1	1
CBI	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03
Honduras	7	9	9	10	9	9	9	9	10	9	9	11	11	10	11
Nicaragua	0	0	2	3	5	5	4	5	5	3	2	3	4	4	4
GSP	19 89	19 90	19 91	19 92	19 93	19 94	19 95	19 96	19 97	19 98	19 99	20 00	20 01	20 02	20 03
Costa Rica	25	21	23	30	25	18	21	30	30	30	31	29	32	15	22
Dominican Republic	51	53	36	33	37	51	45	48	45	23	35	26	20	18	30
El Salvador	4	2	6	6	9	7	3	2	3	11	8	12	8	15	12
Guatemala	7	11	24	23	19	13	21	14	15	24	16	17	20	29	21
Haiti	8	8	5	3	4	2	2	1	1	1	1	2	1	1	1
Honduras	6	5	5	4	5	9	8	5	7	11	9	14	19	23	14

Note: CBI refers to imports under the Caribbean Basin Initiative. GSP refers to imports under the Generalized System of Preferences.

Source: US ITC (2003).

Table A 4. Import shares under the US Caribbean Basin Trade Parity Act, 2000-03

	(per cent)			
	2000	2001	2002	2003
Costa Rica	12	10	9	8
Dominican Republic	36	37	35	33
El Salvador	0	0	0	0
Guatemala	13	12	14	15
Haiti	4	3	3	4
Honduras	35	35	35	37
Nicaragua	0	2	3	3

Source: US ITC (2003).

Table A 5. Dominican exports to the US market, 1905-2002 (million dollars)

	Dominican exports to the US		Dominican exports to the US	
1905	4.7	1960	112.2	
1910	2.5	1965	104.2	
1915	10.8	1970	179.3	
1920	33.9	1975	596.9	
1925	7.3	1980	500.7	
1930	7.3	1985	692.3	
1935	5.0	1990	1,045.0	
1940	5.4	1995	3,511.2	
1945	14.5	2000	4,474.5	
1950	37.8	2001	4,286.5	
1955	63.9	2002	4,271.3	

Sources: US Census Bureau (various issues), BCRD, *Boletín Trimestral* (various issues), IMF, *Direction of Trade Statistics Yearbook* ((various) years).

Table A 6. Dominican export tariff regime, 1904, 1909 and 1919 (dollar per unit)

	1904	1909	1919
Sugar <sup>1</sup>	0.22	none	none
Coffee <sup>1</sup>	0.75	0.80	2.00 <sup>2</sup>
Cacao <sup>1</sup>	1.50	1.00	3.00 <sup>2</sup>
Tobacco <sup>1</sup>	0.70	none	none
Starch <sup>3</sup>	0.50	...	none
Bee honey <sup>4</sup>	0.05	none	none
Cane honey <sup>4</sup>	0.05	none	none
Wax <sup>1</sup>	2.50	none	none
Cattle horn <sup>5</sup>	0.25	none	None
Tortoiseshell <sup>6</sup>	0.50	none	None
Cowhide <sup>1</sup>	1.00	2.00	None
Divi-divi <sup>7</sup>	1.50	none	None
Goathide <sup>8</sup>	2.50	2.00	None
Timber <sup>7</sup>	1-3.00	0.50-1.00	None
Precious timber <sup>9</sup>	1-15.00	none	None

Notes: 1. Per hundred kilos. 2. Applicable to low-quality products only. 3. Per barrel. 4. Per gallon. 5. Per hundred units. 6. Per pound. 7. Per metric tonne. 8. Per dozen until 1904, thereafter per hundred kilos. 9. Per thousand feet.

Sources: DR *Indice* (1937) 17(II) p. 196, 19(I) p. 331, 25(I) p. 185.

Table A 7. Preferential US Market Access Agreements

Agreements	Incentive	Condition
Harmonized Tariff Schedule (HTS) 9802.00.80	Import duties levied on value-added outside US customs territory only	Must be made of US materials
Caribbean Basin Initiative (CBI) 1984	Duty free entry of specific goods from CBI beneficiaries; tax on value-added outside the US customs territory	Applicable only to non-US competing goods; must be made of US materials goods; must have a minimum value added of 35% in the beneficiary country and the inputs originate in the beneficiary or another CBI country
Section 936, US Internal Revenue Code (Twin Plants Scheme)	Permits transplant of income tax-free operations of Puerto Rican firms to authorized countries, same exonerations on customs duties under CBI applicable to Section 936 firms	
Special Access Program (SAP)	Bilateral agreement liberating CBI quotas through Guaranteed Access Levels (GAL) for textiles and wearing apparel, also lowers quotas on textiles and wearing apparel manufactured with non-US materials	Same value-added and origin of materials specifications under CBI
Generalized System of Preferences (GSP)	Unilateral agreement, provided free entry or preferential tariffs on select imports	Minimum 35% of value-added must have been produced in beneficiary country(ies); includes CBI countries, Puerto Rico, and US Virgin Islands
Textile Parity Law, 1-10-2000	Unilateral accord extending equal preferential treatment in customs tariffs to Mexico to the DR and 23 other Central American and Caribbean countries	

Notes: CBI beneficiary countries were Antigua, Barbados, Costa Rica, Dominica, Dominican Republic, El Salvador, Granada, Guatemala, Haiti, Honduras, Jamaica, San Kitts, Santa Lucia and San Vicente. Eligible countries under the Textile Parity Law include Panama, Costa Rica, Nicaragua, Guatemala, El Salvador, Honduras, Belize, Dominican Republic, Haiti, Jamaica, Antigua and Barbuda, Aruba, Bahamas, Barbados, Dominica, Granada, Guyana, Montserrat, Dutch Antilles, Saint Kitts and Nevis, Santa Lucia, San Vicente and Grenadines, Trinidad and Tobago, and British Virgin Islands.

Sources: Acosta (2000) p. 8-A, Dauhajre *et al.* (1989) Appendix.